

THE EFFECT OF MUSIC CURRICULUM MANAGEMENT IN PRIMARY SCHOOL UNDER THE INFLUENCE OF MULTI-CULTURE

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Abstract: This paper mainly depicted multiculturalism, multicultural music education, and the music management classroom management teaching in primary school under the influence of multi-culture, from different theoretical angles. Through the analysis and review of the literature, as confirmed that participating in music activities can help improve a person's life health, teachers should focus on the influence of multi-culture on the music class in primary school level, make the good classroom management of the music class to cultivate more gifted students. The paper also emphasized the professional development and time-time training for the fulltime music teachers in terms of classroom management and leading the music class under multiculturalism concept is very necessary.

Keywords: Multiculturalism, Multicultural Music Education, Curriculum Management, Primary School

Introduction

Nowadays, multicultural music education is more and more widely and has more and more influence, and more and more attention were paid to it in primary school music teaching. Especially in our country the latest primary school music curriculum reform of the "music curriculum standard" (2011) put forward the "carry forward the national music, understand cultural diversity" goal, points out that all nationalities in China should be excellent traditional music as an important teaching content of music course, make students understand and love the motherland music culture, strengthen the national consciousness and patriotism.

Liu (2019) believed that modern educational concepts require teachers to fully consider the specific situation and personal characteristics of students while carrying out music education in primary schools, and constantly optimize teaching methods and models to improve the effect of music education. Especially with the rapid development of science and technology and economy, international exchanges have shown a trend of diversification and three-dimensional. Therefore, teachers should keep pace with The Times, update teaching ideas and improve teaching skills in order to effectively mobilize students' learning initiative and enthusiasm and achieve ideal teaching results.

1. Definition and Theoretical Basis of the Concept

1.1 Multiculturalism

Watson (2005) described the concept as follows: First, multiculturalism is a cultural concept. The core of multiculturalism is the recognition of cultural diversity, equality, and interaction between cultures. Second, it is a view of history. Multiculturalism focuses on ethnic minorities and vulnerable groups and emphasizes the diversity of historical experience. It is believed that the history and traditions of a country are the result of the infiltration of the experiences of different peoples. Multiculturalism is an educational concept. The school must help students to overcome the misunderstanding and discrimination of other cultures and the fear of cultural conflicts, and learn to understand, respect, and appreciate other cultures. Finally, multiculturalism is a matter of public policy. Such a policy assumes that all people have equal social, economic, cultural, and political opportunities and prohibits any discrimination based on race, national or ethnic origin, color, religion and other factors. Multiculturalism emphasizes racial equality and religious tolerance, and its goal is not cultural equality but social equality.

Wang and Wan (2006) discussed the history, methods, and objects of comparative research on multicultural education, as well as the concept of multicultural education, and held that multicultural education is a concept of national education in western countries, but once formed, it has become a trend of national education in all countries around the world. Multicultural education is no longer a concept in the field of ideological image, but an effective concept in the development of national education in the world.

1.2 Multicultural Music Education

Southcott and Joseph (2010), Multicultural Australia, the development of positive intercultural attitudes is essential to building a harmonious society. Music education is a powerful medium to solve the problem of cultural integration. They developed research models: student teacher beliefs, attitudes, understanding of multiculturalism and classroom realization of multiculturalism.

Villodre and Del Mar (2021) mentioned the need to adapt music classrooms in Spanish primary schools to the emerging educational needs of an increasingly multicultural student population. This paper analyzes the different educational approaches to cultural diversity through music and points out how teachers should be trained in intercultural education.

Wong (2016) examined the use of multicultural music education by music teachers in Malaysia. This paper focuses on the relationship between music teacher attitudes and subsequent efforts to develop and implement multicultural music education in music curricula. The results indicate that they need

music teacher training programs that address theoretical and practical issues of multicultural music education in a comprehensive and long-term manner throughout the curriculum.

Kane (2010) explored the preliminary findings of a study on cultural diversity in the music curriculum of five international primary schools in Singapore. The study challenges teachers to teach a wide variety of music lessons. Interviews with music teachers in these schools indicate that the music curriculum in the Singapore International Schools has achieved remarkable results in the cultural diversity of music education.

Volcker (2013) provided a picture of multicultural music education in today's world, especially in the United States and even around the world. This paper analyzed the philosophical foundation, historical development, and enlightenment of multicultural music education, so as to help music educators at all levels to understand and implement multicultural music education.

Zhu (2020) put forward that modern society has entered the information age, and the process of economic globalization and world integration is constantly accelerating. He advocates the establishment and improvement of a multicultural music education system that accepts and absorbs ethnic and ethnic music works, increases the content of music teaching in primary schools, and innovates the music teaching model to promote the further development of education.

Currie and Kylin (2016) recommended a plural concept of music that has no single definition and is separate from a particular discipline, research question or context. This has important implications for how scientific research on music should be conducted: this paper shows that some definitions are complex, that is, they reflect different directions of research and should be retained and, where possible, integrated with other definitions of opposites to what music is and how to interpret it.

Walker (2000) believed that the integration of multiculturalism and music education plays an important role in reflecting and supporting culture and can become a powerful educational force. Multiculturalism permeates every aspect of music education, influencing aesthetics, curriculum content, concepts of musical competence, competence and achievement, and most importantly educational objectives.

Henninger (2018) believed that multicultural music education is an opportunity for students to learn and perform music, and representatives of other cultures may have a positive impact on their musical preferences, familiarity, and respect. To do this most effectively, teachers should elaborate musical concepts and sociocultural contexts, include cultural insiders, recognize elements of authenticity, and engage students in active music-making opportunities. Sui (2016) elaborated the relationship between multicultural music education and new curriculum standards and pointed out that multicultural music education has a great impact on music education in schools in China.

Based on Piaget's cognitive structure theory, Sternberg (1999) discussed the important role of autonomy in building cognitive structure and how to give full play to students' autonomy. Therefore,

constructivism learning theory is obviously different from the professorial learning theory which emphasizes "student-centered" and "active construction". Constructivism itself belongs to a different trend of thought. With the verification of educational practice, people have reached a consensus on the main points of constructivist learning theory.

According to James (1907), man's purpose and intention have physical utility, action effect and practical influence. Teachers should not ignore the purpose of assessing professional title, raising salary, and gaining recognition of academic value. They don't consider that they want to go to a top school and get a good job after graduation.

1.3 Classroom Management

Eiraner (1987) believed that the process of classroom management is from the establishment of physical environment to the shaping and maintenance of classroom order. It is a wide range of continuous activities and activities carried out by teachers to encourage students' participation and improve the cooperation between students and students. Students' responses to problematic behaviors, the cultivation of students' sense of responsibility, and the guidance for students to complete their learning plans.

Tian (1996) defined the classroom management process as the process in which teachers coordinate various teaching factors in the classroom to effectively achieve the predetermined teaching objectives. To complete the teaching task, adjust the interpersonal relationship, harmonious teaching environment, guide students to learn a series of teaching behavior. Chen (2002) points out that classroom management is a good interaction between teachers and students in a specific learning atmosphere and environment. Such interaction exists in the process of teaching and learning, as well as in the process of classroom growth. Focus on control of classroom management, efficient and effective regulation and control of various factors in the classroom, and the actual use of strategies to create a harmonious, up, positive and sunny classroom environment under the influence of interaction between teachers and students, on the mediation system, direct implementation of the students' self-control, promote the smooth implementation of classroom teaching, Finally, it promotes students' self-realization, self-awareness and self-discipline.

1.4 Classroom Management of Music Teaching in Primary Schools

Johnson and Bany (1970) pointed out that classroom management is a process or process of building and maintaining a classroom community in order to achieve the ultimate educational goal.

Carter (1973) believed that the process of classroom management is used to complete, manage or guide the problems involved in classroom activities to achieve educational purposes, such as the use

and storage of learning materials, class style, class appearance, democratic atmosphere, classroom layout, teacher-student relationship, and even the completion of classroom assignments.

McLeod (2006) believed that, far from guiding students to obey, classroom management should be or become the internalization of students' self-understanding, evaluation, and self-control. Liu (2003) believed that the direct purpose of classroom management is to promote the smooth progress of classroom teaching by effectively adjusting various factors in the classroom and adopting appropriate strategies under the role of the intermediary system of teacher-student-student interaction. Ultimately, it is students' self-control and self-realization.

Chen (2007) pointed out that the teaching situation is managed by teachers, the teaching process is controlled by teachers, and the learning activities are controlled by teachers and students. Students are guided by teachers, the teaching goal is through teachers, and the learning effect is through students' skills, which is the whole process of classroom management.

Li (2010) put forward the specific view of classroom management from the perspective of educational prevention. He believed that the key to the success of classroom management is not how to solve problems, but how to prevent problematic behaviors.

2. Previous Research on the Multi-Culture on the Music Class

2.1 Previous Research on Influence of Multi-Culture on the Music Class in Primary School

Legette (2003) discussed the attitudes, values and practices of music educators in public schools towards multicultural music education. Public school music teachers in the multicultural music education in common attitudes, values and practices, the most frequent used multivariate culture resources, multicultural activities, public school music teachers accept the location of the multicultural education and the way, as well as rural, urban and suburban public school music teachers in their differences in the multicultural music, to better understand the needs and values of multicultural education (Duke and Simmons, 2006).

Kong (2020) believed that with the arrival of the information age, the dissemination of culture and innovation is also accelerating. In the phonetic teaching of primary schools, different cultural understandings of musical works produce different values. According to Clift and Hancox (2001), this kind of complex and diverse communication background has different influence on music teaching in primary schools and has produced a variety of problems. On this basis, music teaching must be combined with the background and development of multicultural communication teaching mode reform, as well as on how to integrate the multi-cultures in primary school music teaching to improve the effect of primary school music teaching.

Lu (2019) pointed out that with the rapid development of The Times, the society has entered a multi-cultural pattern, and a variety of musical cultures are presented to primary school students. From the beginning of the first round of curriculum reform, after more than ten years of reform has made a lot of achievements to be proud of, but we should also objectively recognize that there are still many shortcomings. As an important part of primary school teaching, how to carry out primary school music education from the perspective of multi-culture has become an important issue in the current educational environment (Othman and Ruslan, 2020).

2.2 Previous Research on Classroom Management of Music Class in Primary School

Lemlech (1987) pointed out the role of classroom management, which can be regarded as a kind of benign classroom cultural life, which can develop students' potential, improve their learning, and maximize the efficiency of classroom life. Wu (2006) mainly emphasized that the establishment of a good classroom atmosphere is conducive to reducing classroom conflicts between teachers and students. His classroom management principles, in a sense, can be said to provide a research paradigm for education in his book, he says, students must be prepared before the first meeting between development and establish a kind of specification, whether or not well trained and experienced teachers, or feel "half-life" of new teachers, or the lack of experience of students, are the same. Classroom management strategy research, including student psychology research, classroom routine and norms formulation and implementation, classroom management evaluation research, classroom problem behavior research, etc.

Liu (2013) pointed out that the essence of classroom management is a teacher according to their own teaching goals or tasks application of philosophy, education, science and management of comprehensive knowledge and skills used in classroom teaching, based on the principle of specific, some measures and methods, to build a benign classroom teaching environment, it can induce the students' curiosity, Stimulate students' emotion, build students' confidence, enhance students' willpower, cultivate students' interest.

Conclusion

In the field of music education, an effective music teacher should not only have the knowledge and skills to set appropriate goals and expectations, but also need to effectively provide knowledge and methods, and direct and monitor the performance of musical instruments, let students progress, and learn music correctly. Teachers' classroom effects have a positive impact on students' learning, but some experienced teachers may object because they are accustomed to regular teaching and are unwilling to take part in training to change the way they teach. This paper depicted the music management classroom management teaching in primary school under the influence of multi-culture.

Through the analysis and review of the literature, it can be confirmed that participating in music activities can help improve a person's life health, such as improving lung function, breathing, improving mood, and reducing stress. In educational institutions, teachers should focus on the influence of multi-culture on the music class in primary school, make the good classroom management of the music class in the primary school level. The professional development and time-time training for the fulltime music teachers in terms of classroom management and leading the music class under multiculturalism concept is very necessary. For the school top leadership level certainly need to support and help the music teachers in various ways to facilitate and guide them to teach in a better organized classroom and building multiculturalism climate to promote the students' music learning as much as possible. At least, it was suggested to consider the multi-cultural factors for enhancing the students' interest in music lessons, or real music teaching practices.

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PRACTICAL LEARNING METHODS APPLIED AT THE MUSIC CLASSROOM IN HIGHER EDUCATIONAL INSTITUTIONS OF CHINA

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Abstract: This paper firstly introduced the practical teaching and learning methods that are widely used at the higher education institution in China. Based on teaching objectives and teaching tasks, music teachers organized classroom teaching in many different forms, such as orchestra conductor conducting symphony orchestra, chorus conductor conducting chorus, group singing, group performance, as well as one-to-one individual lessons, one-to-many group lessons and so on. The paper analyzed the individual learning, cooperative learning and peer learning methods that happened always in the music classroom in China, taking Singapore as an example, to illustrate the effects of cooperation learning in various fields of social reality. Finally, to enhance the music teaching practice in China's higher education institutions, this paper suggested the educational leaders, teachers and students to focus more on the use of social network, try to create more school-enterprise cooperation in the real teaching and learning practices for the practical music classroom learning effectiveness.

Keywords: Music Education Practice, Cooperation, Importance

Introduction

Cooperation is the linkage behavior and way of mutual coordination between the two parties to achieve the common goal. Small to family members: parents to educate their children, large to countries, there are short - or long-term, small, or large scope of cooperation and so on. Cooperation can change the status quo. It can make both sides win. It can achieve tasks and results that cannot be accomplished unilaterally. Therefore, cooperation is widely used in education, science and technology, medical treatment, sports, architecture, and other fields. Successful cooperation must have the following conditions: 1). Any cooperation should have a common goal, at least in the short term. 2). Unified understanding and norms. The cooperators should have basically the same understanding of the common goal, realization way and concrete steps. In joint action, partners must abide by commonly accepted social and group norms. 3). A climate of mutual trust and cooperation. Creating a good atmosphere of mutual understanding, trust and support is an important condition for effective cooperation. 4). Has the cooperation on the survival and development of a certain material basis.

Necessary material conditions (including equipment, communication and transportation equipment and tools, etc.) are the prerequisite for smooth cooperation. The optimal distance in space and punctuality and order in time are all components of material conditions (Zhu, 2017).

1. Music Classroom in Educational Practice

Music is a very important learning subject for all children, which can promote brain development, improve interpersonal relationships, and even reduce stress (2011). Music has a power of forming the character and should therefore be introduced into the education of the young (Aristotle). In music education and music practice, there are a lot of cooperative modes: music teachers organize classroom teaching, band conductor conducts the symphony orchestra, chorus conductor conducts the chorus, group singing, group performance, as well as one-to-one individual lessons, one-to-many group lessons... The teacher or the conductor plays a leading role, depending on his experience and leadership and control ability, but also requires the full cooperation of the team members, in order to complete the task and achieve good results and results. Just like individual performance forms such as solo and solo, although there is no cooperation between individuals or between individuals and groups, the coordination of individual's internal physiological organs and the coordination and coordination of the active and passive relationship between psychology and physiology are also a kind of cooperation between ideas and senses.

Since ancient times, the concept, definition, and leadership style of leaders have been extensively and comprehensively studied by researchers and historians. Some believe that leadership is born with a special gift, some focus on the interactive processes and relationships between leaders and followers to achieve common goals, while others focus on creating leaders or situations or events they have to face. In the practice of music education, the expression forms of leadership art mainly include teacher and classroom, conductor and orchestra (chorus), etc.

These music educational practices, which embody the art of leadership, are the process of working together to achieve common goals through cooperation. In this model, students and teachers work interactively and interdependently. In order to improve students' critical thinking and social skills in practice, teachers with leadership roles should actively encourage students to explore and creatively work and learn. Cooperative learning is a teaching technique that requires students to play a more active role in acquiring knowledge. The responsibility of teachers in cooperative learning environments is to guide and assist students in learning, define teaching objectives, provide appropriate materials and observe interactions between students (Adams & Hamm, 1990; Kaplan & Stauffer, 1994). No matter what he is trying to achieve or what he does, he always has no strength to work alone. Cooperation is always the highest need of all kind-hearted people. -- Johann Wolfgang Von Goethe

2. Individual Cooperative and Peer Learning in Music Classroom

2.1 Individual Learning

Individualistic learning has also been compared to competitive learning, where students work alone. Cooperative learning means that students work together to achieve common goals through the exchange of ideas, information, and resources (Johnson & Holubec, 1994). The general educational research on cooperative learning began in the 1970s. Most of this work was carried out in mathematics, reading, language arts and social studies (Slavin, 1983). In these areas, there are many literatures supporting cooperative learning, but there is still a lack of exploration in music education. (Johnson, 1999) identified five elements that a proper structure of a cooperative environment must have: 1). Positive interdependence. 2). Personal accountability. 3). Face-to-face interaction. 4). Interpersonal and group skills. 5). Processing - self assessment.

Some researchers compared and evaluated the effects of cooperative and individual learning, and the results showed that cooperative learning strategy is an effective teaching method of music. Students in the cooperative group showed more crossover, interaction and helpfulness. In classrooms where collaborative learning is used, students perform better than individuals and exhibit a more positive attitude toward learning.

Holloway (2001) also found that the use of cooperative learning significantly improved the overall music listening skills of university music students. Compared with traditional lectures, collaborative learning helps improve listening skills in melody, rhythm, and timbre. Under the background of chorus class, an observation and evaluation will be made on the visual reading skills of adolescent women (Agashe, 2012). Students warm up in a large ensemble environment, break up into groups and do group work for 10 to 15 minutes. The results showed that students' ability to read tones and rhythms improved significantly when they participated in group activities compared to their performance under the guidance of a teacher.

There was a significant difference between the students who worked cooperatively in the music group and their peers who worked in the traditional teacher-supervised classroom. Compared with other music teaching methods, cooperative learning did not significantly improve students' composition ability. Therefore, not all cooperative learning is superior, the instructors should choose whether cooperative learning is needed according to actual needs and different subjects.

2.2 Cooperative Learning

Cooperative learning is a technique that changes teaching strategies rather than content. (Vygotsky, 1987) put forward such a theory: "what children can do collaboratively today, they can do independently tomorrow". The field of general education research has clearly seen the advantages and

effectiveness of cooperative learning in the classroom and in various subjects. Explore best practices in music education in innovative ways and encourage teachers to conduct practical research in their own classrooms. Cooperative learning is a successful teaching tool, so it is necessary to continue the research in this field in the future. Under the guidance of experienced teachers, effective cooperative learning is the key to success. Weis (2001) and Kirk & Macdonald & O'Sullivan (2006) studied and found that teachers with solid professional knowledge, rich teaching experience, good cooperation and dedication are good mentors.

In the traditional classroom environment, students do not depend on each other, and there is no positive interaction process. Compared with individual study, when students need to work as a team to complete a high-quality work, they need to cooperate. Collaborative learning takes longer to create and evaluate, but they are more effective in helping students improve their learning in teams.

Real cooperative learning can stimulate and promote every member of the team. In cooperative learning, students cannot only care about themselves and take responsibility for themselves. Students can share the leadership role and give full play to their talents. Therefore, music educators and school administrators should be aware of the positive effects and benefits of cooperative learning, and often provide a relatively safe and cooperative learning environment to help students improve their professional skills and develop interpersonal relationships through group activities, so as to achieve team success through mutual help.

2.3 Peer Learning

A study conducted by Siw, Guro, & Haral (2018) showed that studying with colleagues or classmates can effectively improve academic performance and learning effect. There is usually such a phenomenon, especially tenor students, to solve the range problem as soon as possible, will often gather to sing high notes, and then according to their own experience and feelings of communication singing methods, constantly summarize experience, mutual promotion, and improvement of individual singing level. As a result, many universities are implementing strategies in practice to improve peer learning. Kokotsaki & Hallam (2007) found that the perception of higher education music majors participating in music creation is conducive to their sense of belonging, making friends, social skills, self-esteem, and satisfaction, thus promoting their personal development and the improvement of comprehensive accomplishment.

In the process of music educational practice, students have participated in peer learning to varying degrees. This includes sharing personal experiences and discussing individual singing methods with peers and taking time to practice with peers (Claire, 1993/94). Classical music majors pay more attention to personal practice, while jazz, pop music and folk music majors, in addition to personal study, often study in social occasions (Siw & Guro & Harald, 2018). These forms of learning include

ensemble practice, listening to recordings, watching video, and discussing with peers. (Sandgren, 2009) found that jazz students spent more time in ensemble practice than classical students.

3. Suggestions for Music Education Teaching Practice

3.1 Music Teaching should be applied with Social Networks in this era

As is known to all, social networks play an important role in today's education system, and social media has become an indispensable part of contemporary life (Nathara & Joseph, 2015). Education is one of the areas where social media and new technologies are used to improve the effectiveness of courses, and social networks have become a powerful educational tool. Computer is a feasible educational tool that can bring positive changes to classrooms and schools in general (Albirini, 2006). The contemporary students must make use of the new teaching mode and change the old teaching mode which belongs to the traditional classroom teaching method.

Currently, students are one of the largest users of social networks. As a teacher, it is very useful and necessary to positively guide students to use social networks scientifically to supplement and strengthen traditional classroom teaching, so that students can make full use of social networks and carry out effective cooperation to improve and promote the teaching effect.

Nowadays, social networks become so popular, and many people are attracted by it. According to (Al-mukhaini&al-qayoudhi&al-badi,2014), supporters of social networks sites say that today without social networking, none can move at all. People of all walks of life use social media as a powerful and time-saving way to communicate and deliver their knowledge and ideas. There is a lot of evidence that social media is conducive to learning activities, helping to share learning results and participate in the creation or generation of collective knowledge (Dabbagh & Kitsas, 2011). Social media is redefining how individuals relate to each other as human beings. It is similar to a dialog that lets people get together to discover and share information (Solis, 2008).

Music is not only auditory art, but also visual art. Social media can help students provide a large amount of the latest and most cutting-edge information on the Internet, which is conducive to promoting students' professional skills learning and learning interest. Especially in music education practice, effective communication between teachers and students is the key to students' success in learning. Teachers and students cooperate with each other through social networks, making full use of social networking sites to chat, share files and video, discuss ideas, submit assignments and papers, send emails to each other and so on (Bonk, 2009) to improve teaching quality and teaching effect.

Vocal music teaching is a practical art, singing is difficult to learn, because singing is an abstract art. Invisible vocal music art, vocal music teachers and students of the teaching cooperation to bring a lot of confusion. The emergence of social network has brought great convenience to vocal music

teaching. The omnipresent network vocal music teaching lets the vocal music learner at any time anywhere can obtain the outstanding teacher and singer's teaching method and the singing method. Solo concerts, art parties, singing competitions, vocal music expert lectures, vocal music online courses, vocal music master classes and other network video, broaden the vision of students, enrich the thinking of students, greatly promote the vocal music teachers and students teaching cooperation. The emergence of social network platform has played a very important role in promoting the rapid improvement and development of vocal music in the world.

The emergence of social network greatly promotes the progress and development of the society. (Jacquemin & Smelser & Bernot, 2014) research shows that students use social media more frequently than teachers. However, social networks are not all about helping students acquire knowledge or fostering collaboration between teachers and students. Many students cannot control themselves well. They are addicted to online games, online gambling, unhealthy online platforms, etc. These social networks destroy the morale of young people and harm their physical and mental health. This phenomenon should arouse the attention of parents, school leaders and teachers, pay close attention to and strengthen the supervision and guidance of these students.

3.2 Music Teaching should be applied with School-Enterprise Cooperation

The training goal of music teaching practice is to adapt to the needs of social development and enterprise users. Therefore, school-enterprise cooperation is very beneficial to the cultivation of professional practical talents on both sides. To adapt to the development of the art industry, students should make contributions to the local art industry after graduation. The school should invite professionals with skilled business ability from enterprises to the school to train music professionals through music practice, so as to improve students' practical ability more effectively and improve the level of practical teaching in the school.

In the early stage of school practice teaching, school leaders should have a quick insight, research the market, analyze the enterprise, and find out the enterprise suitable for business cooperation with the school. Cooperation must be based on the professional and work to meet the requirements of employment. The school organizes students to visit and study in enterprises to enhance communication between enterprises and schools (Cangro, 2004). Schools and enterprises should also participate in the talent development plan, so that the practice teaching of music in schools can be correlated with the work of enterprises. In order to combine the development goals of the enterprise with the teaching process, some experienced teachers can be selected to participate in the management of the enterprise, get some exercise, and then go back to the school to reform the teaching methods and teaching philosophy, so that students can understand the enterprise in the learning process, so that students can adapt to the work of the enterprise faster after graduation. School-enterprise cooperation is the best way

to promote the development of local culture and arts, improve the employment rate of graduates and cultivate applied music performers.

3.3 Taking Singapore as an Example

When Singapore became independent in 1965, it was a poor country with few natural resources. After decades of development, it is now a shining global trade, finance and transportation hub (Jason, & Gopinathan, 2000). It has achieved world-class results in mathematics, science, and culture in the field of education, with many schools ranking among the best in the world school system.

“There is more than meets the eye in the detailed, strategic outlay of Singapore’s education system”. Singapore's great achievements were not achieved overnight, but the result of good communication and cooperation between the ministry of education, local government and schools. Singapore has a small land area and a more centralized education system, which makes it easier to implement policies. It is much easier to implement reforms and new initiatives on this scale than in a larger country (Pak Tee Ng, 2007).

Before the independence of Singapore, principals enjoyed considerable autonomy under the decentralization and division of the postwar British colonial government, but under the guidance of this policy, the educational achievements were not obvious. What really transformed Singapore from an underdeveloped society in the 1960s to a developed country today began with the vision and leadership of their founding prime minister, Lee Kuan Yew, who actively promoted economic reform and development, and established the provident fund system, the corruption investigation bureau, and carried out several policies including education reform (Charlene, 2009). It has done this through strong centralized control and, to a large extent, by winning the hearts and minds of its people. The new Singapore government has implemented strict central control, and principals have lost their autonomy. Instead of more leadership, they are only the managers and executors of the government's education policies (Daniel, 2017). Principals can only motivate their teachers and students, actively promote innovation in schools, and give them motivation and ownership. However, in terms of innovation participation, the impetus for change is still mainly from the ministry of education, and the policies and regulations of local governments and schools should still follow the guidelines of centralization (Choy, 2011).

Conclusion

The educational environment is always dynamic and changing, including new management and institutional structures, as well as new curriculum, teaching and evaluation mechanisms (Ho Wah Kam, 1999). This is due to the strong harmony and solidarity of Singapore society - the sincere cooperation between the ministry of education, local government, and schools. Mutual trust and cooperation among

national leaders, local officials, principals, teachers, and students have contributed to the high efficiency and integrity of the development and improvement of the education system. To enhance the music teaching practice in China's higher education institutions, the educational leaders, teachers and students should focus more on the use of social network, try to create more school-enterprise cooperation in the real teaching and learning practices for the practical music classroom learning effectiveness.

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THE APPLICATION OF DISTRIBUTED LEADERSHIP FOR EDUCATIONAL INSTITUTIONS IN THE 21ST CENTURY

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Abstract: The rapid, complex, and uncertain social changes have also posed challenges to the leadership mode of schools. The proposal of distributed leadership has aroused great attention of people. Distributed leadership provides a theoretical framework for examining leadership practices. This requires leaders at each level to cooperate and lead together according to their respective functions to achieve the goals of school education. Related research also found that distributed leadership is more conducive to sustainable improvement. This paper looks for ways to apply distributed leadership: to establish a clear vision and goal, to improve the school management system and improve the school leadership evaluation system, to carry out continuous teacher training to promote teachers' initiative in school management, and to create a school culture of respect, trust and cooperation. It is hoped that the research on distributed leadership will improve schools, teachers and students to different degrees. Meanwhile, it is hoped that the practice of distributed leadership can be further promoted rather than limited to a few schools, and that it can provide some references for the improvement and development of other schools and organizations.

Keywords: Distributed Leadership, Educational Institutions, The Implementation

Introduction

In the 21st century, the rapid, complex, and uncertain social changes also pose challenges to school leadership. Distributed leadership put forward aroused people's great attention, which kind of leadership style can, however, do not like distributed leadership, appeared has aroused people's great interest and give a high degree of attention (Miskel & Hoy, 2001), only tell practitioners effective leaders have what kind of characteristics, has been difficult to respond to the demand of the practice, education is more and more attention of researchers led by leadership how to play a role in the actual problem. What kind of leadership style can continuously promote the progress and improvement of the school? Distributed leadership can deal with these problems.

Cultivating an educational business has always involved creativity. Seeking out new ways of working to meet shifting demand is an essential skill of today's innovators. And approaches to

leadership are no exception. For generations, most educational organizations relied on traditional hierarchies. A chain of command in which only those at the top made decisions. Fast forward to today and many start-ups are choosing to buck this trend by incorporating distributed leadership for educational institutions in the 21st century.

1. Distributed Leadership

As the term suggests, distributed leadership basically means shared management. Popular within educational institutes, this concept disperses decision making from one individual to a collective group. New businesses aside, this naturally involves a major organizational restructure, which is a difficult request for companies with the old traditional ways of management.

For a long time, school leaders have been conducive to promoting student achievement (Waters, Marzano, & McNulty, 2003). Although major leaders have contributed to the success of students, it is far from enough and requires the cooperation of teacher leaders (Danielson, 2006). In addition, people in formal and informal positions constitute the process of school leadership practice, which is formed by the interaction between leaders and followers (Spillane, 2005). Therefore, distributed leadership cannot be viewed from the perspective of personal knowledge and action (Spillane, Halverson, & Diamond, 2001). Distributed leadership is not a new concept (Miskel & Hoy, 2001), but it has been more widely used since the 1950s (Gronn, 2002). To support the improvement of schools, the main goal of distributed leadership is to build a stronger leadership infrastructure (DeFlaminis, 2009). To improve teaching and promote higher achievement, principals and teacher leaders play a role in distributed leadership teams (Gronn, 2002). Distributed leadership work has positive effects, such as leadership practice and building teaching improvement capacity (abdul-jabbar, 2013). Therefore, leadership is not the leadership of one person or imposed on others, but the interaction between leaders and followers.

Distributed leadership can solve leadership problems in teams and organizations (Heller and Firestone, 1995), which requires Shared leadership, not just one person's leadership (Gibb, 1954). Distributed leadership and sharing with multiple people enhance the sense of participation and common responsibility of the team (Whitby, 2006). The implementation of distributed leadership is conducive to increasing the cooperation between teachers and between teachers and managers (Buttram, 2009). In practice, distributed leadership refers to the cooperation and interaction between leaders and followers, and their cooperation depends on each other (Spillane, 2005). Harris (2013) puts forward that distributed leadership is to actively coordinate, promote and support the leadership of others. The center design for schools focuses on training teachers' leaders and building distributed leadership teams (DeFlaminis, 2009). Distributed leadership should be redesigned for schools or organizations, and the vision and values should be transformed accordingly. According to Spillane et al. (2001), distributed leadership method uses leadership practice to rebuild the structure in schools. Distributed leadership is the key to creativity, so it is necessary to determine how to transfer these methods to school practice.

2. Different Leaderships in Shared Distribution

2.1 Team Leadership

Team leadership sees a team leader as the leadership practice demonstrated by a leader, a group of leaders striving to achieve a specific goal. Without such groups, teams cannot function (Zaccaro, Rittman, & Marks, 2001). Leadership is not just a role, but also is the process of leadership, and team leader's role is crucial, because the leader is to improve processes, tasks and goals of the team, it is also an important factor to maintain excellent team, because it is an effective cooperation between the team, to achieve the common goal Northouse (2018).

There are many team leaderships models, but one of the better known is probably Hill's team model. The team leadership model proposed by hill puts leadership above team efficiency (Zaccaro, Heinen, & Shuffler, 2009). To help leaders diagnose team problems, it provides a psychological roadmap and takes appropriate action to correct team problems (Northouse, 1999). Hill's team model allows leaders to execute specific actions to improve team efficiency (LaFasto and Larson, 2001).

2.2 Shared Leadership

Shared leadership is an emergent team process defined by the distribution of leadership functions among multiple team members. Past empirical research on shared leadership has operationalized it as the overall quantity of leadership in the team, neglecting the essence of the conceptual definition – the distribution of leadership.

To align the conceptual definition with an operational one, we examined shared leadership as network centralization using social network analysis. Using this operational definition, shared leadership was positively related to team performance. Additionally, longitudinal analyses revealed that shared leadership increased over time and was differentially related to antecedents of trust and team collectivism. In 21st century, leadership plays a crucial role in teams working in complex environments, while shared leadership or team leadership is an effective strategy for educational institute's development in this era.

2.3 Leadership Function in Shared Distribution

One of the primary questions of interest was the degree to which team leadership functions as argued for within the broader literature on team leadership would generalize to teams operating in extreme environments. Despite the growing interest in extreme teams, there is currently a lack of understanding concerning leadership within such teams, as the literature has predominantly focused on team leadership within the context of traditional organizations (Zaccaro, & DeChurch, 2012).

Many studies investigated team leadership within the context of teams operating in extreme environments, with a specific focus on teams operating in isolated, confined environments. It is very important to identify team leadership functions as well as a subset of structural characteristics associated with team leadership in **extreme** environments (i.e., formality of leadership, locus of leadership, and leadership distribution). Results suggest that team leadership functions such as team problem solving, supporting social climate, structure and planning, and sensemaking are among the most prevalent (Shawn, Marissa. Shuffler and Wiese, 2018). Results also indicated that the degree to which leadership is distributed throughout the team as well as the formality of leadership varies across action and transition phases of the team's task cycle (Bell, Fisher, Brown, & Mann, 2016).

3. The Application of Distributed Leadership

The key to distributed leadership is leadership practice, which mainly refers to how leadership is distributed in a specific school context. For example, school leaders need to develop a vision for school development, but the process of how these functions operate in school practice is ignored. In terms of how leaders are distributed, Spillane et al. divided three kinds of distributions in leadership practice: The first is cooperative distribution, which is for common tasks, such as the members of the organization to complete at the same time; The second is collective, where leaders work independently but depend on each other; The third is the coordinated distribution, which stresses that the completion of tasks depends on a certain order. (Spillane, Halverson, & Diamond, 2004). Whether or not members of a group act in the same way, these three distributions emphasize that deep interaction is what makes good work. Distributed leadership from the perspective of practice is not to provide a new manual for school leaders, but to provide a diagnostic tool for school staff to help practitioners understand, reflect, and improve leadership practices. Based on the advanced experience of distributed school leaders, the following application methods of distributed leadership can be analyzed.

3.1. Establish A Clear Vision and Goals

Leadership requires a cohesive team rather than the leadership of one person, and the implementation of distributed leadership is inseparable from the cooperation of organization members. Therefore, in this state, if a clear vision and development goal are not established, the implementation of distributed leadership will cause the members of the organization to act according to their own ideas and not cooperate with each other, it will lead to fragmentation and disunity. Therefore, one of the key points of the implementation of distributed leadership is to build a clear vision and goals that teachers highly recognize. It is worth noting that vision shaping is not a simple top-down or bottom-up process. It is difficult for the organization members to accept the vision proposed by the leader by relying only on the top-down leadership approach, and the vision may not be suitable for the conditions and

development trend of the school due to the cognitive limitations of the organization members. A leader should play a leading role, be good at presenting a vision, and seek opinions and ideas from the members of the organization to gain their understanding and support. As Harris (2003) points out, in the face of various environmental challenges, successful school leaders should communicate their vision and goals with the members of the organization through specific language, words or behaviors.

3.2. Improve the School Management System and Improve the Evaluation System of School Leaders

As for the current school management system, the distributed school leaders do not advocate to completely overturn it but advocate to inherit the effective management mode and method, and at the same time diagnose the problems and deficiencies in the existing management system, so as to apply the right medicine to the case (Deng, 2014). School management in current our country exists too one-sided pursuit of instrumental rationality and efficiency, the administrative authority excessive reinforcement, level control, competition atmosphere between teachers and lack of mutual trust and cooperation and other issues, must from the system level of value guidance, professional and cooperation on security, increase the elasticity of school management and vitality, highlighting the management essence of education teaching services(Liu & Chen, 2017).

The examination and evaluation of school leaders such as principals by higher administrative departments play a guiding and prescriptive role in their behaviors (Liu & Chen, 2017). Therefore, we should redesign of the principal leading personnel such as school assessment standards, assessment standards to the reform of curriculum and teaching effect and student's growth and development, the school organization structure optimization, etc, tilt, for school leadership from multifarious daily affairs and has nothing to do with the course teaching, students' development in administrative affairs and create conditions to guide them to focus on a line teaches love affection, emphasizing professional guidance and implementation of a distributed school leadership and promote the transformation and development of the school (Deng, 2014).

3.3 Carry Out Continuous Teacher Training to Promote Teachers' Enthusiasm to Participate in School Management

Teachers are one of the important executors of distributed leadership in schools.

The improvement of teachers' quality can provide a solid talent guarantee for the successful implementation of distributed school leaders. Therefore, continuous teacher training should be carried out to continuously improve teachers' quality, especially their leadership ability, arouse their initiative and enthusiasm to participate in school management, and lay a solid foundation for the effective and long-term implementation of distributed school leaders (DeFlaminis, Abdul-jabbar & Yoak, 2016).

Distributed leadership means that every member of an organization is likely, even necessary, to assume leadership functions, although this sharing of leadership roles is variable. In this sense, the effectiveness of leadership depends to a large extent on the leadership of each organization. If members of the organization lack leadership skills, they will be nervous about their leadership responsibilities and will not be willing to take the initiative; even if they assume leadership responsibilities, it will be difficult to achieve good results. Fullan (2003) also points out that leaders are not born with them, but through the cultivation. School members must develop leadership skills through further education, work experience, and mutual learning so that they can readily share the responsibilities of school leaders (Hay Group, 2004). It can be said that for distributed leadership, it is very important and necessary to improve the leadership ability of the members within the organization. They want to improve leadership ability among the members of the organization does not only mean the mastery of leadership knowledge and skills, but also the establishment of the values, beliefs, and qualities of effective leadership among all members. Knowledge and skills are visible and not difficult to improve, but values, beliefs and character are ingrained and not easily changed. According to Hay Group (2004), One of the obstacles to improving the leadership of an organization's members is that they don't see themselves as leaders, or that they assume leadership roles for themselves. Therefore, we should not only focus on the use of leadership knowledge and skills, but also deliberately change their attitudes, beliefs, and values.

3.4. Building A School Organizational Culture of Respect, Trust and Cooperation

The implementation of distributed leadership is accompanied by cooperation and debate among organization members. As leaders, organization members are required to have certain boldness and courage, which are inseparable from the soil of organizational culture characterized by respect, trust, and harmony. Among them, the culture of trust and respect includes three aspects (Arrowsmith, 2005). First, leadership is more of a value guidance or moral leadership, which leads teachers through ideas, values, and commitments. Second, leaders should understand teachers' thoughts and goals through empathy. Third, teachers' honesty and mutual trust enable them to face up to the problems in their work instead of trying to hide or turn a blind eye. A collaborative culture advocates cooperation and support among school members committed to the realization of Shared vision and goals.

The culture of cooperation can be created in two ways (Smith & Piele, 2006): one is to explain the value and expectation of cooperation to teachers; The second is to lead by example and example of cooperation in work. Meanwhile, the implementation of distributed leadership strengthens the formation of cooperative culture because distributed leadership improves the cooperation among teachers, and teachers can feel support from each other in such an environment (Harrison, 2005).

Conclusion

To effectively implement distributed leadership, it is necessary to commit to share leadership and establish clear vision and goals among school members, carry out continuous teacher training to promote teachers' initiative in school management, and create a school organizational culture of respect, trust, and cooperation. Even though the distributed leadership theory is aimed at traditional leadership theory leaders too much emphasis on the role of the individual, and that that rely on multiple leadership within the organization resources guidance and completely different size, complexity, and different range of tasks, but this does not mean that the traditional individual leadership theories are good for nothing but provides a complement each other's point of view about the school leaders. This point of view is also Shared by Gronn (2002), who believes that leadership behavior can be either an individual behavior, or an independent or consistent behavior of several individuals.

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STRATEGIES FOR IMPROVING INSTRUCTIONAL LEADERSHIP OF SECONDARY SCHOOL PRINCIPALS IN CHONGQING, CHINA

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Abstract: Based on the review of the secondary school principals' leadership in Chongqing, China, this paper analyzed the effects of principals' instructional leadership on students' achievement and education reform; and provided some strategies for improving secondary school principals' leadership in Chongqing, China. The strategies for enhancing the instructional leadership for Chongqing secondary school principals should be concerned and conducted in school development, in the teaching process, and in student learning. The situation and difficulties for implementing these strategies are explained, and suggestions for school leadership team, to change the mind and innovate of eclectic pragmatic action were provided.

Keywords: Instructional Leadership, Students' Achievement, Secondary School Principals in China

Introduction

Studies on the principals' instructional leadership started in the 1980s, has become the central discourse of the theoretical research on educational leadership, as well as on the quality of school education (Alig-Mielcarek, 2003). Principals as working in the leading position, they have to face many challenges in the school management process, thus their personal charism and leadership may become an important prerequisite for the continuous development of a school. Principals' school-running thoughts, leadership style and work attitudes directly influence the school's management style, teachers' collaboration, and the overall school's running (Bossert, Rowan, & Lee, 1982). It is an exaggeration to regard the principal as the "soul" and flag of the school, and the attachment of the principal's "soul" is ultimately his ability to the instructional leadership of the school (Gao, 2015).

Many researchers have pointed that students' achievement in school can be indirectly influenced by school leaders' leadership (Green, 2010; Guthrie & Schvermann, 2010). Early, Glasman (1986) had pointed that the principal should change the role of operator from school to the role of the teaching leader, should take the teaching as the main responsibilities and tasks, should become the expert in teaching, so as to improve the overall quality of school and student performance. The study of *Success for All* conducted by Slavin (1996) also called people's attention to the instructional leadership of

principals, as it confirmed that the successful school principals are usually focused on teaching and learning and have strong instructional leadership. Though an individual may not become an expert in everything, due to the increasing complexity of education and practical needs, as Reynolds (2018) explained in his study, he also believed that a school principal must be strong enough and gradually become the experts to achieve the shared vision through his leadership.

For this regard, it is crucial to understand the connotation of principals' instructional leadership and its impact on students' achievement (Cayetano, 2011). First of all, the principal should be an expert in instruction with a high level of teaching. Moreover, the principal is required to play an exemplary leading role not only in subject teaching but also in providing the clear guidance for teacher's professional development (Bossert, Rowan, & Lee, 1982). Secondly, the principal should not only be the leader in the teaching place, but also need to carry out relevant leadership behaviors and deal with the managerial affairs in the service of teaching, as well as to promote the teaching activities outside of the classroom. As Alig-mielcarek (2003) stated that the school leaders should carry the following three functions, including defining and communicating common goals, monitoring teaching process and providing feedback, and promoting professional development within the school. Therefore, the principals in China are used to be regarded to play the dual roles of "leading teaching" and "leading for teaching" as Zhang & Zhao (2018) pointed.

1. Education Leadership in China

1.1 Principals' Leadership

Chongqing is a municipality directly under the Central Government in the western region of China. It is the economic and cultural center in the western region of China. The educational development level of this city has a leading effect on the whole western region of China. Secondary school is an important stage for Chinese students' basic education, and it is a primary task and challenge for every secondary school principal to study on how to improve students' learning achievements in Chongqing.

Since the 1980s, the overall quality of the leadership of secondary school principals in China has been greatly improved, and so did the secondary school principal in Chongqing. One of the most important steps that is focused is to improve the instructional leadership of secondary school principals in China. The Ministry of Education of the People's Republic of China (2001) issued the *Guidelines for basic Education Curriculum Reform (Trial)*, which analyzed clearly about the situation of curriculum management, as it is too centralized. Therefore, the state, local government and school curriculum management is expected to be enhanced. The three-level curriculum management policy from the government required that every school need to participate in the curriculum management of basic education, in order to change the former role of school in the passive implementation of curriculum

development. As the most important leader of secondary schools, principals have certain resources and responsibilities, and shoulder the role and task of leading school curriculum and teaching development (Li, 2012).

Ministry of Education of the People's Republic of China (2013) issued that *Compulsory Education School Principals Professional Standards*, school principal is to fulfill the school leadership and management responsibility of professionals, they should follow the character in the first place, education talented person for the job, lead the school development, pay attention to improve their own ability and the basic concept of lifelong learning. Visible, school leadership work not only in administrative management, also need more rich diversity to lead the development of school education, and teaching as a very important area in school education, high school principal natural to shoulder the burden of leadership school teaching development, must have the ability to lead and promote the teaching reform, one of the most important leadership, this ability is also the instructional leadership.

In China's basic education reform, secondary school principals, as school leaders, cannot effectively promote curriculum reform if they only deal with administrative affairs and lack effective instructional leadership. The principal plays a leading role in the school, he should be a connecting link between the preceding and the following in the school's instructional leadership system. The importance he attaches to instructional leadership and the improvement of his instructional leadership may directly relate to the improvement of the whole school's teaching quality. The principal's effective instructional leadership is the key to the success of school education and quality of teaching (Gao, 2015). The current reform has posed new challenges to the principals' instructional leadership. However, it is necessary to realize that the reform must start with improving the principals' instructional leadership, so as to enhance the school's teaching quality and promote the school's continuous development gradually (Li & Zhao, 2011).

As parents pay more and more attention to the education of their children in Chinese society, parents always like to invest more in the education for their children, thus, the parental desires to send their children to better schools are growing, which reflects their demand for a higher level of education. Meanwhile, as the quality of Chinese basic education between urban and rural areas, or even between schools are very different, this may lead to the contradiction between education demand and education fairness demands, since the current actual education development level and the expected level may not be balanced. As the result, people's demand for high quality education resources has been far beyond the supply capacity of government and society. This may also reflect the needs of principals' instructional leadership in the real school management practically (Gao, 2015).

1.2 Principals' Instructional Leadership

To meet the needs of China's basic education reform as mentioned in the above part, this researcher believed that instructional leadership of secondary school principals should be improved,

based on the connotation development of education and the implementation of quality education in Chongqing, as Li (2012) confirmed in her study.

Few researchers like Zhao & Song (2014) also stated that the instructional leadership performance of primary school principals is relatively better than that of secondary school principals, as many secondary school principals are not doing so well in terms of motivating students, setting goals and promoting teacher growth. Gao (2015) supported this, as he found that secondary school principals' ability to guarantee teaching is low and the role of new educational concepts is weak in his study. Yan (2017) confirmed that the instructional leadership of secondary school principals are relatively weak in guiding students' management, though the instructional leadership level of school principals in urban schools is higher than that in rural schools. Several problems on the instructional leadership behavior of secondary school principals as Cen (2016) illustrated in his research, include: the current general situation of the instructional leadership level of secondary school principals is not optimistic, the lack of teachers and students' position, the quality is largely affected by the size of the school, as well as the lack of effective management of students.

This researcher has informally interviewed some of principals in Chongqing secondary schools, in fact, most interviewed principals are not aware of significance of instructional leadership currently. As they just believe that the management of schools is to ensure the normal operation of school work, and they feel that their school has assigned many directors and leaders at different levels to supervise the teaching and management, so no need to worry too much about instruction or leadership. In other words, principals may not even realize what instructional leadership is, in their work. Some principals seldom pay attention to the integration and development of the school's teaching and curriculum resources, neither pay much attention to implementation of the school's teaching tasks, or improve the school-based curriculum as Si reported in her study of 2014. There are also principals and teachers are seldom realizing the needs of upgrading the curriculum. All these may happen, due to the school principals' unawareness of instructional leadership, or because the school leaders' instructional leadership has not been sufficiently recognized and practiced (Si, 2014).

1.3 Three Dimensions of Instructional Leadership Model

Previous researchers like tried to prove that school principals' instructional leadership will contribute to students' achievement (Cayetano, 2011; Alig-mielcarek, 2003). Alig-mielcarek (2003) pointed that though in many cases, principals are not involved in specific teaching activities, they have a great deal of responsibility for creating a good learning climate. Alig-mielcarek (2003) created an instructional leadership model with three dimensions, he believed that leaders should communicate common goals, monitor and provide feedback on the teaching and learning process, and promote professional development within the school,

- 1). Defining and communicating common goals

Leaders should ensure that staff are clear about the school's vision and create shared goals and work with them actively. These goals determine all the main content, focus, direction, progress of the teaching. And the final goal of a school is to improve student achievement, which needs the school leaders and teachers strive to increase the input in teaching practices and learning activities (Alig-Mielcarek, 2003).

2). Monitor and provide feedback on the teaching and learning process

Leaders should ensure the time of school teaching activities, monitor the whole process of teaching activities, including classroom teaching, extracurricular teaching, teachers' and students' communication, and so on. They should also provide guidance and cooperate with the teachers, so as to upgrade their teaching skills and student achievement. In addition, leaders should provide timely feedback to teachers, students, parents and the community about learning (Acheson & Gall, 2003; Glanz, 2006; & Kelehear, 2008).

3). Promote the professional development of school-wide

Leaders are expected to keep an eye on professional development within the school, constantly examining the classroom to learn about student achievement and knowing the strengths and weaknesses of each teacher (Kelehear, 2008). Based on the results of the visits or observation, the leaders should try to provide the teachers with more professional development opportunities, which are consistent with the school's goals. As it is particularly important for improving the teaching quality of schools, and for improving students' academic performance (Glanz, 2006).

2. Effects of Principals' Leadership on Students' Achievements

Theoretical research on instructional leadership is deepening in some Western countries, but it is still in its infancy in China, and its understanding is relatively vague (Li, 2012). In view of the current reality of basic education curriculum reform in China, it is urgent to strengthen the research on it. To explore the instructional leadership of Chongqing secondary school leaders can, to some extent, make up for the lack of research on the instructional leadership of Chongqing secondary school principals as Feng also suggested (2002).

It may promote the professional development of Chongqing secondary school principals and improve their instructional leadership. Education reform endows principals with certain curriculum and teaching management power, and instructional leadership can provide principals with a stage for power practice (Li, & Zhao, 2011; Li, 2012). Studying the instructional leadership of Chongqing secondary school principals may help develop some instructional leadership strategies and promote their professional development to some extent (Li, & Zhao, 2011).

It may promote the professional development of secondary school teachers in Chongqing and improve their teaching ability. It may also assist in timely mastering teachers' career dynamics and professional development degree, establishing reasonable and effective teachers' professional

development plan, stimulating teachers' teaching enthusiasm, promoting the construction of teaching management mechanism, and guide teachers' self-development in the learning organization (Zhao, 2010).

It may help improve the academic achievement of secondary school students in Chongqing. If secondary school principals can have a clear understanding of knowledge related to teaching and curriculum, they may be able to improve teachers' teaching efficiency, improve school teaching quality, and further improve students' learning achievements (Glatthorn, & Jailall, 2016).

It is conducive to the instructional leadership of Chongqing secondary school principals to adapt to the deepening reform of basic education curriculum in China. The curriculum reform of basic education in China requires that principals' instructional leadership should be realized, emphasized, and improved in the real practice (Feng, 2002; Li, & Zhao, 2011). Though the principal's instructional leadership may also be confronted with many difficulties in reality, and it is difficult to play a leadership role effectively (Gao, 2015). Studying the instructional leadership of Chongqing secondary school principals can help the principals learn more from the global educational perspectives, and to better play their leaders' role in the current education reform.

3. Strategies for Improving the Instructional Leadership of Chongqing Secondary School Principals

According to the mentioned three dimensions of the principal instructional leadership, the following promotion strategies will be proposed by this researcher after studying the current situation and educational research conducted in China (Yan, 2017; Zhao, & Song, 2014; Zhang, & Zhao, 2018).

1). Improve the instructional leadership strategies of Chongqing secondary school principals in school development.

Improve the personal quality of secondary school principals, reasonably allocate secondary school resources, strengthen the construction of teaching culture, improve the overall level of teacher development, promote the overall development of secondary school, ensure the realization of secondary school goals.

2). Improve the instructional leadership strategies of Chongqing secondary school principals in the teaching process.

Improve the evaluation and feedback mechanism of secondary school teaching quality, supervise and evaluate teaching, focus on teacher development, provide a cooperation platform for teachers, and enhance their teaching practice experience

3). Improve the instructional leadership strategies of Chongqing secondary school principals in student learning.

Exert positive influence on teachers, students, and parents, enrich and rationalize the school curriculum system, further arouse the enthusiasm of students through the overall control of secondary school principals on teaching, and finally improve students' academic performance.

3.1 Situations That May Oppose the Strategy Implementation

At present, due to the lack of research on the instructional leadership of secondary school principals in China, the relevant theories and concepts are not aware by the school leaders (Chen, 2016). From the perspective of coping with social and school changes, the instructional leadership construction of secondary school principals in Chongqing is still relatively weak. Gao (2015) commented that in the process of implementing the strategy, if the school leaders have backward cognition of instructional leadership philosophy, insufficient personal leadership ability, lack of professional knowledge and skills, or lack of planning and management, it will easily lead to the failure of strategy implementation.

Teachers are the backbone of schools, the main body of education and teaching, and the key factor affecting the instructional leadership level of secondary school principals. The development of a school, the quality of education, to a certain extent depends on the level of its teachers (Doherty, 2014). In some schools, the age of teachers tends to be younger. Although young teachers have some theoretical knowledge, they still lack practical experience (Chen, 2016). Some school teachers lack the courage to explore and the consciousness of reform and innovation, and these teachers also complain and resist the implementation of instructional leadership strategies (Li, 2012).

In the educational practice, due to the impact of many factors, students and parents will have different ideas with schools' management on some issues. For example, in education and teaching practice, the parents may expect too much or over-emphasis on the child's performance, which will deviate from their original expectation of the healthy growth and overall development of students in a certain extent. If the implementation of school principal leadership strategy changes the students' educational methods and practices, students must change the way they are used to learning. But the parents may think that their original requirements for the school are not met, which will result in the conflict of students and parents in line with school education and teaching reforms, then the implementation of this strategy is likely to raise objections (Si, 2014).

3.2 Situations That May Endorse Strategy Implementation

Under the background of globalization, secondary school leaders should have clear knowledge, management skills, and strategic consciousness, so as to serve as the leadership capital of modern secondary school leaders to deal with various challenges issued by the society (May, 2002). High school principals with the implementation of instructional leadership strategies will be more willing to improve their thinking ability, communication skills, managerial competence.

May & Supovitz (2011) found that individual teachers' teaching activities and teaching behaviors will be greatly improved if they could receive the principals' instructional leadership behaviors. Principals with strong instructional leadership will provide more professional development for all the teachers with more supporting behaviors, and then the student overall performance may also be enhanced. On the other hand, the difference in the scope and groups of principal instructional

leadership will also affect the actual effect of principal leadership implementation. The smaller the number of teachers with the same frequency, the greater the effect. Therefore, school principals with strong instructional leadership and relatively small number of teachers and students are more likely to support the implementation of leadership strategies for high school principals (May & Supovitz, 2011).

Principal instructional leadership can affect students multidisciplinary extensively, from the point of the principal teaching the role of the leadership group, when teaching object leadership role in the high school principal, such as poor academic performance basis, students, family socioeconomic status on the low side and family expectations of students with lower, the so-called “weak students”, can produce positive influence than general students groups and the superiority of influence is bigger (Tan, 2018). Therefore, the implementation of the instructional leadership strategy of secondary school principals is likely to be supported by the disadvantaged students in secondary school and their families.

3.3 Three Pieces of Evidence to Support the Strategy

In the course of seeking the evidences for the implementation of the instructional leadership, this researcher got the following three pieces of studies to support the strategy, they are:

- 1) Cayetano's (2011) research *Instructional leadership and student achievement in Belizean secondary schools*, shows that there is an indirect relationship between students' achievement and instructional leadership. The study found that students who were influenced by principals with higher instructional leadership performed better in Both English and math.
- 2) Doherty's (2014) case study *Instructional Leadership as Practiced by High School Department Leaders: Implications for Educational Leadership Development*, it was found that most of the subjects had not received leadership training before they became high school principals. Doherty believed that leadership training should be mandatory before they became principals, which would greatly affect the implementation of instructional leadership, teaching practice and student achievement.
- 3) Gao (2015) studied *The Improvement of Instructional Leadership of Principals in Primary and Secondary Schools*. Through the research, it was found that the core of principals' ability building is instructional leadership, and principals need to build a common vision of the school through goal decision-making and organization and coordination ability, so as to achieve good operation of the school. Through the guidance of curriculum, teachers and teaching activities to enhance the professional level of the teacher team, and thus improve the achievement of students.

Conclusion

Excellent instructional leadership of secondary school principals is embodied in the establishment of a new development paradigm, the construction of a new school development vision, curriculum and teaching vision, so that school teachers enjoy a happy career, students have a happy learning experience, so that classroom teaching with vitality. Improve Chongqing high school principal instructional leadership is a long process, leaders need to formulate a reasonable career planning, career development in education practice, the pursuit of excellence to develop, and always on the edge of the limits of work, standing in the commanding heights of the era development and education reform, actively seek professional help organizations and individuals, efforts to improve their professional knowledge. In school at the same time, members of the group in the process of sharing, the school has formed a powerful cultural cohesion, group members will have a responsibility on school leadership, a kind of ideal pursuit, at the same time in the mind and innovation of eclecticism pragmatic action, realize the instructional leadership from qualified to good, from good to great.

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AN ANALYSIS OF THE TWO-SIDE EFFECTS OF SHADOW EDUCATION FOR EDUCATIONAL EQUITY IN CHINA

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Abstract: Shadow education is relative to mainstream education and is a general term for after-school tutoring classes. Shadow education has existed for a long time, which shows that there is a certain rationality; as a phenomenon of globalization, China is no exception. This paper mainly reviewed the development stages of shadow education in China, described the two-side effects of shadow education in China, as on one hand, it may bring out a series of education quality opportunities to students, while on the other hand, it may also cause some challenges and problems for education reform in China. Based on the advantages and disadvantages of shadow education that the authors analyzed, some suggestions for further promoting educational equity were also provided for policy proposers in this paper.

Keywords: Shadow Education, Educational Equality, Compulsory Education

Introduction

In recent years, shadow education has become a global phenomenon, from Britain, United States, Africa, Middle East to Australia. In different countries and different cultural backgrounds, various shadow education institutions have appeared, especially in Asian countries, such as China, Japan, South Korea, Thailand, Singapore, etc. Students' enthusiasm for shadow education is high in Asian countries. Lu (2021) mentioned that according to the Program for International Student Assessment (PISA) survey, in 2003, 15-year-old students participated in shadow education in the United States, Spain, Thailand, and New Zealand, the proportions rate are 11.7%, 32.3%, 19.9% and 14.5%. Respectively, in 2012, the participation rate rose to 17%, 41.6%, 50.3%, and 20.6%. Yang Po mentioned that in 2015, the percentage of students participating in shadow education in various countries (regions) was 63.9%. More than 70% of the countries included Bulgaria, Greece, Thailand, and the United Kingdom.

In China, the student participation rate of shadow education is as high as 70% in developed cities like Beijing and Shanghai (Ju & Shi, 2018). Xue and Fang (2019) found that students with the background of higher socioeconomic status, higher school quality, and better academic performance are more likely to participate in shadow education. The participation rate of students in shadow

education is positively correlated with the scale of urban development. However, with the rapid development of shadow education, on July 24, 2021, The Bulletin of the State Council of the People's Republic of China issued the "Opinions on Reducing the Academic Burden of Students in Compulsory Education and the Burden of Shadow Education". On the one hand, the reduction policy adjusts the academic burden of students, and the most important other is the determination to govern the shadow education of disciplines. To build a good system in education, the Chinese government has suspended shadow education in disciplines that the policy has sparked discussion from a variety of groups.

1.Shadow Education

This definition was first proposed by de Silva (1991), used to describe the phenomenon of private supplementary tutoring. In 1992, Stevenson defined shadow education, as a series of educational activities that take place outside of formal schools, to promote student learning in mainstream schools. About 'shadow' this metaphor is in Malaysia (Marimuthu et al., 1991), Singapore (George, 1992), and Japan (Stevenson & Baker, 1992). In 1999, a book of shadow education mentioned that: Private tutoring and its implications for planners, mainly focuses on the imitateness of shadow education, while framing mainstream schooling as the source of light. Some scholars believe that shadow education is 'supplementary education' (Aurini & Davies, 2013; Bray, 2017; Wiseman, 2013), 'private tutoring centers' (Tansel & Biran, 2006) and 'cram schools' (Liu, 2012), Other terms have been used in various Asian countries, in South Korea (Kim, 2016) say '*hakwon* and *sagyoyuk*,' and '*buxiban*' in China (Kuan, 2011; Liu 2012).

Shadow education was defined as targeting primary and secondary school students. The teaching content was based on the cultural courses of mainstream schools. The purpose was to "train the best and make up for the poor" to improve students' test scores. The teaching methods include private, extracurricular tutoring classes, online courses, etc. This is a kind of paid activity related to tutoring. In China, the concept of shadow education in this article refers to cultural courses, such as mathematics, Chinese, and English. It does not include students' extracurricular classes that participate in personal hobbies, such as art, dance, and calligraphy; in recent years, shadow education has developed rapidly in our country, especially among students in the compulsory education stage.

1.1 Shadow Education's Three Development Stages

In China, shadow education started relatively late, but develops quickly. Shadow education has three stages of the process. Primary stage (1978-1998), period of transition (1999-2005), stages of development (2006-2020), the standard and governance stage of shadow education (since 2021).

In the primary stage, shadow education is mainly based on supplementary lessons in mainstream schools and private family education. During this period, the lack of government finances made it very difficult to match individual and family requirements for access to all levels and types of

education to meet certain spiritual and material needs. To solve this problem by government departments, much private education began to emerge. Private education includes tutoring. At this time, extracurricular tutoring is also restricted by market scale, social philosophy, and related policies. With the restoration of the college entrance examination system and the elite school system of primary and secondary schools, the competition for admission to higher education has become fiercer, which directly promoted the development of shadow education in this period. Tuition has changed from free to paid, and then to higher fees. In the future, this trend of development has made the burden of schoolwork in primary and secondary schools continue to increase, the government had to put forward a series of policies to reduce the burden. In addition, parents are actively hiring tutors to give their children tutors for their children's high education and a good career. In short, the most widespread form of shadow education in this period was in-school tutoring and the hiring of tutors. Tutors included public school teachers, retired teachers, part-time college students, etc. The popular organizational form was tutoring companies or tutoring agencies (Wang, 2021).

Period of transition (1999-2005). Before 2000, the phenomenon of paid supplementary lessons in mainstream schools continued to increase, which was closely related to the development of education during this period and the government's lack of supervision policies. The reason for this phenomenon is that, on the one hand, the national finance cannot effectively guarantee the salary of teachers; on the other hand, the government has not formulated corresponding regulatory policies due to the influence of the concept of marketization and industrialization of education (Liu, Ding & Xue, 2016).

Pan and Wang (2020) believed that during this period, in addition to the normal supplementary tuition fees, many schools also charged indiscriminately, borrowing various names, which aroused strong dissatisfaction and criticism from the society, and many parents complained to the education administrative department about the school's supplementary tuition and educational unreasonable fees. At the same time, the increasingly prolonged time for supplementary lessons has also led to more and more heavy burdens on students' schoolwork, and the test-oriented orientation of education has become more prominent. Under this circumstance, it is imperative for the government to issue relevant policies to govern in-school make-up classes. In 1999, the "Decision" bill was promulgated to completely prohibit supplementary classes in schools. Especially the behavior of paid tuition. This period marked the end of the primary stage of school tuition classes and shadow education based on private teachers. However, tuition institutions began to rise. Later, the government prohibited the in-service teachers at schools from participating in paid supplementary lessons and opening supplementary classes. However, the student's tuition needs still exist. Therefore, some companies with insights into business opportunities and consumer demand have begun to invest in private tuition institutions, recruiting students for supplementary lessons on the one hand, and teachers on the other. Currently, the teachers are mainly college students, and private tutoring agencies introduce the recruited tutors to the parents of the students to earn intermediary fees. However, compared with teachers, college students lack

classroom teaching experience, do not grasp the test sites in place, and the effect of supplementary lessons is not apparent. Therefore, teachers began to appear on the market again. In short, when capital flows into the field of education, it promotes the intensification of educational competition and the emergence of educational equity.

Since 2006, the development of shadow education has gradually matured, various types of educational institutions emerged, such as the Institute of Learning and thinking, New Oriental, etc., these institutions were originally developed by the founder from the beginning of the tutor. In this period, large and small educational institutions also pursue the pace of development of the times and constantly update and develop themselves. In addition to offline educational institutions, online education is also slowly growing. The national medium-and long-term education reform and development program (2010-2020), promulgated in 2010, calls for "Standardizing all kinds of social tutorial institutions and auxiliary markets." Since then, shadow education has gradually entered a period of normative development.

1.2 The Standard and Governance Stage of Shadow Education

Due to the influx of a large amount of capital into the training industry in the compulsory education stage in recent years, the "burning money" war has been launched; advertisements are overwhelming, explosive marketing is carried out to the whole society, all kinds of sales anxiety-like excessive publicity, violate the public welfare attribute and destroy normal ecology of education (Sou, 2021). China promulgated a Double Reduction Policy in July 2021. "Double Reduction" policy focus on reducing the homework burden of students in compulsory education and shadow education burdens, promoting the high-quality development of compulsory education.

On July 24, 2021, the General Office of the Central Committee of the Communist Party of China and the General Office of the State Council issued the "Opinions on Further Reducing the Burden of Compulsory Education Students' Homework and Off-campus Training" in the fourth item of shadow education. The policy adheres to strict governance and comprehensively regulates shadow education behavior. The following three regulations: First, insist on strict examination and approval of shadow institutions. All localities no longer approve new subject-based off-campus training institutions for students in the compulsory education stage. Existing subject-based training institutions are uniformly registered as non-profit institutions. The online discipline training institutions that were originally filed are changed to a system of examination and approval. All provinces (autonomous regions and municipalities directly under the Central Government) shall conduct a comprehensive investigation on the online discipline training institutions that have been filed and re-approve the approval procedures according to the standards. If the approval is not passed, the original registration and Internet information service business license (ICP) shall be cancelled. For non-disciplinary training institutions, localities should distinguish sports, culture and art, science, and technology, etc., clarify the

corresponding competent departments, formulate standards by category, and strictly review and approve. Strictly investigate and punish training institutions that do not have the corresponding qualifications and conduct shadow education in multiple locations without approval. Disciplinary training institutions are not allowed to be listed for financing, and capitalized operations are strictly prohibited; listed companies may not invest in discipline training institutions through stock market financing, and may not purchase the assets of discipline training institutions by issuing shares or paying cash; foreign capital is not allowed to control or participate in academic training institutions through mergers and acquisitions, entrusted operations, franchise chains, and the use of variable interest entities. Those who have violated regulations shall be aligned and rectified.

Second, standardize training service behavior. Establish training content filing and supervision systems and formulate and promulgate training materials management methods for off-campus training institutions. Exceeding standards and advance training are strictly prohibited, non-disciplinary training institutions are prohibited from engaging in subject training, and overseas education courses are strictly prohibited. Resolutely investigate and deal with outstanding issues such as out-of-scope training, uneven training quality, vulgar content, illegal content, and piracy in accordance with laws and regulations. Strictly implement the relevant provisions of the Juvenile Protection Law, and off-campus training institutions shall not occupy national statutory holidays, rest days, winter, and summer vacations to organize subject training. Training institutions must not hire mainstream teachers with high salaries to teach in institutions; personnel engaged in subject training must have corresponding teacher qualifications, and the teacher qualification information must be announced in prominent locations on the training institution's premises and websites; parents and students' personal information must not be leaked.

Thirdly, strengthen regular operation supervision. Strictly control the excessive influx of capital into shadow education institutions. The financing and fees of training institutions should be mainly used for training business operations. Unfair competition with fictitious original prices, false discounts, false propaganda, etc. Online training should pay attention to protecting the eyesight of students. Each lesson should be no more than 30 minutes, the interval between courses should be no less than 10 minutes, and the training end time should be no later than 21 o'clock. Actively explore the use of artificial intelligence technology to reasonably control the continuous online training time of students. Online training institutions must not provide and disseminate unhealthy learning methods such as "photographic search for questions" that inert students' thinking ability, affect students' independent thinking, and violate the laws of education and teaching.

In short, the government attaches great importance to the standardized governance of shadow education, which is the most severe one in Chinese history. The new "Double Reduction Policy" will not only strictly regulate shadow educational institutions, but also consider the requirements of most

parents for their children to study for exams. After the policy of “Double reduction”, whether the education equity can be achieved still needs to pass the time consideration.

2. Shadow Education Under the Concept of Educational Equity

In ancient China, the educator Confucius founded private schools to recruit students regardless of whether they were rich or poor. At the same time, they chose teaching methods according to the students' circumstances and taught students under their aptitude. Plato in the west advocated equal education and believed that people with different talents should receive education and training that suits their abilities and give full play to their abilities. Aristotle divided equality into "equal numbers" and "equal proportions." "Equality in numbers" offers everyone the same number of resources and treats them equally; "Equality in proportion" allocates resources in an appropriate proportion based on value and talent, both of which are a manifestation of fairness (Miao, 2003). The American philosopher John Rawls put forward the concept of justice in A Theory of Justice, claiming that all social values, wealth, opportunities, etc., must be distributed equally, unless such inequality is in line with individual interests.

The right to education is also a fundamental human right stipulated in our country's Constitution. The state has the obligation and responsibility to protect everyone's right to education. At the same time, the ninth and eighteenth items of China's "Education Law" clarify the status of the right to education as a basic human right, and require the state, society, schools and other educational institutions to take measures to protect citizens' right to education. It also clarifies the subject scope of the right to education, namely "everyone" and "all citizens", indicating the universality of the subjects of the right to education, not only the subjects of ordinary rights, but also the vulnerable groups, and they should all enjoy equal acceptance. ~~The right to education.~~ Liu mentioned in 2018, the country needs to take some preferential measures and assistance to enable disadvantaged groups to enjoy the same right to education as ordinary people. This is an essential task that China and all countries need to complete.

Shadow education has existed for a long time. Still, it highlights the rationality of shadow education and has the soil for survival in society, on the other hand, one must pay attention to the negative impact it brings. In the article, the author analyzes and understands the advantages and disadvantages of shadow education based on educational fairness, and summarizes the education of students, parents, schools, and society.

3. Two-side Effects of Shadow Education in China

3.1 The Advantages of Shadow Education

Shadow education is like a mirror, which can help improve the deficiencies of the mainstream education system (Xiao& Zhang,2014). Compulsory education has certain shortcomings, especially in

satisfying the diverse and individual needs of students, while the shadow education system can help mainstream education in terms of structure and function. The following analyzes the advantages of shadow education from students, parents, schools, and society.

First, Perspective of students. Shadow education helps students increase their attitudes about learning in schools, such as time management, mnemonics, and note-taking (Min, 2016). At the same time, shadow education helps students increase their grades in school subjects: the various forms of shadow education, such as extracurricular tutoring, reflect the characteristics of "teach students according to their aptitude", which can ensure the learning effect of students. For example, for students with learning difficulties that are not understood in mainstream schools, shadow education can once again help them improve their understanding and grades, thereby building confidence (Wang, Chen & Zhu, 2012). Cameron (2017) and Mori (2015), in qualitative analysis of data from fieldwork revealed that there is positive relation between shadow education and student achievement. Hu, Fan & Ding (2017) research found that mathematics tutoring in shadow education has a significant positive effect on students' mathematics performance. Participating in mathematics tutoring can reduce the performance difference caused by the family's economic and social status, thereby promoting the equal effect of education.

Fang and Xue (2014) pointed out that shadow education can significantly improve students' academic performance by analyzing the 2012 data of the "Chinese Family Tracking Survey" conducted by the China Social Science Survey Center (ISSS) of Peking University. Students with good grades can improve their self-efficacy through shadow education. Students with poor grades can use shadow education to strengthen their cognition of mainstream school knowledge, thereby improving academic performance (Yang & Bao, 2021).

Xu (2020) constructed a mediating effect model based on the perspective of the heterogeneity of shadow education participation in time selection and examined the possible paths of shadow education's impact on students' academic performance and found that shadow education can improve students' academic performance, and this effect is excellent for students. Is more evident in a group of people.

Second, perspective of parents. In a survey of urban students, Zeng, Ding and Shen in 2010 found that the parents of children from private enterprises and workers' families have a low level of education and are unable to guide their children's learning. This type of child may participate in shadow education to make up for the lack of family education. Parents' educational level is related to their children's participation in extracurricular tutoring. Li and Xue (2019) believed that the higher the education level of parents, the higher the probability of their children participating in shadow education. In our society, many human capital investments will be made to children. Parents invest in education to give their children the possibility of obtaining higher diploma. Their children can gain an advantage in

the future competition for high professional status, which provides potential consumers and development possibilities for shadow education.

Thirdly, from the school's point of view. In shadow education, teachers can provide students with personalized learning system

Kim and Lv (2016) pointed that shadow education is conducive to the teaching of students according to different cognitive levels, learning ability and their own quality, teachers choose to learn methods suitable for each student's characteristics to have targeted teaching, play to the strengths of students, make up for the lack of students, stimulate students' interest in learning, establish students' confidence to learn, make up for the lack of mainstream school education. In terms of class size, shadow education is more one to one or one to many children discipline, which are much smaller than mainstream schools. In the classroom environment of shadow education, the relationship between teachers and students is relatively democratic. Most of them can focus on students and pay attention to students' practical problems. Teachers can be effective in enabling students to achieve optimal development.

Finally, from a societal perspective, Xiao & Zhang (2014), shadow education provides employment opportunities and alleviates the difficult employment situation. Since the large-scale expansion of Chinese colleges and universities in the late 1990s, the number of college graduates has increased substantially. The pressure and difficulty of employment have also increased significantly. As the education authority's policy prohibits "mainstream teachers from working part-time in shadow education institutions", therefore, the current implementing agencies of shadow education have objectively absorbed some people who need employment to participate, no matter what teachers or administrative position, both provide many jobs for college graduates and the unemployed. Because the salary of shadow education institutions is relatively good, it has also attracted many capable talents to seek positions in shadow education institutions. To a certain extent, it has alleviated the severe social employment pressure in my country in recent years.

3.2 The Disadvantages of Shadow Education

First, from the perspective of students. Increase students' study burden and distract students from studying. Sun and Tang (2019) found that extracurricular tutoring did not quickly improve academic performance, and even reduced the overall performance of junior high school students. For vulnerable groups, shadow education brings more psychological comfort. Because students have to go back and forth between learning and mainstream education and shadow education, students tend to feel tired. Due to the heavy schedule, there will be students falling asleep in school classrooms, which will make the education process ineffective (Bray, 2012). Students participating in shadow education, especially some compulsory subjects of mainstream education, such as mathematics, Chinese, and

English courses, will increase students' learning burden, cause learning fatigue, and make them lose their interest in learning more quickly. In the short term, some studies have shown that devoting to shadow education is effective in improving current performance, but in the long run, excessive learning burdens will make students more evade mainstream school education.

Second, from the perspective of parents. Shadow education increases family expenses. The investigation team of the National Bureau of Statistics conducted a survey of more than 200 parents of primary and secondary school students in Zhongshan in 2019 found that more than 70% of primary and secondary school students participated in more than two extracurricular training. More than 80% of families spent more than RMB 500 on the extracurricular training for students every month. Although for wealthy families, shadow education is chosen to pursue high-quality schools, price is not the primary factor they consider. Shadow education belongs to the middle and high consumption area, and it is still difficult for poor families to afford it (Choi & Park, 2016). Overall, for one thing, it reflects parents' anxiety that their children should be more successful. For another thing, also highlights the phenomenon of uneven education.

Third, from the school's point of view. The education quality of shadow education cannot be guaranteed. In the school education system, college students and even high school students can provide extracurricular tutoring, which means that the tutors in shadow education may be younger and less experienced than mainstream teachers; there are almost no requirements for training and professional qualifications (Bray & Liao, 2012). Teachers in mainstream schools provide part-time tutoring outside the school, which distracts the energy of education and teaching and indirectly causes educational unfairness. Although the Chinese education department prohibits the paid supplementary lessons of the mainstream school teachers, there are still some teachers who are engaged in paid tutoring work for economic benefits and work as part-time teachers in tutoring institutions, after all, the energy of teachers is limited, especially for our country's primary and secondary school teachers, whose teaching pressure is weighty, under this circumstance, part-time tutoring disperses a lot of their teaching energy, which leads to the inability to make full use of educational resources and indirectly leads to educational unfairness. For example, some mainstream teachers set up tutoring classes for their students. To increase their financial benefits, they deliberately talk less in mainstream school classrooms, and even value only those students who participate in their tutoring classes (Liang, 2015). These are not conducive to the development of teachers and students, and affect the teachers' work, the development of the teaching team, they have a negative impact, which also affects the quality of school education.

Finally, from a societal perspective. The main weakness is expanded the imbalance of education and increased the division of social classes. The resources of shadow education are more acquired by students with wealthier families. Research shows: "Under the control of other factors, family socioeconomic status (expressed in terms of income and mother's education level) has a positive impact on the rate of change of educational tuition expenditures. The higher the socioeconomic status of the

family, the greater the growth of shadow education (Lei, 2005). One side, shadow education destroys people's opportunities to receive equal education. On other hand, it also widens the education gap between urban and rural areas. In China, the number of rural students far exceeds that of the cities, but the rural education funding is extremely short, and the average level is far lower than that of the cities. In terms of education quality, the "polarization" between urban and rural areas is serious. Basic education in cities is developed, and the level of education is high. However, in rural areas, educational facilities are backward, school conditions are poor, and teachers' wages are seriously delayed. Compared with rural areas, cities have advantages in policy, economy, and environment. Therefore, cities are significantly better than rural areas in terms of hardware and software, and capital and talents continue to flow to cities. Different cultural environments in urban and rural areas, differences in teacher quality, differences in teaching quality, etc., there is a big gap between urban and rural students in my country in sharing public educational resources. In this respect, shadow education expands the unfairness of education (Huang, 2011).

4. The Countermeasures of Shadow Education

The first, understand the nature of shadow education, and deal with this problem from multiple angles. The nature of the shadow education system can show and convey a lot of information about social stratification and the driving factors of social reproduction to policymakers. All governments claim to reduce social inequality and help disadvantaged groups. However, if left to the domination of market forces, the shadow education system will maintain and exacerbate inequality. The degree to which governments of various countries attach importance to this issue is whether they care about social inequality. The government should correctly understand the pros and cons of shadow education and should start with the mainstream school system wisely. This means that the government needs to provide sufficient financial and manpower to enable the school system to fully meet the needs of all students, to prevent some of them from seeking extracurricular tutoring because their needs cannot be met (Bray, 2017).

Policies and experiences in some countries and regions are as effective as uncertain elsewhere. Therefore, policymakers must pay attention to the actual situation. Like mainstream education, many characteristics of shadow education also reflect the unique historical and cultural background of each country and region (Schweisfurth, 2019). As Sir Michael Sadler said in England in the 20th century, we cannot copy it in every education system in the world. Like a child wandering around in the garden, he picked a flower from a bush, picked some leaves from elsewhere, and went home and planted them in the soil, thinking that he could harvest a living plant.

In addition, as far as China's education situation is concerned, to maintain educational equity, the distribution of educational resources should be balanced, and education compensation services for low-income families should be provided. To reduce the negative impact of the development of shadow

education, it is fundamentally necessary to coordinate urban and rural development and reduce the gap between the rich and the needy. First, the government can allocate funds to establish a special fund to provide education compensation for poor families with relatively backward socioeconomics. Opportunities to help children from low-income families participate in extracurricular tutoring. Second, it is possible to form educational general welfare organizations, carry out public welfare activities, and provide general welfare tutoring activities and assistance projects for urban poor families and rural families. Third, it is recommended that teachers majoring in schools use weekends and holidays to go to communities or poor rural areas to carry out educational activities to accumulate college students' social practical experience, while also reflecting the public welfare and social care of education.

Conclusion

In Conclusion, shadow education is the epitome of the development of mainstream school education. Under the double reduction policy that China has just promulgated, while the policy regulates the shadow education system, it must also further reflect on the existing mainstream education system and improve the mainstream education system. And reform the existing education evaluation mechanism. Shadow education reflects the test-oriented education system of our country's education which is oriented by examinations and scores. Exam-oriented education confines students in the cage of scores while ignoring the qualities and abilities that are really needed for social development. The students trained by this system lack competitiveness. Only by putting the reform of the existing education evaluation mechanism in the first place and changing the status quo of summative evaluation can we balance the contradiction between education opportunities and students' competition for high-quality resources and promote the development of mainstream education and shadow education from the root to jointly promote the development of education equity and the improvement of education quality.

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A STUDY OF THE RELATIONSHIP BETWEEN TEACHERS' PERCEPTIONS OF THEIR JOB SATISFACTION AND SCHOOL ORGANIZATIONAL CULTURE AT THE WISDOM HILL PRIVATE SCHOOL IN NAY PYI TAW, MYANMAR

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Abstract: The purpose of this study was to determine the relationship between teachers' perceptions of their job satisfaction and school organizational culture at Wisdom Hill private schools in Nay Pyi Taw, Myanmar. This study had three objectives: (1) To identify the teachers' perceptions of their job satisfaction, (2) To identify the teachers' perceptions of school organizational culture, and (3) To determine the significant relationship between the teachers' perceptions of job satisfaction and school organizational culture at the selected school. The participants were 95 full-time teachers from Wisdom Hill schools during the academic year 2020-2021. Two previously developed instruments were adapted and used to collect data: Teacher's Job Satisfaction Questionnaire (TJSQ) by Lester (1982) and the Organizational Culture Survey (OCS) by Saravanan (2013). The collected data was analyzed by descriptive statistics, (frequency and percentage, means and standard deviation) and the Pearson Product Moment Correction Coefficient. Results found that the mean of teachers' perceptions of their Job Satisfaction was moderate (3.20) and Organizational Culture was also moderate (3.86). The relationship between the two variables was moderately significant: $r(93) = .97, p = .000$. The research hypothesis (H1) was confirmed.

Keywords: Job Satisfaction, Organizational Culture, Education

Introduction

Organizational culture has been shaped by the force of the changing global world and employee's satisfaction and each member of the organization. In the educational context, schools are regarded as organizations due to its features of operation and inclusion of different stakeholders who take responsibility for respective roles to accomplish the common goal of a scholarly society (Owings & Kaplan, 2013). School organizational culture is recognized as a significant agent of school achievement driven by all school members. The concept of school culture should form as a resource

for supporting civilians in their valuation by fostering an instrument for classification, simplification, and creation of the human state (Lumby & Foskett, 2011).

Due to COVID-19 pandemic many school organizations have had to redesign their organizational structure. This has resulted in such factors as the change in accepted teaching methods and the reduction in the number of employees. Restructuring processes is not something that only happens in a pandemic. Indeed, organizational restructuring to improve effectiveness and efficiency is a normal process in the development of organizations.

Conversely, although the restructuring processes tend to leave many workers unemployed, it is ironic that management seems to be paying more attention to recruiting and retaining qualified people (Park, 2001). School management recognizes that effective teaching personnel are essential to provide school organizations with a global, sustainable, competitive advantage.

School organizations need to foster positive organizational culture through the essential characteristics of teachers' job satisfaction to achieve organizational visions, missions, goals, and student learning outcomes.

According to Herzberg, one of the pioneers of job satisfaction research, satisfaction is closely related to motivation (Herzberg & Snyderman, 1959). Herzberg argued that the major factors affecting job satisfaction included achievement, recognition, the work itself, responsibility, and advancement. The primary sources of dissatisfaction were company policies, administration, technical supervision, salary, interpersonal relations with supervisors and working conditions. In related seminal research conducted by Maslow, the development of the hierarchy of basic human needs that addressed physiological requirements, safety, social, esteem, and self-actualization has been shown to have a connection with the essential factors affecting job satisfaction. When a condition is satisfied in the hierarchy, it no longer motivates, and the next higher need takes its place (Maslow, 1954).

In a developing country such as Myanmar, education can be seen as a driving force for the development of the country. Therefore, recognizing the importance of teacher satisfaction is vital in the development and reform of education in Myanmar. All teachers need to work with and communicate with their administrators and develop effective ways of teaching in the classroom. These responsibilities are vital for them to effectively perform their jobs. In Myanmar, the National Education Strategic Plan of the Ministry of Education (MoE) changes the curriculum in stages every year (Thiha, 2017). This is seen as a necessity to keep the educational system current. However, the consequences of these annual reforms are that the school model and internal structures need to be constantly redesigned to implement the reforms effectively. These constant changes add an additional work burden to teachers who are already struggling with their responsibilities and thus, influence their job satisfaction (Saeidipouret et al., 2013).

Wisdom Hill is a group of schools. It established the first private primary school in 2015 and added new branches of the school every year until 2018. The management team of the school recruits'

large numbers of new teachers every year. As a large school organization, Wisdom Hill operates with new teachers as well as staff. Therefore, it is essential that the schools pay attention to the job satisfaction of its teaching staff and other personnel. If the management team neglects the teachers' job satisfaction, teachers' performance and consequently, the organizational culture will not be positive. This can also affect student learning outcomes. Thus, the management team has a duty to make sure that teachers' job satisfaction is ensured to encourage positive organizational environment and successful teacher efficiency. As student achievement reflects the school's reputation, taking care of job satisfaction and encouraging a positive organizational culture will not only affect teaching staff, it will influence the goals and objectives, including the financial feasibility, of the schools.

Research Objectives

The main purpose of this research was to study the relationship between teachers' perceptions of their job satisfaction and their perceptions of the school's organizational cultures at Wisdom Hill private schools in Nay Pyi Taw, Myanmar.

The following are the objectives of this study:

1. To identify the teachers' perceptions of their job satisfaction in Wisdom Hill private schools.
2. To identify the teachers' perceptions of the organizational culture at Wisdom Hill private schools.
3. To determine a significant relationship between the teachers' perceptions of their job satisfaction and school organizational culture in Wisdom Hill private schools, Nay Pyi Taw, Myanmar.

Literature Review

Theoretical Framework

The purpose of this research was to study teachers' job satisfaction and their perceptions of organizational culture at Wisdom Hill private schools in Nay Pyi Taw, Myanmar. For this study, two theories formed the theoretical basis: (1) Motivation-hygiene Theory (Hertzberg, 1959) to examine the job satisfaction and (2) Organizational Culture Theory Saravanan (2013).

Job Satisfaction

Job satisfaction is a work attitude that takes feelings, beliefs, and behavior into account. Job satisfaction is the degree to which one fulfils one's essential needs of health, safety, nutrition, affiliation, esteem, work, or work. It is described as satisfaction with work as positive or satisfactory feelings about work and the work environments (Furnham 1997). Lower satisfaction, which is especially crucial for the teaching profession, is thought to influence teacher commitment, morality, and turnover. When

measuring teacher satisfaction at school, factors that are typically examined include pay, encouragement, appreciation, teacher-to-school relationships, and teaching authority.

Job satisfaction is "pleasure or good emotional status as a result of the evaluation of work or work experiences" (Locke 1976). The relationship between employees' satisfaction and organization culture has long been described by various studies in the field of education. Job satisfaction is one of the factors used to establish a strong organizational structure and can use as behavioural or organizational factors (Seashore and Taber 1975).

Herzberg's Two-Factor Theory

In seminal research conducted in 1959, Hertzberg suggested that jobs satisfaction has two factors that lead to satisfaction and dissatisfaction. He found that job satisfaction had two dimensions: motivation (recognition, success, growth, and advancement) and hygiene (administration, working conditions, relationships between people, and salary). Herzberg also found that the absence of motivator factors did not necessarily lead to dissatisfaction with the job. Hygiene factors produced pleasant working conditions but did not explicitly increase job satisfaction. Herzberg's Two-factor Theory has also been used to examine teachers' attitudes towards their careers to determine whether certain factors contribute to job satisfaction or dissatisfaction.

Motivators (Intrinsic)	Hygiene (Extrinsic)
Growth	Salary
Advancement	Supervision
Responsibilities	Work Environment
Promotion	Administrative Policies
Recognition	Interpersonal Relations
Work Itself	Working Condition

Figure 1: Herzberg's Theory of Maslow's Hierarchy of Needs Theory

A concept related to job satisfaction is need satisfaction. If a person's needs are satisfied, it can be inferred that this would positively affect their job satisfaction. The Hierarchy of Needs Theory conceived by Maslow in 1954 is also a seminal piece of research that has been thoroughly studied in the academic literature. Maslow's Hierarchy of Needs is a psychological based theory that explains human motivation. The theory posits that people satisfy their needs in a hierarchical structure. This order begins with the most basic needs and proceeds to more highly advanced needs. According to this theory, the goal is to get to the fifth level: self-actualization. A person must meet each level of motivation before moving on to the next level. (Maslow's 1970). Maslow categorized five levels of

needs ranging from low priority to high priority. The development of the Hierarchy of Needs theory stated that individuals progress through a hierarchy of requirements to reach desired satisfaction and fulfilment levels. The needs are composed of five categories. Lower-level needs include physiological needs, security needs, the need for love and belonging, and higher-level needs, including self-esteem and others and self-actualization or achieving one's full potential (Maslow, 1970).

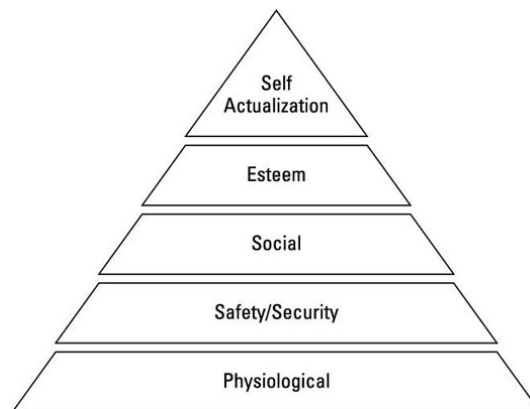


Figure 2: Maslow's Hierarchy of Needs Theory

It has been suggested that administrators should align institutional goals with the employees' needs (Lunenburg & Ornstein, 2004). Ignoring the needs that motivate an individual can have counterproductive consequences. The neglect of higher needs and the differences between lower and higher needs doom people to disappointment when wanting continues even after a need is gratified.

Organizational Culture Theory

Organizational culture is the collection of values, expectations and practices that is common to an organization. Positive organizational cultures promote good performance in the employees. Conversely, negative organizational cultures lead to a dysfunctional organization. (Saravanan 2013) defined four critical factors contributing to organizational culture: (a) Physical Factors, (b) Social Factors, (c) Organizational Commitment Factors, and (d) Cultural Factors.

Physical Factors

All organizations have a physical environment that significantly influences people's choices in how they use resources to communicate (Saravanan, 2013). Physical factors are significant elements of any organization as they affect people's choices considerably through its resources.

Social Factors

Social interaction significantly affects individual members' satisfaction because it makes it possible for members to be involved in the resolution, decision-making, and problem resolution. The organization's collaboration also contributes to a collaborative and collegial working environment (Saravanan 2013).

Organizational Commitment Factor

According to Saravanan (2013) organizational commitment can be observed as members' psychological attachment to the organization. Therefore, organizational responsibilities play a crucial role in deciding whether a member retains the organization and participates and works passionately towards organizational goals (Saravanan, 2013).

Cultural Factors

The culture of an organization dramatically impacts its abundant decisions and engagements. Culture refers to values, beliefs, and customs that exist in a society" (Schmitz, 2012). (Saravanan 2013) claimed that the cultural factor is the organization's basic philosophies; values, outlooks, and beliefs lead to how its employees think, feel, and act most of the time intuitively.

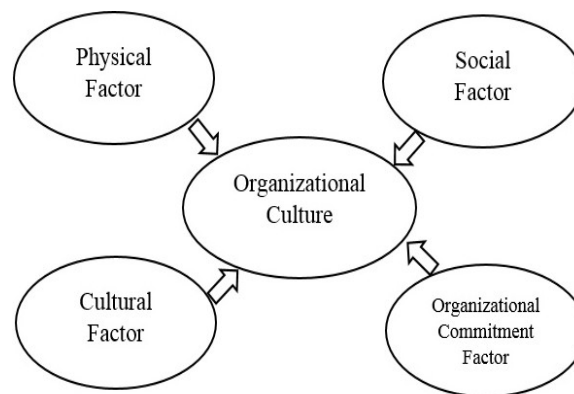


Figure 3: Organizational Culture Factors

Conceptual Framework

Figure 4 below shows the conceptual framework of this study. The conceptual framework depicts the hypothesized relationship between teachers' perceptions of their job satisfaction and school organizational culture.

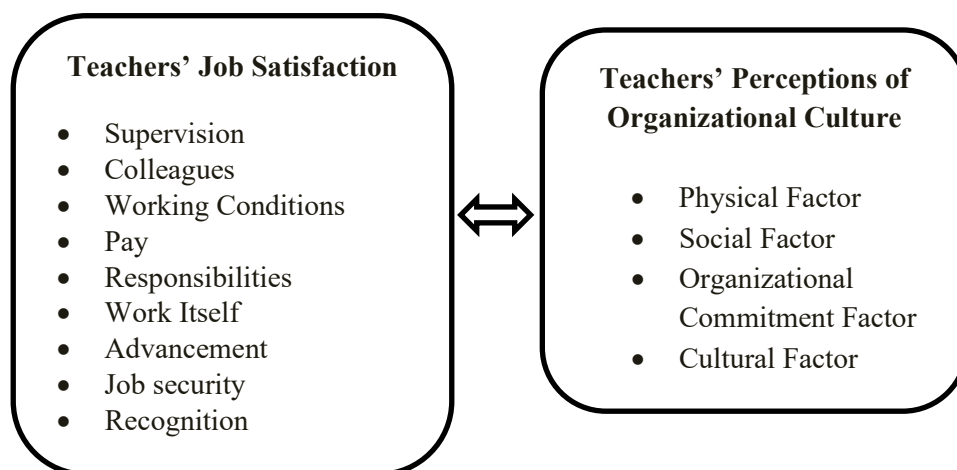


Figure 4: Conceptual Framework of this study

Methodology

The research was designed as a quantitative relationship study that used the Teacher Job Satisfaction Questionnaire (TJSQ) and Organizational Culture Survey Questionnaire (OCSQ). The research instrument was comprised of three parts. The first part of the instrument included demographic questions related to *Age, Grade Level, Educational Qualification and Years of Teaching Experience* of the respondents.

The second part of the instrument was the Teachers Job Satisfaction Questionnaire (Lester, 1987). The third part contained the Organizational Culture Survey developed by Saravanan (2013). The study used descriptive statistics and correlation methods for data analysis, discussion and concluding.

Results

Objective One: To identify the teachers' perceptions of their job satisfaction in Wisdom Hill private schools.

The overall mean of the teachers' perceptions of their job satisfaction level was moderate (3.20). This was categorized by the Likert-type scale which categorized the results within the range of (2.51-3.50) according to the proposed interpretation.

Objective Two: To identify the teachers' perceptions of school organizational culture in Wisdom Hill private schools.

The total mean of teachers' perceptions towards organizational culture was 3.86, which was interpreted as moderate. Findings for the sub-categories of Physical Factors, Social Factors, Organizational Commitment Factors and Cultural Factors, ranged from moderate to high between 3.51 and 4.50.

Objective Three: To determine a significant relationship between the teachers' perceptions of their job satisfaction and school organizational culture in Wisdom Hill private schools, Nay Pyi Taw, Myanmar.

The Pearson Product Moment Correlation Coefficient was used to analyze the two variables. The relationship between the two variables was moderately significant: $r(93) = .97, p = .000$. Therefore, it was concluded that the findings revealed a significant relationship between the two variables because the significant value was smaller than 0.05. The research hypothesis was accepted.

Discussion

The school management should introduce award ceremonies annually to the teachers with outstanding performance. There should be an award for the teachers, who are present for all the working days, teachers who have done extra-curricular activities other than teaching, punctual, and exemplary in their lifestyle.

The researcher of the current study proposed that if these factors are altered by ensuring recognizing and rewarding teachers according to their performance and creativities and encouraging innovation in school, the teachers can be made to perform well with a higher level of participatory team at well-equipped school.

Conclusion

The researcher concluded the findings as there was a significant relationship between the two variables because the significant value was smaller than 0.05. Therefore, the researcher asserted that there was a moderately positive relationship between the two variables due to the correlation (r) value was $.962^{**}$. The current study researcher proposed that if teachers' job satisfaction improved, there would be a strong relationship between the two variables: Job Satisfaction and Organizational Culture. A positive school organizational culture would also encourage an individual teacher to model highly effective job satisfaction. Therefore, it could be considered that the two variables are two sides of the same coin. The higher teachers' job satisfaction is performed in the schools, the more positive culture the schools' harvest.

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A COMPARATIVE STUDY OF CHINESE AND AMERICAN PRIMARY EDUCATION BASED ON TEACHING PHILOSOPHY, TEACHER-STUDENT RELATIONSHIP AND LEARNING ENVIRONMENT

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Abstract: The paper is a synthesizing literature review, the author conducted related literature searching by tough key words and predominant words in the study field, based on background of the study, China and American they are two different representative educational systems around the World, by comparison in educational differences between the two nations, that can provide primary findings in the research field, and to suggest Chinese elementary schools what and how can adjust teaching and learning methods, learning environment as they can as possible. The paper wanted to acclaim comparative analysis in the research field, as well as employed the method of analysis in literature review, it not only was theoretical contributions, also was enhancement on research design in the related research field.

Keywords: Comparative Analysis, Teaching and Learning Methods, Learning Environment, China and American

Introduction

Primary education plays a very important role in student development, there are kinds of crucial knowledge and skills in nature and social sciences from the stage, even, key intellectual intelligences formed in this aged, such as, reading abilities, mathematic abilities, and so on (Kong, 2008). Then, based on intercultural backgrounds, the paper makes a comparative analysis of Chinese and American elementary school, to make major findings related differences between both countries, since China as the representative Eastern educational culture, the nation can alight several merit educational administration experiences from elementary school in US.

In terms of educational philosophy, teacher-student relationship, and teaching methods. By comparing their advantages and disadvantages, we can draw on each other's strengths to achieve the goal of common development, which can provide reference for China's primary education reform.

Only high-quality education can cultivate high-quality talents. Only high-quality people can meet the challenges in all aspects in the fast changing today (Du, 2012). Education is the foundation of a country (Sun, 1988). Then, this is a valuable experience that developed countries have gained through

years of practice, and it is also the general consensus of government officials, scholars and people around the world (Wang, 1994; Chen, 2020; Zhou, 2018).

With a rapid development of science and technology, how to change the old educational thought and teaching system and cultivate excellent talents to meet the needs of the society is a strategic and important task that governments, educational administrative institutions and the whole society must face (Xiang, 2019)

With the deepening of China's reform and opening up, China's education system, especially elementary school education, has been continuously reformed, improved and gradually matured. However, there are still big differences in educational concepts, teacher-student relationship and teaching methods compared with developed countries.

Scientifically absorbing and learning from the successful experience of American education reform will provide valuable enlightenment for the revitalization and development of Chinese education.

Overall, based on above mentioned, the author wanted to conduct a comparative analysis on differences between Chinese and American elementary school education. To find out what major existing differences both them, then, to suggest how to improve Chinese elementary school educational quality.

1. Comparisons between Chinese and American Primary Education

1.1 Teaching Philosophy

Teaching philosophy as important factor that teaching career development for all levels of teachers working in schooling level, since it can step teachers to think of their teaching values, teaching methodologies, and instructional leadership and so on (Zhu & Qin, 2020). However, several scholars revealed teaching philosophical factors may be significant relationship with teaching methods and instructional design, thus, in American and Chinese elementary school, these educational agencies requested qualified teachers should possess teaching qualification in their individual educational system, especially, teaching philosophy as a necessary course in teaching qualification training program in China (Tan & Zhang, 2019).

1.2 Innovation Philosophical Comparison

Innovation as a constant topic in educational field, it was obviously seen a type of educational performance around the World (Lu, 2020), then, innovation has different understanding between Chinese primary education and American primary education, in China, elementary school stressed their students to upgrade their conceptions of knowledge, rather than, in US, their elementary school inclined to equip innovative thinking to primary students (Kong, 2008). Since that, the author synthesized related

literatures and made a basic comparative analysis in innovation philosophical factors between the both two.

When comparing the primary education of China and the United States, some people found that our strength is a good knowledge foundation, while their weakness is that they don't emphasize the knowledge foundation. Their strength is innovation ability, our weakness is not innovation ability. (Kong, 2008). The sharp contrast and harsh reality force us to think: why do we have good knowledge base but little innovation ability? They don't emphasize the knowledge base but they innovate a lot? (Zhou & Zhi, 2004). It is hard to say that American education does not pay attention to the foundation, only that it focuses on different knowledge bases, which are constantly changing with the development of times. The constant "change" of knowledge base does not mean that there is no knowledge base, perhaps the vitality of knowledge base lies in its constant change with the pace of The Times. In the past, if knowledge is the foundation, the foundation is knowledge, then in the new era background, training students' innovative spirit, innovative consciousness, innovative ability is more important than knowledge foundation. The United States saw and grasped this change in time, while China clung to the so-called classical knowledge.

In the United States, the original intention of education is to let children broaden their horizon, active thinking, cultivate curiosity, enhance thirst for knowledge, try every means to draw children's eyes from books to the vast ocean of knowledge (Hao & Ding, 2008). They don't have to memorize a lot of formulas and theorems, but they try to develop their independent thinking ability and teach them how to find knowledge, instead of solving problems for them completely.

American education does not rank students, but fully recognizes the achievements and efforts of children, protecting and stimulating their creativity and imagination. In contrast, in China teachers divide students into good and bad students. Students who do well and listen to their teachers are usually good students. Poor grades, do not love learning students are poor students (Zhou & Zhi, 2004). The result is good or bad to become a key standard that judges student good or bad. Although the voice of implementing quality-oriented education is increasing, what we often see in the field of education is still the traditional paternalistic education. We can also find the differences between Chinese and American educational ideas and methods: one is to let children learn in a relaxed and pleasant atmosphere; The other is to make students passively accept in a stressful and stressful environment.

In discussion, there were discussions as the follow:

Firstly, based on the literature review, it is obviously found, for innovation philosophy, there were significant differences between the both two countries, Chinese primary educational agencies overload to educate conceptual knowledge and take passive learning methods for primary students, rather than, American elementary school preferred to respect student personal traits and student attachments. However, there were individual merits and limitations, for example, Chinese elementary

school can provide necessary knowledge to students quickly, but it cannot sufficiently think of student need or not. furthermore, American elementary school can provide sufficient space to student personal development, however, they cannot control range of necessary knowledge possession to students.

Secondly, the both two countries there were different methods on educational assessment, for example, Chinese elementary school inclined formative assessment, rather than, American elementary school persisted to employ comprehensive assessment but summative assessment more.

Thirdly, learning methods, there were significant differences between the both two, Chinese elementary school preferred to employ passive learning methods, alternatively, American school focused on active learning methods.

In a word, there were differences with innovation philosophy in education between the both nation, Chinese primary overload innovative conceptual knowledge, in addition, American school preferred their students can critically think their cognitions and perception of knowledge. these differences make not same educational system and performance.

Thus, from the synthesizing literature review, the author considers there were not right and wrong, because there were culture differences and social values differences between the both two nations, the both nations can see advantages of educational philosophy, whether there is a possible, they learn from each other.

1.3 Teaching Methodologies

There were two popular teaching methodologies, student-centered and teacher-centered, these two types of teaching methodologies have different teaching philosophic factors. For student-centered teaching methodology, its philosophical factors that based on constructivist educational philosophy, it acclaimed student's perception and cognition as foundation of student-centered methods, because it believed students can know what they need and what they can judge. However, for teacher centered, it conveys teachers know knowledge and skills better than learners, it based on progressive and perceptive educational philosophical factors, in the teaching method, learners only follow teachers.

Education in the United States is educator-oriented, that is to say, student-centered (Zhang & Zong,2002). The effect of teachers' lecturing is judged by the effect of students' listening, while the content of teaching takes students' interests into account. Chinese education is educator-oriented, that is to say, teacher-centered. The effect of teachers' lectures is judged by the effect of peers' lectures, while the content of teaching is mainly based on whether teachers think it can be used for students. Teacher-centered is mainly influenced by traditional Chinese culture Confucianism, which emphasizes order and obedience. "Preach, impart knowledge and solve doubts" is the sage's beautiful teachings, often only stay in the "preach" and "impart knowledge", "solve doubts" is rarely paid attention to and implemented, which is a major difference between China's education and that of developed countries.

In discussion, from above all, Chinese elementary school insisted to lead teacher centered, alternatively, American elementary school would like to conduct student centered, whatever, both two teaching methods were not right or wrong, since they have its individual advantages or disadvantages, but, according to compare the synthesizing literature review, the author may consider if there has possibilities, Chinese elementary school can take student centered teaching method in several class, such as, non-necessary courses, arts courses, etc.

1.4 The Relationship between Teachers and Students

In the late 1960s and early 1970s, Hofstede (1980) proposed four hierarchical dimensions of cultural value through relevant investigation and research on employees of IBM in more than 50 countries and regions in the United States: It is Collectivism versus individualism, uncertainty avoidance, power distance, femineity versus masculinity. Hofstede defines power distance as "the acceptance degree of individuals in an organization to unequal distribution of power". Hofstede uses the power index (PDI) to measure the power distance of a country or region. In its findings, China's power distance index is 80 and the use's is 40 (Liu, 2005). Therefore, compared with the United States, China has a high-power distance, while the United States has a low power distance.

In China with high power distance, the status of teachers is sacrosanct. In elementary school, students must respect their teachers and obey what their teachers say, even beyond the status of their parents, both inside and outside the classroom. Chinese students are used to passively accepting the teacher's arrangement. Everything the teacher says is right and the students should follow it. In the United States, teachers and students have equal status. Students can freely express their own ideas and opinions in class, and they have their own ideas and thoughts. They do not need to mechanically follow the requirements of teachers, and they can also express their own opinions or debate with teachers about what they have doubts or think the teachers are wrong.

Innovation is the source and power of the progress of a country and a nation, and the innovation and critical spirit in the adolescent period is the most critical period for the progress of the whole country. Traditional Chinese culture values "the dignity of teachers and teachers". In such a cultural atmosphere, "students' criticality, individuality and uniqueness are gone, and they become humble, blindly obedient, timid and lack the consciousness and ability of taking risks and pioneering and original ideas". The United States with a low power distance gives more free space to children. "it does not advocate mentoring relationships and does not encourage blind obedience. We will tolerate students' rebellion and overthrow their teachers' doctrines. We will teach students in accordance with their aptitude, emphasize the use of hands and minds, oppose rigid practices, and encourage social practice.

In discussion, above all, the literature review already revealed Chinese schools have a higher power distance and a lower free spaces to students, rather than, American schools would like to provide a lower power distance and a higher free spaces to students, in comparison, a lower power distance and

a higher free spaces may assist with student intellectual and emotional intelligences development, thus, the author would like to suggest, Chinese schooling educators and administrators can consider provide a lower power distance and a higher spaces to students in extra curriculum activities or other fields they can.

1.5 The Learning Environment

Education research in China attaches great importance to the subjective qualitative, despise the objective and experimental research, the study is the main way of the "I think", "teaching should be" "teaching how to do it", is the value philosophy research methods, rather than scientific research methods, emphasizes the self-reflection, evaluating themselves, to know his own self, reflect on themselves and improve themselves in order to obtain the knowledge is the main way searching for truth, don't pay attention to the strict logical reasoning and argument. Americans believe that facts exist in the outside world, not in the mind. Therefore, American school education pays special attention to the external way of exploring objective things, that is, to understand the objective world through observation, experiment, measurement and other practical ways.

The methods used in American teaching are: group discussion method, mutual help method, group competition method, game method and cooperative learning method. Instead of telling students a result, teachers in the United States instruct them to master a method by carrying out various learning methods to motivate students to take the initiative to learn. Group learning is very common in elementary school classrooms and children are often seen talking and discussing with each other.

Chinese elementary school classes are usually like this: there are more than 60 students in the class, and the whole class is basically controlled by the teacher (Sun & Tian, 2014). Three quarters of the students in each class have no chance to speak, because the teacher has to catch up with the schedule and complete the teaching plan stipulated in the teaching syllabus. The teacher hurried through the class, the students listened in silence, and there was a lack of bilateral activity between teachers and students. A fourth-grade math class has access to a linear equation, to finish a lot of homework after class, and even some parents let the child do the Olympic mathematics competition such esoteric topic, make workbook while arts teacher asked the students to recite the text again and again, write new words, memorizing s history, traditionally believe that practice makes perfect is the most effective way to learn.

In the literature, the author found American schools preferred open mind and discussed learning environment, rather, Chinese schools inclined to structured learning environment, however, scholars indicated open mind and discussed learning environment may provide a good chance to enhance student comprehensive judgement and student performances in personal skills in the 21st century, thus, the author would like to advocate Chinese schools may adjust their learning environment to students with they can as possible as.

Conclusions

In conclusion, there were major findings in the research: a. there were differences in educational philosophy between the both nation, for example, the author found there were different understanding in innovation between the two nations, there were factors that influenced the differences included culture and traditional differences; b, because of education philosophical differences, the both nations have different teaching and learning methods, American schools preferred student centered teaching and learning methods, rather, Chinese schools preferred teacher centered teaching and learning methods; c. in learning environment, American schools welcomed open mind and discussed learning environment, however, Chinese schools like to follow structured learning environment. Furthermore, the author provided suggestions that if there are possibilities, Chinese schools may adjust teaching and learning methods, learning environment with they can as possible as, for example extra curriculum and activities.

America's unique cultural and educational traditions are closely related to its rapid development from a barren natural environment and backward cultural environment into the world's leading superpower in a short time. So, the United States in both cultural spirit and are worth China learning on education system, draw lessons from, but it is not as easy to distinguish the culture and education of China and the United States is good or bad, but in China varies from deep comparison and analysis on the advantages and disadvantages of education in China and the United States, from the domestic reality really realize the two complement each other, common development, and finally realizes the national culture and traditional advantage and prosperity.

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THE RELATIONSHIP BETWEEN BUILDING TRUST AND SCHOOL EFFECTIVENESS: AN ANALYSIS OF FOUR TYPES OF SCHOOL PARTICIPANTS

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Abstract: Improving school efficiency is a hot issue and a serious challenge faced by schools since the outbreak of the COVID-19 disease. The purpose of this paper is to discuss the relationship between building trust and school effectiveness. It is clearly proposed that building trust can improve school effectiveness. The author introduces four kinds of relationships between participants: teacher and teacher, teacher and student, teacher and school, school and society. The paper discusses from three aspects: information, power share, competency trust and moral trust. To build trust between participants, we can get support in cooperation and getting along with each other to improve school effectiveness.

Keywords: Trust, School Effectiveness, Relationship

Introduction

Almost everyone in today's society has to go to school for education. Studying at school is an important stage in learning knowledge, ethics, and developing personality and values. School education determines the level of personal socialization and lays the foundation for individuals to enter society. Schools and society are also closely linked. The school trains talents for society and provides a powerful impetus for the improvement of social productivity. Improve the overall quality of society in an all-around way and reduce the crime rate. Therefore, it is necessary to study how to establish trust in school-centered relationships with others. Trust is an important factor in social stability (Blau, 1986). The development of the school is also inseparable from the support of the trust. Organizational theorists agree that trust contributes to cooperation between individuals and groups. As an organization, the school relies on the trust of all parties to make progress. The trust between teachers can bring a positive working attitude. Trust may affect the working mentality of teachers. Trust building between teachers and students can improve students' achievement (Goddard, Tschannen-Moran, & Hoy, 2001). The disharmonious relationship between the teacher and the principal, colleague, or student may put pressure on the teacher's work status (Kyriacou, 2001; Troman, 2000). Trust can support all community members of the school to maintain the right character and code of conduct (Young, 1998, p. 18).

1. Trust Between Teachers

1.1 Information Share

Teachers often face common challenges and teaching tasks; they need to establish a good communication bridge to complete it. Collaboration between colleagues is conducive to the development of teaching and the achievements of students. Bryk and Schneider said, "if teachers don't trust their colleagues, the required collaborative efforts are unlikely to be initiated and sustained" (2002, p. 130).

Trust can be established through information sharing. It can also regulate the relationship between trust expectations and trust atmosphere. In contrast, a relationship of mistrust inhibits information sharing (John k. Butler, J R, 1999). Technology is rapidly changing education in the 21st century, and when you learn advanced teaching tools and methods, sharing teaching skills and knowledge with your colleagues could help build credibility.

1.2 Competence Trust

Teachers need to demonstrate professional skills in their work and continue to develop, which will help them gain the trust of their colleagues. Bryk and Schneider (2002) believe that trust among colleagues is gradually built up through personal competence and reliability. Teachers will identify colleagues when they complete collective effectiveness and judge whether colleagues can fulfil school expectations. Constantly identifying the ability of colleagues, the ability and reliability of colleagues will affect the collective effectiveness of teachers, and unify obligations and expectations for schools and the entire community (Bryk and Schneider, 2002).

1.3 Moral Trust

Good interpersonal relationships between teachers are conducive to the establishment of trust. In the organization, not talking about colleagues in private, the office gossip colleagues are harmful, on the contrary, the colleagues who chat with you will not build trust, because he is worried that you may also talk about him/her behind the scenes. Because there are no feelings of fear, hesitation, or doubt in a trusting relationship (TDK, 2014).

2. Trust Between Teachers and Students

Teachers and students are two important subjects in the school, and they are the practitioners who contribute to the operation and development of the school. Among them, the most frequent contact with students in school is the teacher, Teachers know their students best. And they also rely on students to achieve their teaching goals and practices (Forsyth, 2011). On the contrary, students rely on teachers

to grant their knowledge to improve their performance. Therefore, students and teachers need to build trust with each other to bring about a positive attitude and reduce uncertainty in the working and studying environment.

2.1 Share Power

Although teachers and students have interdependent relationships, teachers hold most of the rights and are in a higher position than students (Dobransky & Frymier, 2004). When students' education and practice are under the control of teachers, the trust between educators and students will be reduced (Goddard & Tschannen-Moran (2001); Ennis & McCauley (2002); Cook-Sather (2002). Such a teacher-student relationship is not conducive to the development of teaching. In such a relationship, teachers need to think about empathy, listen to students' opinions, share classroom rights, and teachers need to take a trusting position on students Cook-Sather (2002).

2.2 Teaching Competence Trust

The trust relationship between teachers and students can improve classroom management (Byrk & Schneider, 1996; Raider-Roth, 2005). Traditional classroom teaching teaches knowledge unilaterally for teachers, which is not conducive to the establishment of trust. More interaction with students, encouraging students to take the initiative to express their views, according to the learning situation of students to adjust the curriculum and teaching methods, is conducive to increasing the trust of teachers and students. In addition, teachers use variable teaching skills in the classroom and improve the classroom atmosphere through the use of science and technology, which is conducive to enhancing the trust of teachers and students.

2.3 Moral Trust

Teachers should give students patience and love when teaching in class. Teachers' attitudes towards students in the class will directly affect the trust between teachers and students (Murray and Pianta, 2007). They believe that when the classroom always has a positive atmosphere, the students' feedback is positive, which can promote the students' physical and mental development, the relationship between teachers and students, and the relationship of trust. Students who are trusted by teachers will be more active in teaching and more willing to express their ideas in class (Ennis & McCauley, 2002). The establishment of trust between teachers and teachers is conducive to bringing a good working environment, bringing a sense of security, and reducing work stress. The establishment of trust between teachers and students is conducive to the improvement of classroom atmosphere and student achievement. Teachers and schools are conducive to school reform, the formation of school moral behavior norms. Building trust between schools and society is conducive to building moral bonds, setting an example for society and creating a positive environment together.

3. Trust Between Teachers and School

The maintenance of various relationships is based on schools, and the trust relationship between teachers and schools is particularly important. There is a written contract in law between the school and the teacher, and the teacher needs to fulfill the obligation in the contract, while the school needs to give feedback on the teacher's salary and welfare. Spiritually, they all have certain expectations for each other. The school's policies determine the professional development and salary level of teachers, while the teaching level and academic level of teachers determine the development of the school. So, the trust between schools and teachers is based on contract and spirit.

3.1 Share Power

The relationship between the school and the teacher is that of employment and employment. As long as the school pays the salary on time, the teacher will bear the consequences if he fails to fulfill his teaching task. From this aspect, the school is on the strong side. When schools have the most resources, too strong control over teachers is not conducive to the establishment of trust. Teachers' attitudes towards schools may be driven by compliance with control (Mayer, Davis, and Schoorman, 1995). Lewicki & Tomlinson (2003) said, "A faculty's trust in their school has been linked with authenticity in teacher behavior and principal behavior". Therefore, the school provides an open environment conducive to the development of teachers. Teachers can report on the work of the principal on time and put forward their suggestions and requirements. The principal can absorb the opinions of the employees and serve as the teacher's own career development direction and working environment, Conducive to mutual trust.

Establish leadership and teachers of the trust relationship, and at the same time establish a good cooperative relationship. School leaders provide help for teachers' achievements, help teachers solve some work problems, and improve teacher achievement (Chughtai and Buckley, 2009; Forsyth and Adams, 2014; Handford and Leithwood, 2013; Notman and Henry, 2011; Salfi, 2011; Tschannen-Moran, 2003, 2009; Zeinabadi, 2014).

As a leader, the principal should encourage teachers to participate in school decisions. If the participation of teachers is recognized, the trust between them will accelerate (Handford and Leithwood, 2013).

3.2 Competence Trust

Teachers' ability to demonstrate themselves is an important part of building trust. The trust of the school in the early stages of the teacher is estimated through the various abilities of the teacher. Kennett (1999) indicates that the initial risk to trust is encouraged by the other's reputation for trustworthiness. Therefore, teachers can increase their awareness of teachers and their popularity

through academic and teaching presentations. This awareness of the abilities of others can accelerate the deepening of their trust (Jefferies & Reed, 2000). A person's ability to demonstrate skills and abilities at work affects cognition-based trust (McAllister, 1995).

3.3 Moral Trust

To gain the trust of teachers, the principal needs to give teachers sincere care in their work, life and may lose some personal benefits, but at the same time promote trust with teachers (Tschannen-Moran, 2014).

In addition, the principal must also maintain justice and fairness (Tschannen-Moran and Hoy, 1998). The teacher trusts the principal to be fair to every employee. The teacher's cognition of the principal is true in the world (Bird et al, 2012, 2009; Hoy and Henderson, 1983; Hoy and Kupersmith, 1985). So, the teacher does not have to worry about the relationship with the principal being unstable. Avoid uncertainties in your work.

4. Trust Between School and Society

Schools are an important part of society. They depend on each other and support each other. They are closely connected, society provides jobs for students, and the school provides a place for the society to nurture talent. The trust of society in schools affects the internal structure of the school and can determine the overall environmental climate of the school. So it is necessary to establish trust in such a cyclical relationship.

4.1 Share Information

Schools and society need to share information openly. Build a bridge of communication, connect with community resources, establish cooperation with institutions, share resources (such as internships and volunteer activities), and help students develop better. Building trust ties can better cooperate and solve service problems for schools. Moreover, the school is eager to get parental support and hopes to synchronize with parents in education, not because of the rules and regulations.

4.2 Competence trust

The school constantly provides opportunities for teachers' career development, improves teachers' ability, and improves the enrollment rate and employment rate. In this process, the school provides talents for society and provides community welfare. The improvement of the comprehensive strength of the school is conducive to building trust with society.

A lot of parents cannot tutor their children or are busy with their work. They rely on and trust the school, which also expects to build a positive relationship with their parents. Because School

education is the supplement and continuation of family education, teachers want parents to recognize that they have played an important role in their children's education (Bryk and Schneider 1996).

4.3 Moral Trust

Schools need to work together to create an environment where all teachers and employees set a positive moral example, Students respect teachers, students subtly imitate, schools do not interfere with student choice and social development, but can build the moral culture to influence students' quality, including daily behavioral habits, fair treatment the ability to deal with negative emotions has become a role model for society and a moral bond with society.

Conclusion

In conclusion, this study indicates that it is meant to promote the effectiveness of schools with the core of building trust. All participants rely on the mutual influence and dependence of the school, and in the good relationship of trust and continuity, the problems caused by uncertain factors can be avoided (Goddard, Tschannen-Moran, & Hoy, 2000). Trust has an important role in student achievement, teacher work attitude, school atmosphere, and social atmosphere, so each need to pay attention to trust and understand enough knowledge. The establishment of trust between teachers and teachers is conducive to bringing a good working environment, bringing a sense of security and reducing work stress. The establishment of trust between teachers and students is conducive to the improvement of classroom atmosphere and student achievement. Teachers and schools are conducive to school reform, the formation of school moral behavior norms. Building trust between schools and society is conducive to building moral bonds, setting an example for society and creating a positive environment together. Teachers, principals, students, and society are all participants in trusting relationships, the participants are all sharing, and efforts to strengthen their ability development and ethics can strengthen the trust relationship of the school.

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A STUDY ON LEARNING MOTIVATIONS OF STUDENTS WITH LEARNING DISABILITIES IN A GUIZHOU VOCATIONAL COLLEGE, CHINA

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Abstract: The study mainly investigated the learning motivation of 276 students with learning disabilities in a Guizhou vocational college, China. through survey and interview methods. Based on the data analysis and interpretation, this study found that the learning motivation from students with learning disabilities showed is at a low level. Through interviews, it is also learned that the current 276 students with learning disabilities have a serious lack of learning motivation, which is mainly manifested in the current situation of lack of learning goals, low learning interest, poor learning attitude, poor learning will, and poor learning habits. Therefore, the learning motivation improvement plan for 276 students was recommended to combine with new media, the learning environment and methods were also recommended to be measured and improved by the administrators and instructors to help these special students build their good learning motivation.

Keywords: Learning Motivation, Students with Learning Disabilities, Guizhou

Introduction

Motivation is an extraordinary and complex matter, as well as it is about the individual's needs and wants to meet a certain goal. Motivation is needed and very important in learning (Gardner, 2007). For every individual, the level of motivation might change from time to time due to the many factors and pressures affecting it, but the social and cultural contexts remain permanent (Foley, 2012). The researcher believed that learners experienced different levels of intrinsic and extrinsic motivation as they face the many challenges in learning, students with special needs from different countries, cultures, in understanding the environment and community. As for the researcher's point of view, students need to know for them to apply what they have learned in the classroom and real-life situations.

The result of the sixth nationwide population census of China announced that China has a population of 1.3 billion, 6.2% (85 million) of which are people with different types of disabilities in 2010 (China Disabled Persons' Federation, 2012). According to the annual report of the Ministry of

Education of the People's Republic of China in 2014, there were 65,977 students registered in special education schools throughout the country, with 50,739 students graduating in the same year.

In short, the Compulsory Education Law of the People's Republic of China (2006) stated that disabled students (including visually impaired, hearing impaired, and intellectual disabilities) have the same right to receive 9 to 12 years of compulsory education; vocational education is the antecedent component of special education. According to the report of the China Disabled Persons' Federation in 2013, 5,357 new vocational institutes for disabled people that accept vocational education were found in the country, and 3,780,000 disabled people have accepted vocational training or learning at various institutions in China.

Special education in China had been established even before the country was independent, yet the related laws and research for special education in China still stayed in an incipient stage (Shi, 2005). There is limited research regarding students' learning motivation in special education in China. The selected Guizhou vocational college is one of those educational institutions that had accepted quite many students with learning disabilities to study their diploma for their higher education. Thus, to understand the real situation of these students with learning disabilities learning motivation, this researcher also decided to survey these students' learning motivation (Li, 2014). Through qualitative and quantitative data analysis, this researcher expected to know the current learning motivation status of 276 students with learning disabilities at Guizhou X vocational and technical college, including their level of learning motivations, and the problems and possible reason that may be reflected by these students' perceptions.

Research Purposes

The study used 276 students with learning disabilities in a Guizhou vocational college as a sample, tried to know the current level of learning motivation of students with learning disabilities from five dimensions: learning goals, learning interests, learning attitudes, learning will, and learning habits, and to propose some strategies to improve the learning motivation of students with learning difficulties. The findings and results may be used to help improve students' learning disabilities in Guizhou X vocational and technical college, China.

Literature Review

Students with Learning Disabilities

Many western countries regard students with learning abilities as a physiological and pathological phenomenon, however, in China, it will be more likely to be regarded as an educational

and social-historical phenomenon, so the definition is not unified (Billingsley, & Cross, 1991; Shi, 2005).

Students with learning abilities, sometimes, is called learning incompetence, which is a general term for a group of people with different types of learning abnormalities who show significant difficulties in acquiring and using learning abilities such as listening, speaking, reading, writing, reasoning, or mathematics, physics, and chemistry. This is different from Children with significantly lower academic performance, which is usually called underachievers in learning (Carr, Dunlap, Horner, Koegel, Turnbull, Sailor, 2002).

Students with learning abilities in China are often defined as underachievers are normal students whose academic performance is significantly lower than the average in one or more subjects. They do not include children with mentally handicapped, physical disabilities, and emotional distress (Dornyei, 2001).

Theories of Learning Difficulties

In the viewpoint of a psychologist, they have unique insights and unique solutions to human psychological and behavioral problems. The main theoretical assumption is behaviorism: previous learning is decisive for current behavior. People's normal or abnormal behaviors (including explicit behaviors and their accompanying psychosomatic reactions) may be formed in the learning process. Many bad living habits or behaviors may be gradually formed and fixed in learning, but it is also possible to correct problem behaviors by intervening in all aspects of behavioral learning. Therefore, for students with learning difficulties, we can find the reasons for the "wrong learned behaviors" in elementary school or even earlier and correct the wrong learning habits through behavior training (Ames & Ames, C. 1991).

The psychoanalytic theory emphasizes that: people's early life experience has an important impact on personality development. Unconscious psychological conflicts or failures of psychological defenses (such as unpleasant experiences in childhood, psychological trauma, etc.) in the unconscious period of childhood are under certain conditions (such as Environmental stimuli, environmental changes, etc.) transformed into various physical, mental, and behavioral problems (Cipani, 1998).

The psychoanalytic theory focuses on helping the seeker to use "free association" and other introspective methods to dig out the various psychological conflicts suppressed in the unconscious, mainly the trauma and anxiety experienced in childhood, and make it enter the consciousness and change (Chapman, 1989) To re-understand the content that individuals can recognize, re-understand themselves, develop more constructive adaptation methods, and change the original behavior mode. Therefore, we can find the root of psychological obstacles caused by early learning in the new environment or other important events from our subconscious mind, re-understand the consciousness

level, and establish a new constructive and positive psychological defense mechanism and learning mode (Pintrich, 2003).

The cognitive theory believes that there is a belief or belief system between environmental stimuli or induced events and emotional consequences. It is not the incident that causes the problem, but the habitual judgment and interpretation of the incident. Reasonable emotion therapy is to encourages people to recognize their unreasonable habitual judgments, explanations, and beliefs and the negative emotional consequences caused by them. By correcting these potentially irrational judgments, explanations, and beliefs, they can change their unreasonable automated thinking and self-frustration. behavior. Therefore, we must first explore the problems in the cognitive system of students with learning difficulties in the learning process and then urge students with learning difficulties to recognize the unreasonable and automated cognitive stereotypes that cause learning difficulties and the negative emotional consequences of these stereotypes. Amend potential irrational cognitive stereotypes in learning, establish a reasonable thinking schema for learning, and a reasonable learning behavior model that suits the students.

The theory of humanism believes that: human beings are individuals with potential and growth. If they develop well in all aspects, they can let their consciousness guide their behavior until they fully realize their maximum potential and become a unique individual. Psychological or behavioral obstacles are caused by the suppression of their personal growth. Poor self-awareness and value conditions imposed by others are the root causes of problems (Adams, 1963). Therefore, we should start with the reasons for the poor self-awareness of students with learning difficulties and whether there are factors affecting their learning difficulties in the surrounding environment. The above-mentioned theories provide us with a psychological mechanism to analyze the reasons for some students' learning difficulties, and make us realize that we cannot simply think that students with learning difficulties are not studying hard, learning methods are incorrect, without learning goals, motivation, or poor foundation, etc. Instead, we should start with the psychological mechanisms that cause learning difficulties, and understand some of the behaviors, experiences, traumas, and potential beliefs and inhibitions that form the early stages of learning difficulties. Only in this way, they can effectively overcome their learning problems.

Learning Motivation

Learning motivation gives individuals varied consequences and experiences (Deci & Ryan, 2008). According to Santrock (2009), “Indeed, motivation is a critical aspect of teaching and learning. Unmotivated students won’t expend the necessary effort to learn” (p. 459). Motivation is “an abstract, hypothetical concept that we use to explain why people think and behave as they do” (Dornyei, 2001, p.1). Motivation is when an individual is prompted to do and to attain a goal of finishing a certain task.

There is a certain impact in the individual that triggers their interest in doing things and there are factors that arouse one's interest. For instance, the incentive or rewards that one can get. Such could be in the form of high scores. In some cases, recognition is given to a student for a job well done (Pintrich, 2003).

Motivation could be perceived, if the student is goal-oriented, focused, and interested in the task at hand. The researcher believed that accomplishment of wishes, hopes, and dreams are directed to one's having goals and that motivation has a strong impact on language learners. Gardner (2007) explained that studying a second language, one could be interested in learning the culture, vocabulary, pronunciation, and language structure of the target language. He also mentioned that motivation covers a vast array of concepts. It covers the reasons why an individual would like to engage in the activity and its purpose or goals. Therefore, one cannot measure motivation as there is more than one given situation encountered by a learner in the process of studying a specific subject.

Students with disabilities may have different kinds of reasons or motives in the process of studying (Witzel & Mercer, 2003). Some learners are more motivated to learn because of the given situation and experience. Some may want to acquire knowledge for other purposes such as family pressure, academic expectation, personal growth, and so on. Gardner (2007) explained that motivation has many concepts in learning that take the learner to a deeper search and motives to gain success in life. A long time ago, researchers had studied the important roles that motivation plays in the life of language learners (Ellis, 1997; Lamb, 2004; Gardner, 2007). Moreover, motivation is like a stimulant that keeps a person in motion and the eagerness to finish a certain action as Lamb (2004) pointed out. There are various motives for an individual to keep on learning, which also happened to a special education learner. Gardner (2005) proposed integrative motivation as to the positive thinking and attitudes towards the language task and instrumental motivation as for the possibility of utilitarian gain or the need of finding a job.

Students with Learning Difficulties in the Selected Guizhou Vocational College

Since the implementation of the first-phase promotion plan for special education in 2014, Guizhou province has increased investment in special education and effectively guaranteed the education of disabled children and adolescents by focusing on the three key tasks of "improving the special education service system, enhancing the ability to guarantee special education, and improving the quality of special education". Education rights, in 2016, the province's public funds for special education compulsory education per student reached the standard of 6,000 yuan.

According to statistics, since 2014, the central government has invested 65.86 million yuan in special education special funds, the provincial level has invested 12 million yuan in special education special funds, and cities (states) and counties have invested more than 200 million yuan in special education special funds. 2 million for the "Reform Experimental Zone" project, 500,000 for the special

education school and resource center project, and 100,000 to 200,000 for the special education resource classroom project. The standard is reasonably allocated to various places for special education schools and compulsory education that enrolls more disabled students in the same class. Stage school construction, support special education schools to improve school conditions, support the construction of special education resource centers (classrooms), support the provision of door-to-door services for severely disabled students receiving compulsory education, and support colleges and universities to strengthen research and guidance on special education, etc.

By focusing on infrastructure construction, the conditions for running special education schools in Guizhou province have been effectively improved. Through the implementation of classified schools, this province has established a special education system with a reasonable layout, the cohesion of school sections, general vocational integration, and integration of medicine and education, to solve the problems of scattered school resources and low utilization efficiency. Focus on the layout of special education schools that solve the problem of visually impaired education in the province, and encourage areas where conditions permit to pilot the construction of special education schools for children with autism. The selected Guizhou vocational college is one of this kind higher educational institution that also provides students with disabilities many opportunities. To effectively protect the rights of the students with disabilities, this vocational college had achieved "full coverage, zero education". "0 Reject", tried the best to arrange for disabled teenagers to receive higher education in an appropriate form and include them in the management of student status. By the school-running goal of "adapting to society and returning to society", The vocational college focused on connotative development, actively research and improving teaching methods according to the physical and mental characteristics and special needs of disabled students and improving the special education curriculum system. This Guizhou vocational college also focused on potential development and Defect compensation, actively created a curriculum system that integrates teaching and rehabilitation covering the trinity of students, teachers, and parents, and effectively improve the level of school education and teaching, management, and school running.

Procedure

Aiming to study the current learning situation of students with learning difficulties in a Guizhou vocational college, after many communications and discussions, the researcher used the original questionnaire from Li's (2014) study to assess students' learning motivation for the students with disabilities at a Guizhou vocational college, China, the questionnaire also will reflect students' learning difficulties or problem in the dimensions of setting up their learning goals, learning interest, learning attitude, learning will, and learning habits. As Cronbach's Alpha for the reliability of each dimension included in the questionnaire was reported from .65 to .86 by Li (2014).

Since the study is especially based on the case of the selected Guizhou vocational college, the researcher used all current-studying 276 students with disabilities as the sample as the participants. A total of 276 questionnaires were distributed in the first semester of the academic year of 2020, and 264 valid questionnaires were returned.

Findings & Results

Learning Motivation of Students with Learning Disabilities: Learning Goals

Among the 264 valid questionnaires returned, the questionnaires designed for learning objectives include question 21, question 22, and question 26. The options for question 21 "How confident are you about your prospects and what do you think of your professional prospects" are as follows. The proportion of A "bright and confident" is 17.42%, and the B option "has not been considered. The percentage of "taking one step and counting one step" accounted for 42.42%, the percentage of selecting C "the prospect is bleak, the future is worrying" was 26.89%, and the percentage of selecting D "other" was 13.26%. The options for question 22 "What kind of college student do you think you are currently" are as follows, the percentage of choosing option A is 18.94%, and the percentage of choosing option B "knowing that the future situation is severe, but at a loss now, I don't know how to work hard" is 57.58 %, the percentage of choosing C "no pursuit, peace of mind, passing the day as one day, not worrying about the future" is 12.88%, and choosing D "being pessimistic about one's future and not knowing what is truly meaningful" is 10.61 %; when question 26 asked whether to formulate their study plan, 6.06% of the students chose "Develop and strictly implement" 35.98% of the students chose "Develop but not strictly enforce", 37.88% of the students chose "No study plan", 20.08 % Of students choose "study according to class schedule".

According to the percentage of options for the above three questions, it can be concluded that more than 50% of students with disabilities are lacking clear learning goals and have no clear learning plan. They have the mentality of taking one step at a time and passing by and have no sense of self. Clear target positioning.

Learning Motivation of Students with Learning Disabilities: Learning Interest

Among the questions related to learning interests, the statistical results of questions 9, 10, and 11 are as follows: Question 9: "Do you feel that you currently treat your professional learning interest" option, 60.23% of the students choose "General", 17.47% of the students chose "not interested"; in question 10 "Understanding of their professional learning requirements" option, 75.38% of the students just "know a general idea", 20.45% of the students said "not clear"; In the question "Driving factors for choosing one's own major" option, it is believed that it is because of personal interest and only 18.56%

of students have meaningful learning. Other students think that the driving factor for choosing their own major is either that they think their major is easy to find a job, or it is I think it doesn't matter which major I can go to university, etc.

According to the above statistical results, at present, 264 early-warning students have poor learning interest, and only 7.58% of students show interest in their majors; among the driving factors for choosing their majors, they are selected because "personally interested in learning The percentage of "meaning" is 18.56%; in the "understanding of their professional learning requirements", only 4.17% of the students are very clear, other students only know the general or unclear about their professional learning requirements. If you are not clear about your major, and the driving factors for choosing a major are not because of personal interest but purely for reasons other than the desire to obtain a college degree or other professional interests, then the learner's interest in learning is, of course, difficult Established.

Learning Motivation of Students with Learning Disabilities: Learning Attitudes and Methods

In the questionnaire survey involving learning methods and learning attitudes, only 7.58% of the students think they are hardworking, but because of their weak learning foundation, learning is difficult, leading to the academic warning; 76.13% of students spend 2 hours of self-study every day after class Within; among the multiple-choice questions that asked "how to spend most of my free time", 59.09% of students are "Internet and playing games", 60.61% are "sleeping", and 50.76% are "reading novels" "Listen to music", it can be seen that these students cannot effectively use their spare time; 75.38% of students choose them to go to the library and reading room "occasionally". It reflected that the 264 early-warning classmates have poor learning attitudes and have not established good learning methods. Unable to make reasonable use of spare time, poor learning enthusiasm and initiative, and serious lack of self-management and self-control ability.

Discussion

The findings showed that 54.55% of students believe that "the surrounding learning atmosphere is not strong enough" is the main school factor that causes their learning difficulties. For this reason, the college counselors can organize and carry out the theme activity month activities for the study style construction to create a good atmosphere for campus cultural activities. Let this part of students give full play to their subjective initiative in the various and rich content of thematic study style construction theme activities. Since these students are some of the students with relatively poor self-management ability, through such an active study style construction activity, so to create a positive learning cultural atmosphere on campus, classes, and dormitories, allowing them to blend into the environment with a

strong learning atmosphere, is very necessary to stimulate their desire to learn actively (Carr, Dunlap, Horner, Koegel, Turnbull, Sailor, 2002).

The survey showed that 71.59% of students think that “poor self-control, lack of parental supervision and attention after college” is the main family factor that causes learning difficulties. For the students in the academic warning group, due to their poor self-management and control ability, it is unrealistic to let them go to self-management completely at this stage. They always need someone in the university who can always guide and pay attention to them. Similar to the role of parents, the role that can replace the supervision and attention of parents is nothing more than the communication and exchanges between counselors and class teachers, and students. Therefore, in the ideological and political education of students, counselors and class teachers need to focus on Academic warning students, through QQ, Weibo, Yibandu’s new media platform as also mentioned by Li (2014), and traditional heart-to-heart talks and other activities to strengthen communication with academic warning students, to help these students get rid of Internet addiction and get up to class on time, through the help of outstanding student leaders The “One Gang One” activity encourages students to attend classes on time, make reasonable use of their spare time, and go to the reading room of the library to learn more, to help them build confidence in active learning (Shi, 2005).

Facing academic early warning students, counselors need to continuously strengthen their career planning education, and carry out systematic career planning education for academic early warning students to help students further understand their professional background, development prospects, and social needs, and carry out their development (Witzel & Mercer, 2003). Since Clear career planning, while helping students establish clear life goals, adjust the correct learning attitude, through systematic career planning education and guidance, is conducive for these students to learn and improve themselves, and form a correct understanding of their profession, as well as establish clear academic goals (Li, 2014). In the later interviews, this researcher also learned that some students were unable to integrate into the learning environment smoothly because of conflicts with friends or family members. It can be seen that the reason for the poor learning motivation of some students mainly comes from psychological factors such as inadequate handling of personal interpersonal relationships or family changes. These factors have become a lingering shadow in the hearts of these students, thus affecting their studies. Cause yourself to become a student with learning difficulties (Shi, 2005).

To help these students get out of the situation of students with learning difficulties, it is undoubtedly necessary to first eliminate the psychological barriers of these students through psychological counseling methods (Bondy, Ross, Sindelar, & Griffin, 1995). Therefore, teachers the first person in the work of ideological and political education for students, they need to continuously strengthen their professionalism in mental health education (Ames & Ames, 1991). Through systematic and specialized mental health education, if teachers could be able to provide special counseling for

students who are an early warning of their studies, help these students learn to be correct, handle interpersonal and family relationships, establish good self-confidence, learn to communicate, and communicate, then they can remove psychological barriers for them to establish a desire for active learning (Billingsley, & Cross, 1991; Cameron, & Pierce, 1996).

Conclusion

This study found students with learning difficulties had a low degree of motivation in learning. The researcher believed students' learning goals, learning interests, learning attitudes, and methods are closely related to their motivation, and academic success. It was expected that through the independent support of teachers and parents to enhance students' learning motivation, students' intrinsic motivation to learn, if trained or nurtured, enables students to progress academically and socially/emotionally, this study only explores students' motivation for learning in students with learning difficulties, few strategies for educational administrators to focus and improve learning motivation for students with learning difficulties were provided as follows: 1). Effectively strengthen the construction of the academic atmosphere of the college. 2). Find a role that can replace the supervision and attention of parents, such as counselors, class teachers, and student leaders to strengthen communication and contact with students with academic warnings. 3) Strengthen career planning education, carry out career planning education for students with academic warnings, and reshape their professional interests and learning motivation. 4) Strengthen the professionalism of mental health education and carry out training and lectures on mental health education. 5). Make full use of the new media platform to establish a learning exchange platform for early warning students

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REDESIGN CURRICULUM SYSTEM FOR ENHANCING COLLEGE STUDENTS' CORE LITERACY UNDER THE BACKGROUND OF NEW ENGINEERING

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Abstract: In the 21st century, a new round of scientific and technological revolution characterized by digitalization, networking, and intelligence is emerging, and industrial renewal and iteration are more frequent. Aiming at the cultivation of new engineering core literacy, this paper firstly analyzed the current situation based on the core literacy courses of "new engineering" students, then revealed the existing problems, and lastly provided the practical strategies to redesign the undergraduate curriculum system, based on the learning from the achievements and experience at home and abroad. In conclusion, the cultivation of core literacy and curriculum design under the background of "new engineering" is an inevitable theme of The Times in the field of higher engineering education. This paper offers references and implications to presidents of China's A-HEI while adapting leadership styles to the present situation and to further research on the educational leadership in China's A-HEI.

Keywords: New Engineering, Curriculum System, Core Literacy.

Introduction

With the rapid development of new industries and new technologies, the demand of economic society for the quality of engineering talents is increasing day by day, and the training of engineering talents in colleges and universities has put forward diversified requirements (Yu & Hu, 2015). It is imperative to redesign or optimize the professional curriculum system from the perspective of national development strategy, the development of higher engineering education, the development of colleges and universities themselves, and the overall development of students. Education administrators thus face the challenge of redesigning school curricula to prepare students for life and work in the 21st century (Wang & Gu, 2020).

In the redesign of the curriculum, it is an inevitable choice to cultivate the core literacy of "new engineering" undergraduates. At present, to cultivate students' ability to adapt to modern and future society, many countries in the world have researched core literacy (Rieckmann, 2011). In 2013, China started an upsurge of research on core literacy and accelerated the construction of a core literacy system

suitable for China's national conditions. In 2016, the Ministry of Education published the overall framework of "Core Literacy of Chinese Students' Development", which laid a foundation for promoting the transformation of education goals and improving the ability of sustainable development of talents (Wang & Gu, 2020). Core literacy, as the concentrated embodiment of knowledge, ability, and emotional attitude, covers the key abilities and characteristics that students must possess under the new situation, and is of long-term value for students to deal with uncertain challenges and risks in the future, which is exactly in line with the development needs of "new engineering" undergraduates. With the continuous advancement of the construction of "new engineering", it has become the common vision and active action of colleges and universities to clarify the core accomplishment of undergraduates, its cultivation path, and curriculum design under the new situation (Wang & Gu, 2020).

1. Curriculum Demand for "New Engineering" Talents

With the vigorous development of a new economy and new technology, the speed of industrial upgrading is accelerated, and the demand for "new engineering" talents is more urgent. If higher education wants to cope with the change of social environment and cultivate "new engineering talents" in line with the needs of The Times, it must aim at improving the core quality of "new engineering" undergraduates, adhere to the growth and development of students as the fundamental, promote the transformation and renewal of educational ideas, and think about future-oriented engineering talents training (Yin, 2020).

1.1 Learner-centered

A learner-centered curriculum proposes to create highly developed individuals, providing them the skills to continue creating learning experiences, digest current knowledge, and create new knowledge within the curriculum itself (Claudia & Martha, 2003). The first consideration of Learner-Centered educators in creating and using curricula is learners' needs, interests, and concerns as learners themselves feel them. It believes learners contain their capabilities for growth (Michael, 2013). The learner-centered ideology pays attention to giving play to students' initiative and enthusiasm in the learning process (Soifer, R., et al., 1989). It requires students to change from the object of knowledge instilling into the subject of knowledge information processing and become the active builder of knowledge meaning. Teachers are required to transform from knowledge inculcators into helpers and promoters of students' active meaning construction (McCombs & Whistler, 1997). And teaching methods mainly consider how to encourage students to actively construct knowledge meaning through setting up scenes, organizing and coordinating conversation and communication activities, and teaching media becomes a cognitive tool for students (Lytle et al., 1989).

1.2 Outcome-based Education

Outcome-based education is based on Behaviorism theory which is an educational model that is organized, implemented, and evaluated based on expected learning outcomes (Kastens & Krumhansl, 2017). Educators under the OBE concept must have a clear vision of the abilities and levels students should achieve when they graduate, and then seek to design appropriate educational structures to ensure that students achieve these desired goals (Sun, 2018).

The concept of outcome-based education emphasizes the output of the results and the achievement of the ability, which is in line with the cultivation requirements of the core literacy of undergraduates of the current "new engineering" and is conducive to improving the quality of engineering education in China as a whole. However, at present, China's engineering education is still lacking in the cultivation of students' key abilities (Bridget & Alana, 2011). There is still a big gap between the quality of engineering talent cultivation and the needs of society and industry, and it is difficult to adapt to the pace of international engineering development (Jiang et al, 2018). Therefore, under the guidance of the outcome-based education concept and by the framework of core literacy, the reverse design of a "new engineering" undergraduate training curriculum can solve the difficult problem of the disconnection between graduates' ability and social needs to a large extent and cultivate excellent "new engineering" talents who can adapt to the development of The Times.

1.3 STEM Education

STEM education is an interdisciplinary education concept, which was originally proposed by the United States. It has played a good guiding role in improving the quality of American citizens and has become one of the most influential education concepts in the world at present (Byhee, 2010). STEM, the acronym of Science, Technology, Engineering, and Mathematics, is not only a simple integration of these four disciplines but also emphasizes interdisciplinary, multi-field inquiry learning and comprehensive application and pays attention to the comprehensive cultivation of students' knowledge, ability, and quality (Newberry, 2004), which can provide new ideas and methods for the cultivation of "new engineering" undergraduates in China.

The engineering system of the future will present a high degree of integration and complexity, requiring students to have more and more interdisciplinary and comprehensive literacy. The traditional teaching model of engineering education makes students lack a broad knowledge horizon, unable to solve complex social problems, so it can no longer meet the training requirements of "new engineering" undergraduates. STEM education concept, as an advanced concept advocating interdisciplinary education and all-around talent training, is of great significance to guide the reform and development of engineering education today. First of all, the core feature of STEM education is interdisciplinary, emphasizing the relevance and interaction of multi-disciplinary knowledge (Byhee, 2010). It focuses

on guiding students to cross traditional disciplinary boundaries, integrates scattered and modular knowledge, realizes the mutual transfer and connection of theories and methods of different disciplines, promotes students to form a systematic knowledge system, and improve the ability to solve complex problems (Sanchez et al., 2000). Second, STEM education is situational. It advocates students to get out of the "ivory tower" of knowledge and find solutions to problems through creation, design, discovery, cooperation, analysis, and other links in the real situation, to enhance students' sense of self-efficacy and achievement. In addition, STEM education is open. The focus of STEM education is not limited to textbooks and schools but expanded to relevant professional places. It advocates the cooperation between schools, enterprises, and research institutes, and through the sharing of laboratories, workshops, and human resources increases the opportunities for students to have a deep understanding of engineering and transform scientific research into practice and innovation (Zhu, 2016). It can be seen that the STEM education concept has important practical value for improving students' interdisciplinary literacy, stimulating students' learning motivation, and improving students' innovative and practical abilities. Therefore, colleges and universities should integrate STEM education concepts into the cultivation process of "new engineering" undergraduates and constantly promote the improvement of students' core literacy.

1.4 Educational Theory of "Grand Engineering View"

The concept of "grand engineering" mainly has three core connotations. First, the concept of "grand Engineering" attaches importance to practice. Only by allowing students to truly participate in actual engineering projects can they turn what is illusory in their minds into reality. The education theory of "Grand Engineering View" advocates the adoption of powerful educational means to cultivate students' practical ability (Li, 2011). Second, "Grand Engineering View" attaches importance to the systematization of engineering. In terms of engineering capability, the "Grand Engineering View" not only requires the mastery of relevant skills within the engineering unit but also pays more attention to the connection between the engineering unit and the whole system as well as the external environment. Third, the "Grand Engineering View" emphasizes innovation. Under the background of the new Industrial Revolution, many new ideas, technologies, and facilities emerge at the historic moment. Higher engineering education must rely on innovation to maintain its sustainable development vitality. Only through innovation can it adapt to social changes and solve various new problems in the future. The educational theory of "Grand Engineering View" covers a wide range of scientific and humanistic qualities, broadens the field of vision of engineering education, and improves the social adaptability of engineering education. The proposed theory aims to abandon the original narrow cognitive concept, enhance the practicality, systematicness, and innovation of engineering education, to return to the essence of engineering education (Li, 2011).

2. Curriculum System Redesign

2.1 Demands and Objectives

Based on international standards and China's major strategic development needs and development reality, combined with the new engineering plan to determine the training objectives of engineering talents in the new era. Starting from the three dimensions of cultural learning, independent development, and social participation, it mainly includes ten core literacy as standards: interdisciplinary integration, innovation and entrepreneurship, engineering leadership, critical thinking, global vision, independent lifelong learning, communication and negotiation, environment and sustainable development, national feelings, and digital literacy (Pei & Liu, 2013).

Engineering graduates have the following objectives:

Subject-specific knowledge and skills -- relatively complete conceptual framework and cross-knowledge system of the engineering field, preliminary engineering experience, and technical ability.

Advanced thinking ability--critical thinking to analyze and evaluate things, practical thinking to solve complex practical engineering problems, innovative thinking to put forward innovative ideas and products.

Work and career preparation--Good communication skills and teamwork skills, the professional spirit of love and dedication, familiar with the policies and laws and regulations of the profession, master and apply engineering management and economic methods.

Humanistic values--family and country feel social responsibility, international vision, humanistic quality, the practice of socialist values.

Personal development--The ability to express oneself in speech, lifelong learning, and self-directed learning, to keep abreast of the development of the subject professionally and technically.

2.2 Strategies for Enhancing College Students' Core Literacy

The curriculum is an important carrier of cultivating core literacy for undergraduates of "new engineering", which is directly related to the acquisition of knowledge and the cultivation of follow-up ability of students and is the key to affecting the quality of cultivating core literacy (Rieckmann, 2011). Therefore, the cultivation of core literacy should be integrated into the curriculum system, while the structure and content of the curriculum should be optimized and improved in time. These are the key strategies and important breakthroughs of cultivating the core literacy of "new engineering" undergraduates.

First, strengthen practical courses. Practical courses are the most direct and effective way to cultivate the core literacy of undergraduates of "new engineering", which can make students "move towards more realistic learning" (Bridget & Alana, 2011). First, practical courses can help students

consolidate basic knowledge and promote the systematization of professional knowledge in the cultivation of core literacy of undergraduates of "new engineering" through hands-on operations. Secondly, practical courses can effectively train and improve students' practical ability, innovation ability, and other key qualities. Finally, practical courses give students more opportunities to get in touch with society, enterprises, and various people, which is conducive to the cultivation of students' spiritual quality (Brundier & Wiek, 2010). Therefore, colleges and universities should strengthen the construction of practical courses from the following aspects: First, by integrating the original course content, eliminating outdated and redundant theoretical knowledge, reducing the number of theoretical course hours, strengthening, and enriching the proportion of practical courses. Second, specific requirements for practice are put forward for each theoretical course, including the types, methods, and class hours of practice, to promote the application and deepening of theoretical knowledge learned in class. Third, colleges and universities should improve the efficiency of practice courses, strengthen the guidance and monitoring of the whole process of practice teaching courses, so that students can truly participate in the development and application of the project, and strengthen the practice effect. Fourthly, practical courses are not only limited to professional practice but also provide multi-level and diversified practical courses according to the development needs of students, to promote the formation of a curriculum system centered on the development of core literacy (Wang et al., 2019).

Second, develop a comprehensive curriculum. In the current era of the knowledge economy, "new engineering" undergraduates should not only master rich professional knowledge but also become people who can use various knowledge comprehensively. At present, science and technology are developing towards cross-fusion, and engineering activities will become more complicated in the future (Russell & Frank, 1988). With the emergence of new modes and forms of engineering activities, the traditional single knowledge structure has been unable to meet the needs of social development. In addition to mastering some professional knowledge, engineering talents should also have non-professional knowledge such as management and economics. Therefore, training engineering talents in interdisciplinary and comprehensive knowledge systems has become the focus of school education. Colleges and universities should speed up the curriculum reform, and actively develop comprehensive courses with interdisciplinary integration so that students' basic knowledge and professional knowledge can be developed together and promote the improvement of interdisciplinary literacy (Sanchez & Lucia, 2000). To be specific, colleges and universities break through the previous curriculum boundaries and jointly open courses by multiple teachers to integrate knowledge related to different departments and majors, promote the cross fusion of different knowledge, and build a curriculum system of mutual penetration of liberal arts, science, and engineering. In addition, colleges and universities should properly set the proportion of general courses and professional courses, strive to provide diversified and wide elective courses, improve the system and consistency of students' knowledge structure, so that

students can have the knowledge reserve of multiple disciplines and form the ability to comprehensively use interdisciplinary knowledge to solve complex engineering problems (Russell & Frank, 1988).

Third, build an international curriculum. With the development of economic globalization, the cultivation of international talents with competitiveness is widely valued by all countries. At present, China's "new engineering" talents should also face the world and have a broad international vision (Fang & Liu, 2020). Constructing an international curriculum is the basic work of cultivating talents for the world. First, colleges and universities should pay attention to the construction of foreign language courses. By offering English reading, writing, speaking and other courses to improve students' English communication level, encourage students to choose a second foreign language, and pay attention to the combination of foreign language learning and professional learning, in the process of foreign language learning to understand the international knowledge and progress of the major. Second, to meet the needs of international knowledge and internationalization, seminar courses are offered to study international economy and trade, international relations and politics, world history and culture, as well as some hot issues that students are generally interested in, to expand students' international knowledge and enhance their understanding of different cultures. Thirdly, strengthen the construction of wisdom introduction courses (Fang & Liu, 2020). Excellent foreign teachers are invited to give lectures regularly, and high-quality course resources involving international cutting-edge knowledge and latest technological progress are introduced into undergraduate classes, to guide students to form the awareness of cross-cultural communication and improve their international vision in the process of communication interaction with foreign teachers.

Fourth, attach importance to innovation and entrepreneurship education, and strengthen the integration of innovation and entrepreneurship courses with specialized courses. Under the background of new engineering, to train new engineering talents to meet the needs of new economic development and improve the innovation and entrepreneurship ability of engineering science and technology talents (Liu, 2019), innovation and entrepreneurship education should run through the whole process of talent training, and construct a three-dimensional interactive higher engineering education system of "specialty education + quality education + innovation and entrepreneurship education" (Sun, 2018).

Fifth, School and enterprise design curriculum together. Enterprises and universities cooperate closely on the basic principles of resource sharing, complementary advantages, and mutual benefit. Enterprises and universities make full use of their different teaching environment and resources as well as their advantages in talent training and jointly participate in curriculum design and talent training to provide many high-quality talents to meet social needs (Shi et al., 2017). At the same time, the output of talents brings direct benefits to enterprises, expands the teaching staff of colleges and universities, and improves the employment rate of students. All participants are mutually beneficial and win-win, which is an educational form that organically integrates enterprise production, practical teaching,

scientific and technological innovation, economic development, and transformation of scientific research achievements (Sun et al., 2017). Its pioneering nature is in line with the cultivation principle of new engineering talents. As the main body of using and evaluating engineering talents, enterprises have abundant engineering education resources. Therefore, colleges and universities can establish an effective link-feedback mechanism with enterprises, and introduce the latest knowledge and skills used in the production practice of enterprises into classes in the form of regular lectures by excellent engineers of enterprises, to realize the timely and synchronous updating of course content (Liu, 2018). In addition, the upgrading speed of enterprise hardware facilities is much faster than that of colleges and universities, which can make use of the advanced equipment platform of enterprises to promote students to accept the latest course content. Enterprise teachers have the most practical experience in the industry and can complement the teachers in the school.

2.3. Strategies for Curriculum Evaluation under the New Engineering Background

Curriculum evaluation is an important means to evaluate the scientific nature of curriculum system construction and ensure the quality of curriculum teaching implementation. Self-evaluation, peer evaluation, and social third-party evaluation should be carried out regularly on the course content, teaching form, and teaching effect of the curriculum system, to clarify the effect of curriculum system construction (Chen & Li, 2018).

Using the results of course evaluation for reference, helps teachers find problems in teaching and promote students' learning continuously and effectively. Aiming at the curriculum system of engineering specialty, the evaluation form of "diagnosis before class -- formation in-class -- reflection after class" is established. Because of the complexity, high level, and practical nature of higher engineering education, it is necessary to carry out diversified evaluations according to the characteristics of engineering courses themselves (Yin, 2020).

The traditional course evaluation method is that the total score equals the ordinary score plus the final score. The ordinary score includes students' attendance, classroom performance, experimental scores, homework, etc., while the final score includes the final exam results, curriculum design, etc. The subject evaluation under the new engineering background should increase the proportion of ordinary score to total score and develop a formative evaluation. Then, the ordinary scores are detailed to the performance of students' various abilities, such as the usual literature review and summary ability, the ability to analyze problems, the ability to solve problems, theoretical research ability, cooperation ability, and innovative thinking ability (Yin, 2020).

These abilities will be evaluated in a variety of ways, including teacher marks and student group marks. The detailed rules of evaluation should be perfected for the interactive discussion links and research-based teaching activities. Fully affirm students' learning process and research process,

encourage students to play their subjective initiative, reflect students' cognition of self-learning, increase group cooperation and coordination and communication among students, and meet the training needs of engineering talents in the new engineering background.

Conclusion

The government issued policies and provided policy support. China's Ministry of Education has issued relevant documents for the construction of a new engineering curriculum, supporting the construction and reform of new engineering curriculum in colleges and universities, and supporting enterprises to participate in the construction of new engineering courses in colleges and universities (Wang, 2020).

A group of "new engineering" talents with stronger adaptability are urgently needed. This puts forward new requirements for the curriculum system design of engineering talents training in colleges and universities (Jiang et al., 2018). As a comprehensive reflection of knowledge, ability, emotion, attitude, and other aspects, the cultivation of core literacy covers the key abilities and characteristics necessary for engineering talents under the new situation and has long-term value for students to deal with the uncertain risks and challenges in the future (Pei & Liu, 2013). Therefore, the cultivation of core literacy and curriculum system design under the background of "new engineering" is an inevitable theme of The Times in the field of higher engineering education.

Recommendations

For the higher education institutions, the administrators should pay attention to the reform of new engineering curriculum construction and improve the system guarantee. Colleges and universities increase investment, make full use of internal and external resources, strengthen training for teachers, improve the overall level of the teacher team. At the same time, invite engineers, entrepreneurs, experts, and other people from outside the school to participate in the course design and strengthen joint talent training with enterprises.

For the teachers working at higher education institutions, they should improve their professional qualities and skills, establish a learner-centered ideology, update the teaching content in time, and meet the learning needs of students. At the same time, teachers should strengthen their learning of the Internet and the use of big data technology to realize the efficiency and convenience of teaching.

For the students learning at a higher education institution, their self-learning ability and correct values should be established. First, students majoring in engineering should pay close attention to the

cutting-edge issues of engineering education in real-time and have their thinking, to form their focus of interest and provide references for future study (Yin, 2020). Second, in-classroom learning, they should have their thinking and actively participate in classroom interaction. In the extracurricular study, they should actively participate in engineering education activities, improve the sensitivity of engineering practical problems, deepen their understanding of engineering education. Thirdly, under the background of new engineering, engineering students should have correct values, such as patriotism, critical thinking, instrumental rationality, and value rationality.

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THE RELATIONSHIP OF THAI PRIMARY 6 STUDENTS' PERCEPTION OF TEACHING EFFECTIVENESS AND LEARNING ATTITUDE WITH ACADEMIC ACHIEVEMENT IN LEARNING CHINESE AS A FOREIGN LANGUAGE AT AN INTERNATIONAL SCHOOL IN THAILAND

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Abstract: The first purpose of this study was to determine Primary 6 students' perceptions of Chinese teachers' effectiveness at an International School in Thailand. Second, the study focused on determining the level of the students' learning attitude toward learning Chinese as a foreign language, and third on determining the level of students' academic achievement for learning Chinese as a foreign language. Fourth, the study investigated whether there was a significant relationship between the students' perception of teaching effectiveness and learning attitude with academic achievement for learning Chinese as a foreign language. The Students' Perception of Teaching Effectiveness Questionnaire (Danielson, 2011) and Attitude Toward Learning Chinese as a Foreign Language Questionnaire (Gardner, 2004) were used in this study. The results of this study indicated that Primary 6 students at an International School in Thailand, on average, perceived their Chinese teachers as effective for learning Chinese as a foreign language. Also, the Primary 6 students, on average, had a very high learning attitude toward learning Chinese as a foreign language. The results also revealed that there was a moderately strong relationship among Primary 6 students' perception of teaching effectiveness and learning attitude toward learning Chinese as a foreign language with Chinese Academic Achievement.

Keywords: students' perception, teaching effectiveness, learning attitude, Chinese academic achievement, learning Chinese as a foreign language.

Introduction

According to Lo Bianco (2007), Chinese has the potential to become a new global language. The twenty-first century is going to be China's century, and with more native speakers than any other language, it seems clear that Chinese will play an increasingly prominent position on the international stage (Svartvik & Leech, 2006). Learning Chinese has become a trendy topic that people have sought and focused on, and "Mandarin Fever" may be considered a worldwide concern (Gao, 2011).

With the trend of global Chinese language learning, Chinese has become Thailand's most popular foreign language, with almost 300,000 students studying it in 700 institutions that are run by the Office of the Basic Education Commission (OBEC). Chinese, Japanese, and Korean have supplanted Western languages such as French and Italian as Thailand's most popular foreign languages (The Nation, 2012).

Teachers who are effective play a critical role in achieving educational goals, because they are continually looking for methods to increase student learning (Akram et al., 2016). Effective teachers are responsible for supervising students, committed to improving students' learning and their performance (Akiri, 2013). Effective teachers can assist students in making great gains in their learning (Sanders & River 1996). The most important measurement of teacher effectiveness is the perception from students (Sutcliffe, 2011). Peterson, K. D., Wahlquist, C., & Bone, K. (2000) argued that students are the ones that engage with their teachers daily and share their experiences with them, they also have strong feelings and opinions on their teachers. Stronge (2006) also claimed that students are crucial participants in the teaching and learning process and can have a greater understanding of teachers' efficacy.

Research Objectives

1. To determine the level of students' perception of teaching effectiveness for learning Chinese as a foreign language in Primary 6 at an international school in Thailand.
2. To determine the level of students' learning attitude toward learning Chinese as a foreign language in Primary 6 at an international school in Thailand.
3. To determine the level of students' academic achievement for learning Chinese as a foreign language in Primary 6 at an international school in Thailand.
4. To determine whether there is a significant relationship between students' perception of teaching effectiveness and learning attitude with academic achievement for learning Chinese as a foreign language at an international school in Thailand.

Literature Review

Danielson's (2011) Framework for Teaching

Danielson's (2011) framework for teaching is based on Dewey, Piaget and Vygotsky's constructivist approach to learning (Danielson, 2007). Over 20 countries are now using Danielson's (2011) teaching framework to guide teacher evaluation and professional development (Mathews, M, H, et al., 2020). A primary tenet of the constructivist learning approach is that the human learning process is an active process in which individual learners provide meaning to the world around them, and the learner's thinking is shaped by that knowledge (Olson, 2007). Danielson's (2011) framework for

teaching model covers four domains: Planning and preparation; Classroom environment; Instruction; Professional responsibilities. The current study focused on two domains: Classroom Environment and Instruction, both of which occur in front of students in the classroom.

Socio-Educational Model of Second Language Acquisition

Gardner's socio-educational model of second language acquisition demonstrates the importance of individual differences in second language acquisition. It is claimed that accomplishment in a second language is mediated by two key variables: linguistic aptitude and motivation. Including integrativeness, attitudes toward learning situations, and instrumentality. The motivation of a language learner is determined by the learning circumstances, which are determined by the teacher's skill, the curriculum, the lesson plans, as well as the evaluation procedures, and other factors. Another crucial factor that influences one's motivation to learn a language is integrativeness, which relates to an individual's willingness to adopt characteristics from another cultural community (Gardner, 2005). Another variable connected to second language acquisition is instrumentality. Motivation, therefore, is a mediator in the relationship between instrumentality and language achievement (Gardner, 2005).

Methodology

This study used a quantitative correlational research design. Danielson's (2011) teaching framework: classroom environment (domain 2), instruction (domain 3) was used as a data collection instrument to evaluate the students' perception of Chinese teachers' teaching effectiveness. The Attitudes Toward Learning Chinese as a Foreign Language Questionnaire developed from Gardner's (2004) International Attitude/Motivational Test Battery, was used to evaluate the students' learning attitude toward learning Chinese as a foreign language. To evaluate the students' Chinese academic achievement, the researcher utilized the Chinese Language final Test as a data-gathering instrument for the independent variable of the study.

To assess the levels of the research variables examined in this study, the numerical data were analyzed by using descriptive statistics (means and standard deviation). A correlational analysis, using multiple correlation coefficients, was carried out to examine the relationship among the students' perception of teaching effectiveness and learning attitude with academic achievement in learning Chinese as a foreign language at an international school in Thailand.

Population and Sample

The target population for this study was the whole Primary 6 class at the target school there were 4 sections in Primary 6 which included a total of 100 pupils. Table 1 depicts the detailed information of the sample for this study.

Table1. Sample of Primary 6 Students at an International School, Thailand

Sections	Sample
1	25
2	25
3	25
4	25
Total	100

Research Instruments

This research study was conducted by using three research instruments: The Students' Perceptions of Teaching Effectiveness Questionnaire; The Attitudes Toward Learning Chinese as a Foreign Language Questionnaire and the Chinese Language Final Test for Primary 6 students of the academic year 2021-2022 at the target school.

The Students' Perceptions of Teaching Effectiveness Questionnaire was derived from Danielson's (2011) teaching framework: Classroom environment (Domain 2) and Instruction (Domain 3), The questionnaire has a total of 23 items, including Domain 2 (9 items and Domain 3 (14 items). The research questionnaire will use 5-point Likert-type scale (1 = *Never*; 2 = *Sometimes*; 3 = *Often*; 4 = *Almost always*; 5 = *Always*) to determine students' perceptions of Chinese teachers' teaching effectiveness. A "5" or a mean score of 4.51-5.00 indicates that students think the Chinese teacher is quite effective, students regard their Chinese teacher as highly ineffective if they receive a score of "1" or a mean score of 1.00-1.50 according to the questionnaire's statements.

The Attitudes Toward Learning Chinese as a Foreign Language Questionnaire, which was generated from Gardner's (2004) worldwide version of AMTB, was employed in this research to investigate how students' learning attitudes learning Chinese as a foreign language affected their academic achievement (Gardner, 2010). The level of motivation for studying Chinese as a foreign language was evaluated using a 7-point Likert scale with six options ranging from 1 = *strongly disagree*; 2 = *moderately disagree*; 3 = *slightly disagree*; 4 = *neutral*; 5 = *slightly agree*; 6 = *moderately agree*; 7 = *strongly agree*.

The Chinese academic achievement for learning Chinese as a foreign language of Primary 6 students in the target school was measured by using the Chinese Language Final Test score in the study. The test was created by two Chinese Primary 6 teachers. Here are 4 sets of test papers for the Primary 6 final test, including Writing, Language use, Comprehension, Oral, and Listening. There are 7 grades to divide students' academic achievement for learning Chinese as a foreign language.

Results

Research Objective 1

Research Objective 1 was to determine the level of students' perception of teaching effectiveness for learning Chinese as a foreign language in Primary 6 at an International School in Thailand. Table 2 illustrates the mean scores, standard deviations, and interpretation of Primary 6 students' perceptions of Chinese teacher effectiveness in the target international school.

Table 2. Mean Scores, Standard Deviation and Interpretation of Primary 6 Students' Perceptions of Chinese teacher Effectiveness in an International School in Thailand

Variable	Primary 6		
	<i>M</i>	<i>SD</i>	Interpretation
Students' Perceptions of Teaching Effectiveness	4.01	1.01	Effective
Classroom Environment	4.09	.99	Effective
Instruction	3.96	1.03	Effective

Overall, Primary 6 students' perceptions of Chinese teacher effectiveness in an International School in Thailand was $M = 4.01$, which can be represented as effective.

Research Objective 2

Research Objective 2 was to determine the level of students' learning attitude toward learning Chinese as a foreign language in Primary 6 at an International School in Thailand. Table 3 displays the mean scores, standard deviation, and interpretation of Primary 6 students' attitudes toward learning Chinese as a foreign language in the target school.

Table 3. Mean Scores, Standard Deviation and Interpretation of Primary 6 Students' Attitudes Toward Learning Chinese as a Foreign Language in an International School in Thailand

Variable	Primary 6		
	<i>M</i>	<i>SD</i>	Interpretation
Attitude toward learning Chinese as a foreign language	6.08	.909	Very High

Overall Primary 6 students' attitudes toward learning Chinese as a foreign language in an International School in Thailand was $M = 6.08$, which is represented as very high.

Research Objective 3

Research Objective 3 was to determine the level of students' academic achievement in learning Chinese as a foreign language in Primary 6 at an International School in Thailand. Table 4 displays the mean scores, standard deviation, and interpretation of Primary 6 students' academic achievement for learning Chinese as a foreign language in an International School in Thailand.

Table 4. Mean Score, Standard Deviation and Interpretation of Primary 6 Students' Academic Achievement for Learning Chinese as a Foreign Language in an International School in Thailand

Grade level	N	M	SD	Interpretation
Primary 6	100	55.46	12.29	B

Overall Primary 6 students' academic achievement for LCAFL in an International School in Thailand was $M = 55.46$, which was interpreted as Grade B.

Research Objective 4

Research Objective 4 was to determine whether there was a significant relationship between students' perception of teaching effectiveness and learning attitude toward learning Chinese as a foreign language with academic achievement in learning Chinese as a foreign language at an International School in Thailand. Table 5 displays the result among students' perception of teaching effectiveness and learning attitude toward learning Chinese as a foreign language with academic achievement in learning Chinese as a foreign language.

Table 5. The Correlations Between Students' Perception of Teaching Effectiveness and Learning Attitude toward Learning Chinese as a Foreign Language with Academic Achievement in learning Chinese as a Foreign Language at an International School in Thailand

Variables	1	2	3
1. Perception of teaching effectiveness for learning Chinese as a foreign language	-		
2. Attitude toward learning Chinese as a foreign language	.366** ($< .001$)	-	
3. Chinese academic achievement	.280** (.005)	.217* (.030)	-

Note. **denotes a statistically significant relationship (statistical significance level set at $p = .01$, two-tailed). * denotes a statistically significant relationship (statistical significance level set at $p = .05$, two-tailed). p -values appear within parentheses below the correlation coefficients.

Table 5 identifies that there was a significant relationship between students' perception of teaching effectiveness and learning attitude toward learning Chinese as a foreign language with academic achievement in learning Chinese as a foreign language at an international school in Thailand at a significance level of .05.

An examination of the bivariate correlations between the independent variables from this study (i.e., students' perception of teaching effectiveness for learning Chinese as a foreign language and learning attitude toward Chinese as a foreign language), indicated that Primary 6 students' perception of teaching effectiveness for Chinese as a foreign language correlated significantly, moderately strongly and positively with their learning attitude for Chinese as a foreign language ($r = .366$, $p < .001$), at a significance level of .05. The coefficient of determination (r^2) for these variables was .093, which indicated that 9.3% of the variance in Primary 6 students' perception of teaching effectiveness could be accounted for by Primary 6 students' learning attitude toward learning Chinese as a foreign language.

Primary 6 students' perception of teaching effectiveness for Chinese as a foreign language correlated significantly, moderately strong, and positively with Chinese academic achievement for Chinese as a foreign language ($r = .280$, $p < .001$), at a significance level of .05. The coefficient of determination (r^2) for these variables is .093, which indicated that 9.3% of the variance in Primary 6 students' Chinese academic achievement for Chinese as a foreign language could be accounted for by Primary 6 students' learning attitude toward Chinese as a foreign language.

Furthermore, the examination of the research finding from Table 17 reveals that Primary 6 students' learning attitude toward Chinese as a foreign language correlated significantly, positively, and weakly with Primary 6 students' Chinese academic achievement for Chinese as a foreign language ($r = .217$, $p < .001$) at a significance level of .05. The coefficient of determination (r^2) for these variables is .093, which indicates that 9.3% of the variance in Primary 6 students' Chinese academic achievement for Chinese as a foreign language could be accounted for by students' learning attitude toward Chinese as a foreign language.

When dealing with multiple independent variables and single dependent variables, correlation analysis using multiple correlations is useful. Multiple correlational coefficients were needed for further calculation since both independent variables from this study were significantly correlated with the dependent variable. Table 6 displays the multiple correlation analysis (using multiple correlational coefficients) in this study.

Table 6. Multiple Correlation Coefficient of Students' Perception of Teaching Effectiveness for learning Chinese as a Foreign Language and Learning Attitude Toward Learning Chinese as a Foreign Language with Chinese Academic Achievement for Learning Chinese as a Foreign Language

Independent Variables	<i>R</i>	<i>R</i> ²	<i>df</i>	<i>F</i>	<i>p</i>
Students' Perception of Teaching Effectiveness for learning Chinese as a foreign language and Learning Attitude Toward learning Chinese as a foreign language with Chinese academic achievement for learning Chinese as a foreign language	.306	.093	2,97	4.99	<.005

Table 6 indicates that there was a moderately strong relationship among primary 6 students' perception of teaching effectiveness for Chinese as a foreign language and learning attitude toward Chinese as a foreign language with Chinese academic achievement for Chinese as a foreign language ($R = .306$, $p = <.005$). Table 18 reveals that students' perception of teaching effectiveness for Chinese as a foreign language and learning attitude toward Chinese as a foreign language explained 9.3% of the variance of Chinese as a foreign language academic achievement ($R^2 = .093$, $F(2,97)$, $p = <.05$). The rest of the variance of academic achievement for learning Chinese as a foreign language is explained by other factors such as self-efficacy in learning the language, motivation for learning the language, or the encouragement of the people from the surrounding of the students.

Discussion

Findings from Research Objective 1, the Students' Perception of Teaching Effectiveness Questionnaire showed that on average, Primary 6 students at an International School in Thailand regarded their Chinese teachers as effective in teaching Chinese as a foreign language in terms of classroom environment and instruction. These findings support Danielson's (2009) statement that the classroom environment and instruction are intricately interrelated. Teachers generally carry out their lessons easily thanks to adequate student engagement and a safe and happy learning environment. Based on these findings, this study agrees with a prior study obtained by Nam, & Gonzalez (2017) who found that between two Myanmar high schools there were substantial differences in students' overall perceptions of English teacher effectiveness in 10th Grade and 11th Grades. 11th Grade students perceived their English teachers as effective under planning and preparation, classroom environment, and instruction of teacher effectiveness identified Danielson's (2011). According to the findings,

English teachers in 11th Grade proved to be more effective than English teachers in Grades 10. This might be the matriculation examination is given in 11th Grade, more experienced teachers are frequently allocated to teach in that Grade.

This finding was familiar with Primary 6 students' perceptions of their Chinese teachers in the researcher's study, since Primary 6 students will have a national examination, so the experienced Chinese teachers are assigned to teach primary 6 students, they have more experience in teaching Primary 6 students. Furthermore, these results are by Akram et al. (2015), who found that students in secondary and higher secondary schools regarded their English teachers were effective under five elements of teacher effectiveness (i.e., subject matter knowledge, instructional planning and strategies, assessment, learning environment, and effectiveness of communication). Students thought their English teachers were effective regarding Planning and Preparation as well as Classroom Environment in this study. This study reflects the same results of Primary 6 students' perceptions of their Chinese teachers regarding classroom and environment in researcher's study, Primary 6 almost have the same ability of perception and evaluation for their teachers.

The Attitude toward Learning Chinese as a Foreign Language Questionnaire findings from Research Objective 2 revealed that Primary 6 students from an International School, on average, had a very high learning attitude toward learning Chinese as a foreign language. The findings agree with the statement by Gardner (2006) that attitude is a powerful factor that affects language performance, and it is especially important in language acquisition since it determines whether students succeed or fail in the learning process. Primary 6 students at an International School have been learning Chinese since kindergarten and they had a good foundation of learning Chinese. They always have experienced Chinese teachers since the national standardized examination International Primary School Leaving Examination (IPSLE) is held in Primary 6. Also, According to Objective 1, On average, Primary 6 students at an International School regarded their Chinese teachers as effective in teaching Chinese as a foreign language in terms of classroom environment and instruction. According to the observation of the researcher, Primary 6 teachers usually implement their teaching smoothly and have appropriate interaction between students and create a safe and positive learning environment in teaching, so Primary 6 students had a great interest in learning Chinese. This study is consistent with a previous study by Htun, A, Z, C., & Lynch, R (2017) which studied how students felt about learning English as a foreign language based on their preferred teaching techniques at a learning center in Myanmar. It showed that the students had a favorable attitude toward the English teacher and that students respected their English teachers and had no animosity toward them. Research Objective 3 revealed that the academic achievement was 55.46 which was interpreted as Grade B, this might be related to the fact that the final test of the academic year 2021 Term 1 was the first final test of primary 6 students, this exam was a

little bit difficult than the final test before, which was made for Primary 6 students to prepare the national standardized examination International Primary School Leaving Examination (IPSLE).

Conclusion

The findings of this study revealed that Primary 6 students perceived their Chinese teachers were effective in teaching and had a very high learning attitude toward learning Chinese as a foreign language, also their academic achievement was interpreted as Grade B. so regard to this study's objectives, there was a relatively strong positive relationship indicated among primary 6 students' perception of teaching effectiveness and learning attitude toward learning Chinese as a foreign language with their Chinese academic achievement.

Based on these findings, to improve the teaching effectiveness in class, students should communicate and connect with their Chinese teachers effectively. They might ask their teachers to have the learning activities and tactics that they enjoy and have an interest in doing. Teachers should carry out instructional procedures as planned, improve teaching tactics, teaching-learning processes, and assessment methodologies that support and build students' positive attitudes toward learning CFL. For school administrators, the subject matter training for Chinese, online classes, and workshops should be held regularly. Future Researchers might look into the relationship between teacher effectiveness and student achievement in subjects like arithmetic, English, Science, and so on. Researchers might also consider investigating whether male and female students have different perceptions of teacher effectiveness in CFL learning, as well as how other demographics (such as ethnicity) impact students' perceptions of teacher effectiveness in CFL classes.

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**A COMPARATIVE STUDY OF GRADE 6 STUDENTS' SELF- EFFICACY
AND ACADEMIC ACHIEVEMENT FOR LEARNING CHINESE AS A
FOREIGN LANGUAGE ACCORDING TO THEIR ENROLLMENT STATUS
IN EXTRA-CURRICULAR CHINESE ACTIVITIES AND CULTIVATION
CLASS AT AN INTERNATIONAL SCHOOL IN THAILAND**

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Abstract: The purpose of this quantitative comparative study was to determine whether there was a significant difference in Grade 6 students' self-efficacy and academic achievement according to their enrollment status in extra -curricular Chinese activities and cultivation class at an international school, in Thailand. A total of 100 Grade 6 students participated in this study. Related data with self-efficacy, academic achievement according to their enrollment status in extra-curricular Chinese activities and cultivation class at an international school in Thailand were gathered through administering a survey instrument, the Self-efficacy for Learning Chinese as a Foreign Language Questionnaire which was adapted from The Motivated Strategies for Learning Questionnaire (MSLQ) developed by Pintrich et al., (1991). The data collected from the questionnaire were analyzed descriptively as frequency tables, mean and standard deviations and inferentially by independent samples t-test. The findings of the research indicated that there was a significant difference between the Grade 6 students enrolled and not enrolled in extra -curricular Chinese activities cultivation class at an international school in Thailand. Based on the findings, the researcher provides recommendations for teachers, students, school administrators, and future researchers.

Keywords: Academic achievement, Chinese as a foreign language, Self- efficacy, Learning Chinese as a foreign language, Extra-curricular Chinese activities and cultivation class, international school in Thailand

Introduction

Self-efficacy influences people's decision-making behavior when they encounter challenges and related stress. It impacts how much time and effort people will put into pursuing their objectives and the length of time for them to achieve those goals (Bandura, 1999).

Students achieve higher grades in specific subjects when they have frequently participated in extracurricular activities related to those subjects. However, those students who engage in other activities, such as cheerleading, hobbies and vocational clubs not specifically related to their academic subjects often have lower grades in those classes (Hunt, 2005). Students' academic levels are positively related to their engagement with school academic extra-curricular activities. They have higher academic achievement when they participate in the extra-activities held by the school, rather than held by the outside school sponsorship (Gerber, 1996).

Research Objectives

The following were the research objectives developed for this study.

1. To determine the level of self-efficacy for learning Chinese as a foreign language of Grade 6 students enrolled in extra-curricular Chinese activities and cultivation class at an international school in Thailand.
2. To determine the level of self-efficacy for learning Chinese as a foreign language of Grade 6 students not enrolled in extra-curricular Chinese activities and cultivation class at an international school in Thailand.
3. To determine level of academic achievement for learning Chinese as a foreign language of Grade 6 students enrolled in extra-curricular Chinese activities and cultivation class at an International School in Thailand.
4. To determine the level of academic achievement for learning Chinese as a foreign language of Grade 6 students not enrolled in extra-curricular Chinese activities and cultivation class at an International School in Thailand.
5. To determine whether there is a significant difference in self-efficacy for learning Chinese as a foreign language between Grade 6 students enrolled and not enrolled in extra-curricular Chinese activities and cultivation class at an international school in Thailand.
6. To determine whether there is a significant difference in academic achievement for learning Chinese as a foreign language between Grade 6 students enrolled and not enrolled in extra-curricular Chinese activities and cultivation class at an international.

Literature Review

Impact of Extracurricular Activities on the Educational Process

Extracurricular activity programs have grown in popularity and acceptance as educational components of the overall school program throughout the previous century. Extracurricular activity participants obtain higher grades than non-participants (Gholson, 1985). Camp (1990) studied 7,668 high school and beyond sophomores and discovered a link between engagement in extracurricular activities and higher grades. Gerber (1996) noted that general extracurricular activity has been linked to academic achievement; however, school-sponsored activities are more strongly linked to achievement than programs with outside sponsorship.

Social Cognitive Theory and Self-Efficacy

Bandura's (1986) social-cognitive learning theory recognizes reciprocal interactions among three areas: an individual's behavioral factors (e.g., actions, choices, achievements), personal factors (e.g., cognitive, emotional and physical competencies, values, beliefs) environmental factors (e.g., external affordances, constraints or demands). This triadic reciprocal determinism concept explains the interplay between behavior, personal traits such as cognition and attachment, and environmental variables that contribute to individual differences in capabilities (Bandura, 1989).

Bandura's Self-efficacy Theory

Communicative Language (CLT) Teaching

The communicative approach, or communicative language instruction, is based on the premise of language as communication (Richards & Rodgers, 1986). It was developed in the late 1960s because of changes in British language teaching traditions. Language teachers began to emphasize classroom activities which could be used to carry out a communicative strategy, for example. task-based job information-gap activities, as well as group work (Richards, 2006). Canale and Swain (1980), among other applied linguistics researchers synthesized numerous perspectives on communicative competency into linguistically focused, logical content, and pedagogically effective structures, which lead to a classroom language teaching approach characterized as real language, real people, real situations. In terms of the current study, this focus fits well with the use of in-school extra-curricular activities which by their nature emphasize real language, real people, real situations.

Methodology

This study utilized a quantitative comparative research design. The self-efficacy subscale of the Motivated Strategies for Learning Questionnaire (MSLQ) developed by Pintrich et al., (1991), was

adapted into the research questionnaire Self-efficacy for Learning Chinese as a Foreign Language. Learning Chinese as a foreign language academic achievement was measured by the Grade 6 final test of academic year 2020-2021, including four different criteria which consisted of speaking, writing, listening and the main paper which focused on grammar and reading. The collected data was analyzed by using descriptive statistics (means, and standard deviations) for objectives 1 to 4. Statistical hypothesis testing (dependent samples *t*-test) was used to address objectives 5 and 6.

Results

In this section, the research findings are presented according to the objectives.

Research Objective 1

Table 1 illustrates the mean scores, standard deviations, and interpretations of the self-efficacy for learning Chinese as a foreign language of Grade 6 students enrolled in extra-curricular Chinese activities and cultivation class at an international school in Thailand.

Table 1. Grade 6 Students Enrolled in Extra-curricular Chinese Activities and Cultivation Class' Means and Standard Deviations for the Self-Efficacy for Learning Chinses as a Foreign Language Subscale Items

Self-efficacy for learning Chinese as a foreign language	<i>M</i>	<i>SD</i>	Interpretation
I believe I will receive an excellent grade from my Chinese class.	5.58	1.14	Moderately high
I am certain I can understand the most difficult material presented in the readings in my Chinese class.	5.30	1.45	Slightly high
I can understand the basic concepts taught in my Chinese class.	5.62	1.38	Moderately High
I am confident I know how to use complex material taught by my Chinese teacher in the class.	5.46	1.18	Slightly High
I am confident I can do an excellent job on the assignments and tests in my Chinese class.	5.46	1.48	Slightly High
I expect to do well in Chinese class.	5.86	1.41	Moderately High
I am certain I can master the skills being taught in my Chinese class.	5.34	1.36	Slightly High
Considering the difficulty of Chinese class, my Chinese teacher, and my Chinese skills, I think I will do well in Chinese class.	5.68	1.41	Moderately High

Total mean score	5.53	1.35	Moderately high
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Table 1 indicates that the mean score of self-efficacies for learning Chinese as a foreign language of Grade 6 students enrolled in extra-curricular Chinese activities and cultivation class at an international school in Thailand was 5.53, within 5.51 – 6.50, which were interpreted as moderately high.

Research Objective 2

Table 2 illustrates the mean scores, standard deviations, and interpretations of the self-efficacy for learning Chinese as a foreign language of Grade 6 students not enrolled in extra-curricular Chinese activities and cultivation class at an international school in Thailand.

Table 2. Grade 6 Students Not Enrolled in Extra-curricular Chinese Activities and Cultivation Class Means and Standard Deviations for the Self-Efficacy for Learning Chinese as a Foreign Language Subscale Items

Self-efficacy for Learning Chinese as a foreign language	<i>M</i>	<i>SD</i>	Interpretation
I believe I will receive an excellent grade from my Chinese class.	3.82	1.40	Neither high nor low
I am certain I can understand the most difficult material presented in the readings in my Chinese class.	3.46	1.49	Slightly low
I can understand the basic concepts taught in my Chinese class.	4.08	1.69	Neither high nor low
I am confident I know how to use complex material taught by my Chinese teacher in the class.	3.76	1.81	Neither high nor low
I am confident I can do an excellent job on the assignments and tests in my Chinese class.	3.64	1.53	Neither high nor low
I expect to do well in Chinese class.	4.02	1.78	Neither high nor low
I am certain I can master the skills being taught in my Chinese class.	3.66	1.62	Neither high nor low
Considering the difficulty of Chinese class, my Chinese teacher, and my Chinese skills, I think I will do well in Chinese class.	3.82	1.73	Neither high nor low
Total mean score	3.78	1.63	Neither high nor low

Table 2 shows that the mean score of self-efficacy for learning Chinese as a foreign language of Grade 6 students not enrolled in extra-curricular Chinese activities and cultivation class was 3.78, within 3.51 – 4.50. It is interpreted as neither high nor low.

Research Objective 3

Table 3 illustrates the mean scores, standard deviations and interpretations of Grade 6 Students Enrolled in Extra-curricular Chinese Activities and Cultivation Class Academic Achievement for Learning Chinese as a Foreign Language Final Grade

Table 3. Means and Standard Deviations for Grade 6 Students Enrolled in Extra-curricular Chinese Activities and Cultivation Class Academic Achievement for Learning Chinese as a Foreign Language Final Grade

Enrollment status	No	Minimum	Maximum	<i>M</i>	<i>SD</i>	Interpretation
Enrolled	50	52.4	100.0	88.79	13.54	Very good

Table 3 indicates that the mean scores of Grades 6 students enrolled in extra-curricular Chinese activities and cultivation class students' academic achievement for learning Chinese as a foreign language final grade was 88.79, whin 74.5-90.4%, It is interpreted very good.

Research Objective 4

Table 4 illustrates the Means and Standard Deviations and interpretations for Grade 6 Students Not Enrolled in Extra-curricular Chinese Activities and Cultivation Class Academic Achievement for Learning Chinese as a Foreign Language Students Final Grade

Table 4. Means and Standard Deviations for Grade 6 Students Not Enrolled in Extra-curricular Chinese Activities and Cultivation Class Academic Achievement for Learning Chinese as a Foreign Language Students Final Grade

Enrollment status	No	Minimum	Maximum	<i>M</i>	<i>SD</i>	Interpretation
Not Enrolled	50	30.6	100.0	72.82	17.16	Fairly good

Table 4 shows that the mean scores of Grades 6 students not enrolled in extra-curricular Chinese activities and cultivation class students' academic achievement for learning Chinese as a foreign language final grade was 72.82. whin 59.5-74.4%. It is interpreted fairly good.

Research Objective 5

Table 5 illustrates the results of Independent Sample t-Test Comparing Students' Self-Efficacy for Learning Chinese as a Foreign Language of Grade 6 Students Enrolled or Not Enrolled in Extra-curricular Chinese Activities and Cultivation Class.

Table 5. Results of Independent Sample t-Test Comparing Students' Self-Efficacy for Learning Chinese as a Foreign Language of Grade 6 Students Enrolled or Not Enrolled in Extra-curricular Chinese Activities and Cultivation Class

Variables	No	<i>M</i>	<i>SD</i>	<i>MD</i>	<i>t</i>	<i>df</i>	<i>p</i>
1. Grade 6 enrolled in extra-curricular Chinese activities and cultivation class	50	5.53	1.17	1.755	6.603	98	<.001
2. Grade 6 not enrolled in extra-curricular Chinese activities and cultivation class	50	3.78	1.46				

Note. There is a significant difference in self-efficacy for learning Chinese as a foreign language toward Grade 6 students enrolled or not enrolled in extra-curricular Chinese activities and cultivation class (statistically significant at .05 level (2-tailed). $n = 50$).

The results of the dependent samples t-test shown in Table 5 reveals, as expected, that there was a significant difference in self-efficacy for learning Chinese as a foreign language Chinese academic achievement between Grade 6 students enrolled or not enrolled in extra-curricular Chinese activities and cultivation class $t(98) = 6.603$; $p < .001$.

Research Objective 6

Table 6 illustrates the Results of the Independent Sample t-Test Comparing Students Academic Achievement for Learning Chinese as a Foreign Language Between Enrolled or Not Enrolled in Extra-curricular Chinese Activities and Cultivation Class.

Table 6. Results of the Independent Sample t-Test Comparing Students Academic Achievement for Learning Chinese as a Foreign Language Between Enrolled or Not Enrolled in Extra-curricular Chinese Activities and Cultivation Class

Variables	No	<i>M</i>	<i>SD</i>	<i>MD</i>	<i>t</i>	<i>df</i>	<i>p</i>
1. Grade 6 enrolled in extra-curricular Chinese activities and cultivation class Chinese academic achievement	50	88.79	13.54	15.97	5.16	98	<.001
2. Grade 6 not enrolled in extra-curricular Chinese activities and cultivation class Chinese academic achievement	50	72.82	17.15				

Note. There is a significant difference in academic achievement for learning Chinese as a foreign language toward Grade 6 enrolled or not enrolled in extra-curricular Chinese activities and cultivation class (statistically significant at .05 level (2-tailed). $n = 50$).

The results of the dependent samples t-test shown in Table 14 reveals, as expected, that there was a significant difference between Grade 6 academic achievement for learning Chinese as a foreign language toward Grade 6 enrolled or not enrolled in extra-curricular Chinese activities and cultivation class $t(98) = 5.16; p < .001$.

Discussion

Self-efficacy plays an influential role in learning generally, including language learning (Bandura, 1989). Mahyuddin, et al. (2006) indicated that self-efficacy is one of the most influential factors in foreign language learning and motivation the findings of the current study indicated that Grade 6 students had higher self-efficacy for learning Chinese as a foreign language among those students enrolled in extra-curricular Chinese activities and cultivation class than the students not enrolled in extra-curricular Chinese activities and cultivation class at an international school in Thailand.

Students' academic achievement for learning Chinese as a foreign language is significantly influenced by their cognitive abilities. It is also influenced by many factors, such as language learning environment, the teachers' teaching methods or self-efficacy for learning language. Teachers can foster a supportive and adaptable learning environment, by using games and simulations to promote interest and put grammar in conversational awareness activities, in which students can reflect on their learning expectations and build a strong feeling of self-efficacy (Frank & Rinvoluceri, 1983; Omaggio, 1993; Scarcella & Oxford, 1992). Students will overcome many obstacles during learning. The findings of this study showed the Grade 6 students enrolled and not enrolled in extra-curricular Chinese activities and cultivation class correlated significantly with their self-efficacy for learning and performance towards learning Chinese as a foreign language.

Similar findings have been reported in many previous studies which have shown the importance of self-efficacy in learning language (e.g., Gahungu, 2009; Lin & Lynch, 2016; Mahyuddin et al., 2006; Wang et al., 2009).

Conclusion

The results of this study indicated a significant difference between Chinese as a foreign Language students' enrollment status and their academic achievement for learning Chinese as a foreign language. Those students enrolled in extra-curricular Chinese activities and cultivation class self-efficacy for learning Chinese as a foreign language was positively high compared to students not enrolled in extra-curricular Chinese activities and cultivation class. Students enrolled in extra-curricular Chinese activities and cultivation class had higher variances in academic achievement for learning Chinese as a foreign language than students not enrolled in extra-curricular Chinese activities and cultivation class.

Based on these findings, teachers should strongly encourage their students to enroll in extra-curricular Chinese activities if available. This will enable students to develop their self-efficacy in learning Chinese as a foreign language by building a comfortable, interesting environment where they can participate in extra-curricular Chinese activities. Students will be able to observe their classmates to see how they perform as they participate in extracurricular classes. The students will be encouraged to engage Chinese communicative language activities, thereby creating an interactive learning environment to enhance their motivation for learning and to achieve a higher efficacy in studying Chinese as a foreign language.

As well as teachers, the administrators should encourage students to enroll in extra-curricular Chinese activities and cultivation class. To respond to the needs of the students, the school directors as leaders of the school and the teachers should appropriately arrange extra-curricular Chinese activities and cultivation class when planning and formulating curriculum and policies for the school.

Future researchers in this area should consider factors not only extra-curricular Chinese activities and cultivation class that can affect students' self-efficacy for learning Chinese as a foreign language, but also student difference such as interests, attitudes toward language learning, family background, teaching methods and other factors which may influence students' academic achievements for learning Chinese as a foreign language.

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STRATEGIES FOR PRINCIPALS' LEADERSHIP DEVELOPMENT IN ART TRAINING SCHOOLS FOR COLLEGE ENTRANCE EXAMINATION

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Abstract: This paper mainly reviewed the principal leadership in education, in the context of Chinese art training school, by explaining the leadership of principals in an art training school, it also explored various leadership of the principal, such as instructional leadership, transformational leadership, and moral leadership. The paper also depicted the demand for principal leadership development especially in the current art training school in China under the background of college entrance examination requirements. Meanwhile, the paper also discussed and provided relevant strategies for principals' leadership development in art training schools, including 1). Establish the principal qualification access system; 2). Establish the principal leadership training system; 3). Establish the leadership evaluation system; 4) The cultivation of leadership is the intrinsic demand of principals. Lastly, to ensure the effectiveness of the leadership of the principal of an art training school, a new open and diversified evaluation system should be established, with an evaluation channel composed of learners, peers, and public supervision.

Keywords: Strategies, Principals' Leadership Development, Art Training Schools, China

Introduction

Since 2000, in response to the requirements of national policies, China's art colleges and universities began to expand their enrollment, which was accompanied by a storm of popular art talent cultivation across the country. As a result, the number of students taking the art joint examination has been rising (Tu, 2018). China has 10.71 million applicants for the national college entrance examination in 2020, and 1.17 million have already applied for the art exam. To pass the exam, almost all art students take part in various art training schools. As a result, domestic art talent training institutions have mushroomed, with the number rising from 3,288 in 2010 to 8,623 in 2018. In 2018, the market size of the art training for the college entrance examination in China is about 8.66 billion yuan (about \$1.224 billion), with a year-on-year increase of about 16.2%. It is estimated that by 2025, the market size of the art training for the college entrance examination in China will reach 17.852 billion yuan (about US \$2.522 billion).

In China, the art joint examination refers to a comprehensive professional examination held at the end of the first semester of the third year of senior high school by the art colleges and universities (Liu, 2007). Only by passing the art examinations can students enter these arts universities through the college entrance examination (Zuo, 2017). Therefore, the art college entrance examination training market has developed unprecedentedly and has become an industry with huge demand and an attractive consumer market. The art training school for the college entrance examination in this paper refers to a school for training such candidates. The quality of school education directly determines whether the examinees can successfully pass the art examination and enter their ideal university (Zuo, 2017). The achievement of students is directly reflected in the passing rate of the art college entrance examination, which is the key to the survival of every training school, the important output of the principal's leadership behavior, and the crucial embodiment of the principal's leadership effectiveness (Hutton, 2017).

Behind the numbers on the scale of the industry, we also see that training school principals face multiple challenges. Initially, the scale of the art training market continues to expand, and art training institutions generally show the characteristics of a large number but small size (Xiao, 2018). It is very difficult to keep from being eliminated in the fierce competition, let alone become a training institution with market influence (Chen, 2015). Moreover, despite the rapid growth of user demand in the training market, how to break through the bottleneck of the development of the industry with uneven levels of teachers has become a problem that training school principals have to face (Xiao, 2018). Thirdly, in the context of declining offline entity training revenue, the multi-training mode relying on artificial intelligence online training + real person offline training will become the development trend of the industry in the future (Brown & Jacobsen, 2016), which will bring great challenges to principals of art training schools. The principal of an art training school assumes diverse responsibilities, he or she is the planner of the school vision, the leader of curriculum and teaching, the extractor of external resources, and the shaper of the internal environment (Ubben, Hughes, & Norris, 2001). Therefore, it is necessary to establish a leadership model for art training school principals so that they can face these challenges more effectively.

1. Principal Leadership on Education

1.1 Principal Leadership and Competence

The research on principal leadership and competence has developed for many years in European and American countries. A large number of empirical studies on the relationship between principal leadership and student achievement can well explain the way and relationship that principal leadership affects student achievement (Day, 2011; Sebastian, Huang, & Allensworth, 2017; Klinginsmith, 2007;

Marks, & Printy, 2003; Day, Gu, & Sammons, 2016; Tan, 2018). These studies have practical guiding values for principals to improve school quality and student achievement.

In The late 1970s, The National Association for Secondary School Principals (NASSP) established The Principal-Competency Index System and used it to guide principals' selection and career development (Brundrett, 2000).

According to the National Education Assessment Center (NEAC), educational leaders should have the following internal abilities (1) Interpersonal Competencies-Leadership, Sensitivity, Stress tolerance; (2) Communicative Competencies-Oral communication and Written communication; (3) Management Competencies-Problem analysis, Judgement, Organizational ability and Decisiveness; (4) Personal breadth competencies-Range of interest and Personal motivation. (Trotter & Ellison, 1997)

From The end of the 1980s, The Scottish Association of Head Teachers started "The School Management Competencies Project" based on the British model, and the research results were released in 1992. The result of this research is a school management standard system. The general requirement of this standard system for school management is to create, maintain, and develop conditions for students and teachers to obtain effective learning (Earley, 1992). The standard system includes 4 aspects and 10 competency requirements. The standard system also gives the competency elements contained in each competency requirement, as well as the performance index and measurement range to be achieved by each competency factor. It specifies the scope and method of collecting evidence when evaluating and measuring each competency indicator, which makes the standard system more operational.

1.2 Principal Leadership in the Context of Art Training School

The art training schools mentioned in this paper are private off-campus training institutions, which organized by social organizations or individuals with non-state financial funds (Chen, 2015). These art training schools have both the function of school education and the nature of enterprise operation (Chen, 2015), so the leadership behavior of their principals will be different from that of principals and business leaders of public schools. Art training school provides students with various paid extracurricular art training services according to the requirements of parents and students (Xiao, 2018). In the field of training schools, a good principle is a good school, because the principal's leadership is an important driving force to improve the school's quality and also the core force to improve students' performance. High-quality and efficient principals are the soul of art training schools. Effective principals can not only retain high-performing teachers but also improve teaching efficiency and change the educational concepts of low-performing teachers (Hallinger & Heck, 1996), thus improving students' performance. The diversity of the principal's responsibilities determines the comprehensiveness of the principal's leadership elements. Empirical evidence also suggests that

instructional leadership, transformational leadership and moral leadership recommended by principals have different effects on students' performance in different ways (Klinginsmith, 2007).

2. Various Leadership of Principals

2.1 Instructional Leadership

Slavin & Madden (2000) found that the instructional leadership of principals is the core leadership in guaranteeing and improving the quality of school education. Effective Principals are instructional leaders who know what effective teaching should be, how to evaluate the effectiveness of teaching, and how to help teachers improve their teaching level (Marks & Printy, 2003). The principal's "instructional leadership" is the principal's ability to plan the school's teaching vision, guide teachers' teaching and students' learning, coordinate various elements of curriculum implementation, guide classroom teaching reform, and promote the common growth of teachers and students (Marks & Printy, 2003; Hallinger, 2005). Such a conclusion also applies to art training schools. To improve the school quality and realize the high efficiency of art training schools, the principal should become an expert in teaching. Its good operation is more dependent on the instructional leadership of the principal, by creating a positive school learning atmosphere, stimulating students' learning motivation, and guiding the school's teaching direction to improve student achievement.

2.2 Transformational Leadership

Transformational leadership of principals is the key and driving force for school reform (Sun & Yang, 2014). It has two main ways to influence students' achievement. One is to promote the transformation and development of the school. The other is to promote teaching reform and teaching method changes, affecting students' academic performance (Sun & Yang, 2014). Marks & Printy (2003) believes that the transformational leadership of principals can significantly improve the collective effectiveness of teachers and the general participation of students through four ways of "idealized influence, spiritual stimulation, intellectual stimulation, and individualized care", and improve students' performance through the overall teaching reform or transformation of schools. When the principal's decision meets the needs of teachers, students, and staff, the principal's influence on students' performance will increase (Tan, 2018). Moreover, the principal's care will be internalized into the school culture and working environment over time, thus affecting students' academic performance (Day, Gu, & Sammons, 2016).

2.3 Moral Leadership

The principal of the art training school is both an image spokesman and an important role model for students. Moral leadership is the moral and spiritual charm of principals that affects students' performance. According to Sergiovanni (1992), the moral leadership of principals has many ways to influence students' performance in school practice, such as influencing organizational culture, shaping leadership stand-in, influencing teachers' job involvement, and formulating school regulations and policies. The foundation of a principal's moral leadership is the principal's values, beliefs, and attitudes, which are constantly strengthened through organizational symbols related to moral leadership, thus affecting the school culture (Bush, 2008), and thereby affecting the learning atmosphere and academic performance of students. Besides, the moral leadership of principals can also influence students' performance through the establishment of school ethics, moral policies, and the moral practice of instructors (Sergiovanni, 1992).

3. The Art Training School in China

3.1 The Principal of the Art Training School

On the one hand, principals have intrinsic demands for leadership (Hutton, 2017). They are eager to get theoretical and practical guidance, so they will support and even warmly welcome the corresponding leadership training. However, on the other hand, the current private training market in China is dominated by small and micro training institutions (Xiao, 2018), whose principals may be the founder, manager, marketer, or even trainer. So, in smaller institutions, principals can be eager for leadership but too busy to participate in training, or even hobbled by access systems and cumbersome evaluation systems. To solve these practical problems, education authorities need to demonstrate scientifically, optimize the access system, training system, and evaluation system. The education authorities also need to consider how to improve the leadership of out-of-school principals while also complying with market discipline and principles.

3.2 The Teachers of Art Training School

For the sake of their interests, professional development, and career, the teachers of training schools will support the leadership development policy of Principal Professional Organization (PPO). Teachers are the soul of every training school. Without teachers, training is impossible. Most of the teachers in art training schools are part-time teachers, and the main reason for their greater mobility is that their material and spiritual needs cannot be met through those schools (Chen, 2015). Good human resource management is the best guarantee for teaching quality and the key to the development of training schools (Xiao, 2018). Different from other resources, teachers are people with personalities,

emotions, and thoughts. The principal not only attracts excellent teachers to the training school but also retains talents. In a good leadership training school, teachers are respected and satisfied, the potential of teachers is maximized, and the value of teachers is realized.

3.3 The Students of Art Training School

With effective leadership, the principal makes the training school run well and develop in a coordinated way. Students are the biggest beneficiaries of quality training services, so they will support the principal's leadership development policy. Art training schools make up for the shortcomings of regular school education in meeting personalized needs (Chen, 2015). They can provide a variety of high-quality training programs according to the market requirements, meet the diversified educational needs of different student groups (Fu, 2013), and enable students to pass the art examination. However, as students are an important part of the assessment system, if the assessment method of the principal's leadership is too complicated or unreasonable, it may lead to the dislike and resistance of students and parents. Therefore, it is crucial to rationalize the assessment method.

4. Principals Leadership of Art training schools

As mentioned above, principals should take teaching as the core, reform as the driving force, and morality as the guide. This requires principals to take teaching as the priority, take the construction of organizational reform and governance mechanism as the driving force for school quality improvement, and lead the development of schools with lofty moral and spiritual charm. The author suggests that the Principal Professional Organization (PPO) should be established by education authorities based on the existing trade association. As a non-governmental organization, Principal Professional Organization (PPO) is the representative of principals' group interests in private training schools. It can serve its members in a larger scope and promote the improvement of principals' professional quality. The Principal Professional Organization (PPO) can make greater contributions to improving the quality of education and teaching and students' achievements by establishing the principal qualification access system, the principal leadership training system, and the leadership evaluation system.

5. Strategies for Principals' Leadership Development in Art Training Schools

5.1 Establish the Principal Qualification Access System

In February 2013, the Chinese Ministry of Education issued the "Professional Standards for Principals of Compulsory Education Schools" (Jin, 2017). The standard states that a principal is a

professional who performs the responsibilities of school leadership and management. Although art training schools are private educational institutions, they are also under the supervision of the educational authorities and should set up a principal qualification system, which is a special principal professional qualification access system from the source. In this way, private art training school administrators can be forced to carry out the corresponding learning tests, obtain the corresponding qualifications to open art training schools.

5.2 Establish the Principal Leadership Training System

China's education administrative departments attach great importance to the training of principals in public schools. In terms of the training section, there are mainly orientation training, on-the-job improvement training, backbone training, and so on. In terms of system, a relatively complete four-level training system of "national, provincial, regional, and county" has been formed (Jin, 2017). Because of the current living environment of private training schools, the principals should be included in the corresponding training mechanism. Jin (2017) found in her research that teachers in training institutions also hope to provide principal training in the form of laws and regulations, and the appointment and evaluation of principals should be combined. In other words, principals to be promoted should be those who have participated in headmaster training and performed well in the training. Therefore, the Principal Professional Organization (PPO) should carry out the needs analysis of principals, the development of the contents and implementation of leadership training courses, and the evaluation of leadership training.

5.3 Establish the Leadership Evaluation System

Developed countries such as the United States and the United Kingdom have gradually established the principal assessment system after World War II (Allensworth & Hart, 2018), while China has not yet formed a systematic assessment system (Chen, 2015). At present, the principal assessment in China is mainly carried out in the form of assessment and supervision. For example, the annual assessment of principals in all districts and counties in Shanghai usually includes school philosophy and management, curriculum and teaching, moral education management, teacher team construction, logistics service and management, school culture, and other aspects (Zou, 2017). The leadership of principals is assessed from the implementation of school supervision and assessment (Zou, 2017). Based on the practice of public schools, Principal Professional Organization (PPO) could follow the example of public schools and include the assessment of principals' leadership in their annual review.

It's of great importance to establish a Principal Professional Organization (PPO) led by education authorities and industry associations, to improve the quality of art training schools and finally

improve students' achievements. Moreover, Principal Professional Organization (PPO) improves the comprehensive leadership of art training school principals by establishing principals' qualification access system, leadership training system, and evaluation system. The author will elaborate on the rationality and effectiveness of this proposal from the following three aspects: demand, process, and results.

5.4 The Cultivation of Leadership is the Intrinsic Demand of Principals

Leadership is not something that people are born with. It can be trained and requires professional training (Morrison, 2010). The father of modern management Peter Drucker once said that in this world, some people naturally have high leadership quality, but the situation is a minority, and these people cannot be directly called "leaders", because every leader is in the process of learning (Matthews & Lewis, 2009). Improving the principal's leadership not only meets the requirements of the development of the times and the national education reform, especially the curriculum reform but also the need to promote the development of the connotation and quality of the school (Marks & Printy, 2003). Principals should continuously enhance their unofficial influence, continuously improve their professional authority, through self-cultivation and participation in various forms of training activities, and guide all teachers to improve their teaching level with their professional prestige (Klinginsmith, 2007). From administrative authority to professional authority, from technical leadership to cultural leadership, from individual leadership to common leadership. Therefore, the cultivation of leadership is the internal demand for the professional development of principals (Hutton, 2017).

If the principal of an art training school wants to lead the school through the strict market test, he or she should constantly improve and perfect his or her leadership, provide more sufficient human resources for the development of the school, and make the school operate stably and grow continuously (Amanchukwu, Stanley, & Ololube, 2015). In this way, the quality-of-service products can be improved, that is, students' performance can be improved (Allensworth & Hart, 2018). Improving the leadership of principals through Principal Professional Organization (PPO) is the driving force for sustainable development of training schools and the foundation for teachers, students, and schools to achieve a win-win situation.

Conclusion

To ensure the effectiveness of the leadership of the principal of an art training school, a new open and diversified evaluation system should be established, with an evaluation channel composed of learners, peers, and public supervision should be opened.

Therefore, this effect evaluation of courses in training schools should be conducted in the form of periodic student public class display, which allows students' parents, representatives, and other social

relations to participate in the evaluation and inquiry of courses in the school. At the same time, it can also invite training teachers and experts from other schools to give comments and participate in the professional evaluation of courses. Then, under the principle of fairness, equality, and truth, the media should be allowed to get involved in the education and training market and conduct public opinion supervision. The media has exposed irregularities, mismanagement, fraud, dishonesty, and other activities in running schools, so that enabled the public to exercise comprehensive, full, and effective oversight of relevant issues. This trinity stereoscopic evaluation system is an important guarantee for the effectiveness of the principal access system and leadership training system.

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PROJECT BASED LEARNING AND ITS EFFECT ON GRADES 7, 8 AND 9 THAI FEMALE STUDENTS' INTEREST IN FUTURE STEM CAREERS

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Abstract: In response to the shift in job demands in the 21st century, it is imperative that educators explore alternative learning methods to better prepare students for future work landscapes. This study investigated project-based learning as a viable solution to engage students in STEM studies and careers. The research drew on responses from a population sample of 191 Grade 7, 8 and 9 students in order to measure, compare and determine correlation between the research variables. Sampling was conducted using Perceptions of PBL and Interest in Future STEM Careers instruments adopted from LaForce et al (2017). Data analysis confirmed a significant relationship between PBL and promoting interest in future STEM careers in Grades 7, 8 and 9 students. Recommendations on successful implementation of PBL elements as well as suggestions for the PBL teacher to assume a role as mentor are discussed by the researcher.

Keywords: Project-based learning, STEM careers

Introduction

Careers in STEM are considered to be the jobs of the future yet there is a current shortage to meet this demand in the labor market (Caprile et al., 2015). The field of education is constantly adapting to these needs and is essential in shaping the workforce of the future. The recommended response to this need is to upgrade education policies and programs to hone STEM skills across all levels (World Economic Forum, 2018). This research aimed to investigate the viability of project-based learning as a catalyst for engaging students in future STEM careers.

Project based learning is an extended learning task based on a simulated or authentic real-world challenge that requires deep inquiry, collaborative work, production, reflection, iteration. (Thomas, 2000). At St. Joseph Convent School, a one-hour per week PBL course was introduced to the students of the English Program in 2016. In this course, students are given a theme, or a driving question and they use the Engineering Design Process to identify a problem, find a solution, implement the solution, iterate the solution for improvement and present their findings. Math, science, English and ICT grade

level teachers collaborate to monitor and support their specific components of the project. Students work on their term-long projects in small groups of five to six students.

This study draws on the Social Cognitive Career Theory (SCCT) developed by Lent et al. (1994) which emphasizes experiential factors such as learning experiences to predict future career choices. More specifically in this study, these learning experiences are defined as PBL activities at St. Joseph Convent School.

Research Objectives

The following objectives guide the direction of the research.

1. To determine the levels of Grades 7, 8 and 9 English Program students' perceptions of project-based learning at St. Joseph Convent School, Bangkok, Thailand.
2. To determine the levels of Grades 7, 8 and 9 English Program students' interest in future STEM careers at St. Joseph Convent School, Bangkok, Thailand.
3. To determine if there is a significant difference among the levels of Grades 7, 8 and 9 English Program students' perceptions of project-based learning.
4. To determine if there is a significant difference among the levels of Grades 7, 8 and 9 English Program students' interest in future STEM careers at St. Joseph Convent School, Bangkok, Thailand.
5. To determine if there is a significant relationship between Grades 7, 8 and 9 English Program students' perceptions of project-based learning and students' interest in future STEM careers at St. Joseph Convent School, Bangkok, Thailand.

Literature Review

Project based learning is deeply rooted in the constructivist learning theory which suggests that through an individual's personal experiences and subsequent reflection on them, they construct their own understanding and knowledge of the world (Bada, 2015; Beckett & Slater, 2019; Bereiter, 1994). This study drew on previous research by Larmer and Mergendoller (2015) and their recommendation of the essential elements of PBL: a challenging problem or question, sustained inquiry, authenticity, student voice and choice, reflection, critique and revision, and a public product. A study by LaForce et al. (2017) indicated that PBL is an instructional approach that can increase students' interest in STEM careers. The study drew upon survey responses from 3,852 high school students at 17 inclusive STEM high schools across the United States and examined the use of project-based learning to increase interest in STEM careers. Analyses from this study also indicated that students' perceptions of PBL significantly predicted students' interest in pursuing STEM careers. Several other studies show evidence that engagement in PBL activities can increase self-efficacy and confidence in STEM

disciplines (Baran & Maskan, 2010; Cerezo, 2015) which, consequentially, could lead to more positive attitudes toward STEM studies and later a career in STEM fields.

Research findings have shown that PBLs not only improve students' conceptual knowledge but also their intrinsic motivation and self-efficacy (Massa et al., 2009). This is also supported by Cerezo (2015), who showed that PBLs were particularly effective in enhancing STEM self-efficacy in middle school girls. Berk et al. (2014) showed that learners who had experienced PBL were more inclined to engage positively with STEM which resulted in them considering careers in STEM-related fields.

Social Cognitive Career Theory (Lent et al., 1994) posits that for interests to grow in a particular occupation or educational area, individuals must be in environments that expose them to compelling learning experiences that can encourage the formation of strong self-efficacy beliefs and positive outcome expectations. SCCT is a relatively new theory that aims to explain three interrelated aspects of career development: (1) how basic academic and career interests develop, (2) how educational and career choices are made, and (3) how academic and career success is obtained. This theory considers different factors such as interests, abilities and environmental factors which also appear in earlier career theories supported by evidence to affect career choice. SCCT is based on Albert Bandura's general social cognitive theory, an established theory of cognitive and motivational processes which has been used in countless other studies and theoretical development related to academic achievement, pedagogical development, psychosocial functions, and behavior (LaForce et al., 2017).

The SCCT framework looks at the individual's decision-making process leading to career choices, as well as other factors that promote or limit personal choice and agency. Specifically, the theory focuses on the following variables: self-efficacy, expected outcomes, goals, contextual factors and experiential learning factors (Lent et al., 1994). Hence, experience with PBL and STEM may be a key path for students to pursue higher education and careers related to STEM (Wang, 2013).

Criticism of PBL was also reviewed. Kirschner et al. (2006) argued that learning and teaching approaches such as project-based learning that offer minimal guidance from teachers are not supported by empirical evidence and that research supports strong teacher guidance throughout the process.

Methodology

This study was a comparative-correlational quantitative data analysis that measured and compared Grades 7, 8 and 9 students' perceptions of PBL as well as their interests in future STEM careers. This study aimed to investigate the relationship between Grades 7, 8 and 9 English program students' perceptions of PBL and their interest in future STEM careers. The population of this study included Grades 7, 8 and 9 English Program students at St. Joseph Convent School, Bangkok, Thailand, during the academic year 2020-2021. There are two terms in an academic year and each project took approximately 12 weeks. There were 80 students in Grade 7, 80 students in Grade 8 and 74 students in

Grade 9. Due to the Covid-19 pandemic, there was a high rate of absent students. Only 191 out of 234 students participated in the survey. Forty-three students were absent due to illness or their family's preference to stay home due to concerns regarding Covid-19 infection. The population sample consisted of 56 students in Grade 7, 72 students in Grade 8 and 63 students in Grade 9. There were 191 respondents in total.

The research utilized two instruments to measure the two variables: Perceptions of PBL Questionnaire and Interest in Future STEM Careers (IFSTEMC). Both questionnaires were adopted from a 2017 study by LaForce et al. in Chicago to investigate how PBL might address the growing demand in the STEM workforce. The two instruments were originally administered to 20 selected inclusive STEM schools in seven states in America.

The first instrument, called the Perceptions of PBL Questionnaire measured the independent variable of the study: Grade 7 to 9 students' perceptions of PBL. It is a 12-item questionnaire scored on a 6-point Likert-type scale anchored by never and always. All 12 items were used in this study to determine the levels of Grades 7, 8 and 9 English Program students' perceptions of project-based learning. Exploratory factor analyses were conducted to investigate construct validity. Reliability was measured at $\alpha = 0.96$. The second instrument was the Interest in Future STEM Careers (IFSTEMC), which measured the levels of Grades 7, 8 and 9 English Program students' interest in future STEM careers at St. Joseph Convent School. Each item was measured on a 6-point Likert scale anchored by strongly disagree and strongly agree. Exploratory factor analyses were conducted to investigate construct validity. The scale achieved high reliability $\alpha = 0.97$. Descriptive statistics, means and standard deviations, as well as Analysis of Variance (ANOVA), and Pearson Product-Moment Correlation were used to analyze the data gathered.

Results

According to the data gathered from the Perceptions of PBL Questionnaire, Grades 7, 8 and 9 English Program students had high perceptions of PBL at St. Joseph Convent School, Bangkok, Thailand with an overall mean rating of 4.70. Table 1 highlights the means per grade level, the overall mean score for perceptions of PBL, their standard deviations and their interpretations.

Table 1: Means, Standard Deviations and Interpretations for Students' Perceptions of PBL

	<i>M</i>	<i>SD</i>	Interpretation
Grade 7	4.79	.85	High
Grade 8	4.58	1.17	High
Grade 9	4.76	1.03	High
Total	4.70	1.04	High

Based on the evidence obtained from the IFSTEMC Questionnaire responses, the research found that Grades 7, 8 and 9 English Program students at St. Joseph Convent School, Bangkok, Thailand, had high levels of interest in future STEM careers with an overall mean rating of 4.51. Table 2 shows the means per grade level, the overall mean score for IFSTEMC, their standard deviations and their interpretations.

Table 2: Means, Standard Deviations and Interpretations for Students' IFSTEMC

	<i>M</i>	<i>SD</i>	Interpretation
Grade 7	4.54	1.02	High
Grade 8	4.38	1.35	High
Grade 9	4.61	1.39	High
Total	4.51	1.25	High

Further, a one-way Analysis of Variance (ANOVA) showed that the effect of students' grade level on their perceptions of PBL was insignificant at $F(2, 188) = .82, p = .44$. Therefore, there was no significant difference in the students' perceptions of PBL in Grades 7, 8 and 9. The ANOVA results are shown in Table 3.

Table 3: ANOVA Results for Students' Perceptions of PBL

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.77	2	0.89	0.82	0.443
Within Groups	203.44	188	1.08		
Total	205.21	190			

Similarly, a one-way ANOVA was conducted to determine if there was a significant difference among Grades 7, 8 and 9 English Program students' interest in future STEM careers. It showed that the effect of students' grade level on their interest in future STEM careers was insignificant at $F(2, 188) = .54, p = .58$. Therefore, there was no significant difference in the students' interest in future STEM careers in Grades 7, 8 and 9. The ANOVA results are shown in Table 4.

Table 4: ANOVA Results for Students' Interest in Future STEM Careers

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.78	2	0.89	0.54	0.582
Within Groups	307.87	188	1.64		
Total	309.65	190			

Most importantly, the research found a significant relationship between the Grades 7, 8 and 9

English Programs students' perceptions of project-based learning and their interests in future STEM careers. A Pearson correlation coefficient was computed to assess the relationship between students' perceptions of project-based learning and their interests in future STEM careers. Table 5 indicates a significant relationship between Grades 7, 8 and 9 English Program students' perceptions of project-based learning and students' interest in future STEM careers at St. Joseph Convent School at .05 level. Table 5 shows a very strong and significant linear relationship of students' perceptions of project-based learning and their interest in future STEM careers ($r = .73$, $p < .001$). The p value confirms a positive relationship.

Table 5: Pearson Product-Moment Correlations Between Perceptions of PBL and IFSTEMC

Variables	1	2
1. Perceptions of PBL	-	.73** (< .001)
2. Interest in Future STEM Careers	.73** (< .001)	-

Note. **. indicates a statistically significant relationship (statistical significance level at $p = .05$, two-tailed) while p -value appears within parentheses below the correlation coefficients.

Discussion

Perceptions of Project Based Learning

The results of the study showed that Grades 7, 8 and 9 English Program students had positive perceptions of project-based learning at St. Joseph Convent School, Bangkok, Thailand. It also showed that there was no significant difference between Grades 7, 8 and 9 English Program perceptions of project-based learning at St. Joseph Convent School, Bangkok, Thailand.

It is important to note that the PBL model implemented in the English Program at St. Joseph Convent School employs seven design elements of PBL (Larmer & Mergendoller, 2015). These include a challenging problem or question, sustained inquiry, authenticity, student voice and choice, reflection, critique and revision, and a public product. The program aimed to engage students in discussion, research, student-led collaboration, prototyping, iteration, and presentation. These elements can offer an explanation regarding the students' positive perceptions of these learning experiences.

As discussed in the literature review, PBL tasks can result in positive results if they are relevant, real-world problems. The driving question is arguably the most important aspect of PBL. Examples of PBL driving questions or challenging problems that were given to the Grades 7, 8 and 9 English Program students at St. Joseph Convent School are as follows.

- What will the sustainable home of the future look like?
- Create a technological solution for an issue or problem that you care about.
- Identify a problem relating to Covid-19 and create a product or service that helps to solve

the problem.

The overarching theme, the standard PBL brief and the consistent structure across the grade levels in this study offer a possible explanation as to why there was no significant difference in the students' perceptions of PBL Grades 7, 8 and 9 English Program students at St. Joseph Convent School, Bangkok, Thailand.

In response to criticism of PBL and its ineffectiveness due to minimal guidance (Kirschner et al., 2006), this researcher argues that guidance can be strong and consistent during PBL while still respecting the students' choices. Grades 7, 8 and 9 teachers acted as mentors who approved the students' proposals, offered advice and conducted regular follow-ups. Grades 7, 8 and 9 teachers implemented weekly check-ins and used mentor checklists to guide students toward successful completion of their projects. The findings suggest that consistent and strong guidance during PBL produce positive perceptions of PBL.

In reviewing the literature, the criticism from Kirschner et.al. (2006) was not unfounded. Earlier versions of PBL focused on experiential learning or learning by doing. Constructivists argued that meaningful learning is a largely self-managed process wherein the individual draws on previous knowledge, reflects and constructs new knowledge (Bereiter, 1994; Von Glasersfeld, 1995). Dewey's theory of experience saw the teacher as a facilitator of the stimuli, creating planned experiences for students in order to simulate real-world situations (Dewey, 1938). Kolb's (1984) experiential learning theory offered a cycle with four stages: concrete experience, observation and reflection, forming abstract concepts, and testing in new situations. Teacher feedback, advice, mentorship and guidance are not mentioned as a crucial element. However, later implementations of PBL including the one used for this current study, involved critique and guidance from teachers (Larmer & Mergendoller, 2015).

An implication of the findings related to the perceptions of PBL variable is the possibility that ensuring proper implementation of the seven design elements of PBL can result in positive learning experiences and successful project-based learning. Appendix H shows examples of students' work during PBL in the first term of 2020.

Interest in Future STEM Careers

The research findings show that Grades 7, 8 and 9 English Program students have high levels of interest in future STEM careers. There are several possible explanations for this result. First, previous research indicated that one of the factors that determine career interest is the quality of a student's learning experience in a particular domain. Social Cognitive Career Theory (Lent et al., 1994) posits that when individuals develop positive outcome expectations and self-efficacy related to activities in a domain, for example STEM, those individuals become more likely to pursue studies and later on, careers in STEM. Second, environmental and socio-economic factors play an undeniable role in career

and academic choices (Caprile et al, 2012). Grades 7, 8 and 9 English Program students at St. Joseph Convent School, Bangkok, Thailand have access to facilities such as a modern laboratory, a state-of-the-art computer room, access to the internet and well-appointed classrooms. In addition, most Grades 7, 8 and 9 English Program students come from families with higher educations and socio-economic backgrounds. STEM activities and studies are available and encouraged in their social strata. Third, the recent years have offered more media representation of women in STEM careers. This generation of students are seeing more female doctors, engineers, programmers and other STEM professions than ever before. Not only is it more common, it is also seen by society as a desirable career path. As mentioned in the literature, the representation of media and society's treatment of women strongly influence the participation of women in STEM (Sáinz et al., 2012).

It is interesting to note that there was no significant difference in the levels of Grades 7, 8 and 9 English Program students' interest in future STEM careers at St. Joseph Convent School, Bangkok, Thailand. It can thus be suggested that Grades 7, 8 and 9 students at St. Joseph Convent School, Bangkok, Thailand have similar access to learning opportunities and exposure to STEM. This finding can also be explained by the fact that St. Joseph Convent School, Bangkok, Thailand, is an all-girls school. Although gender bias in STEM careers was discussed in the literature, it was not relevant in the data obtained from the current study.

Perceptions of Project Based Learning and Promoting Interest in Future STEM Careers

The most important clinically relevant finding was the significant strong and positive correlation between Grades 7, 8 and 9 English Program students' perceptions of project-based learning and their interest in future STEM careers at St. Joseph Convent School, Bangkok, Thailand.

This study supports evidence from previous research (Baran & Maskan, 2010; Cerezo, 2015; Çevik, 2018; LaForce et al., 2017) which have found positive relationships between engagement in PBL activities and STEM career interest.

The observed correlation between perceptions of PBL and interest in future STEM careers might be explained in this way: PBL offers a viable avenue for students to experience STEM interactions so that they may pursue it in further studies and eventually, a career in STEM. When PBL is executed with proper planning and implementation, students are given an opportunity to tap into various subject areas while gaining experience in skills required for STEM jobs. PBL can offer a healthy environment which exposes students to compelling learning experiences that can encourage the formation of strong self-efficacy beliefs and positive outcome expectations in STEM studies and activities. Therefore, positive learning experiences, strong self-efficacy belief and positive outcome expectations related to STEM during PBL will most likely lead to positive interest in future STEM careers.

Conclusion

The high levels of students' perceptions of project-based learning in Grades 7, 8 and 9 English Program at St. Joseph Convent School, Bangkok, Thailand indicated that students had a positive learning experience in their 1-hour per week project-based learning. During each term's 12-week long PBL, students found that project-based learning offered student-led activities which allowed them to relate previous knowledge in multiple subjects to real-world problems. The process of inquiry, collaboration and resolution had a positive effect on the student's perceptions of project-based learning.

Furthermore, the high levels of students' interest in future STEM careers in Grades 7, 8 and 9 English Program at St. Joseph Convent School, Bangkok, Thailand, indicate that the students are likely to consider pursuing a degree in STEM in university. It can be concluded that the students are interested in future STEM careers.

There was no significant difference among Grades 7, 8 and 9 English Program students' perceptions of project-based learning at St. Joseph Convent School, Bangkok, Thailand. This finding suggests that the students across all three grade levels in the study had positive perceptions of their PBL learning experience.

Similarly, there was no significant difference among Grades 7, 8 and 9 English Program students' interest in future STEM careers at St. Joseph Convent School, Bangkok, Thailand. It can be concluded that the students across all three grade levels in the study had high levels of interest in pursuing further studies as well as a career in STEM.

The most clinically relevant finding is related to Research Objective 5. The current study found that there was a significant strong, positive, and linear relationship among Grades 7, 8 and 9 English Program students' perceptions of project-based learning and their interest in future STEM careers at St. Joseph Convent School, Bangkok, Thailand. A conclusion can be drawn that the students' positive perceptions of PBL correlated with their desire to pursue STEM studies and careers in the future.

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A COMPARATIVE STUDY OF GRADE 8 STUDENTS' INTEREST IN LEARNING CHINESE AND ACADEMIC ACHIEVEMENT UNDER COOPERATIVE TEACHING METHOD AND TRADITIONAL TEACHING METHOD AT LINCANG NO.1 MIDDLE SCHOOL, YUNNAN PROVINCE, CHINA

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Abstract: The purpose of this research was to compare the differences in Chinese learning interest and Chinese academic achievement between the students of the Grade 8 of Lincang No. 1 Middle School in the 2020-2021 school year under the cooperative teaching method and the traditional teaching method. The sample involved 63 students in two of the six classes in the Grade 8. They were divided into the cooperative teaching method group and the traditional teaching method group. Before the experiment, the study interest questionnaire (SIQ) and mid-term test scores were used as the pre-test to analyze and compare students' interest in Chinese learning and Chinese academic achievement, and the post-test used the the study interest questionnaire (SIQ) and the Chinese chapter test. The experiment period is 6 weeks and a total of 24 class hours. After the experiment, the post-test data is collected, and the dependent sample t-test and the independent sample t-test are used to analyze the data. The research results show that there was a significant difference between the pre-test and post-test in the Chinese learning interest and Chinese academic achievement of the Grade 8 students of Lincang No. 1 Middle School under the cooperative teaching method. There was a significant difference between students' interest in Chinese learning and Chinese academic achievement under the cooperative teaching method and those under the traditional teaching method.

Keywords: Cooperative Teaching Method, Traditional Teaching Method; Interest, Achievement, Chinese

Introduction

Due to the progress of society and the development of technology, many educators have abandoned traditional teaching methods and called for new teaching methods to cultivate students (Wang, 2016). Under the guidance of traditional teaching methods, students' learning styles are

characterized by passive, closed, receptive, and monotonous (Bo & Li, 2020). The emergence of cooperative teaching method breaks the previous teaching mode of classroom-centered, textbook-centered, and teacher-centered, and instead cultivates students' ability to explore, discover and solve problems independently.

Interest, as an intrinsic motivation for learning, is closely related to achievement goals and has an important impact on academic performance (Li, 2020). Through the comparative study of students' learning interest and academic achievement under different teaching methods, the influence of different teaching methods on students is obvious.

Research Objectives

1. To determine whether there is a significant difference in Grade 8 cooperative teaching method group students' interest in learning Chinese level between pre-test and post-test at Lincang No.1 Middle School, Yunnan Province, China.
2. To determine whether there is a significant difference in Grade 8 cooperative teaching method group students' academic achievement in Chinese language class level between pre-test and post-test at Lincang No.1 Middle School, Yunnan Province, China.
3. To determine whether there is a significant difference in Grade 8 traditional teaching method group students' interest in learning Chinese level between pre-test and post-test at Lincang No.1 Middle School, Yunnan Province, China.
4. To determine whether there is a significant difference in Grade 8 traditional teaching method group students' academic achievement in Chinese language class level between pre-test and post-test at Lincang No.1 Middle School, Yunnan Province, China.
5. To determine whether there is a significant difference gain in interest in learning Chinese between Grade 8 cooperative teaching method group students and control group students at Lincang No.1 Middle School, Yunnan Province, China.
6. To determine whether there is a significant difference gain in academic achievement in Chinese language class between Grade 8 cooperative teaching method group students and traditional teaching method group students at Lincang No.1 Middle School, Yunnan Province, China.

Literature Review

Gaspar (2020), in his comparative study on the academic achievement and motivation of students in grade 6 learning English in a school in Thailand, found that the post-test academic achievement of the students under the cooperative teaching method was significantly higher than those under the traditional teaching method.

Zhang (2018) found out after a four-month teaching experiment at Chiang Mai Vocational College in Thailand that the cooperative teaching method makes students more and more active in the classroom, able to actively answer questions and actively express their opinions. Students' interest in learning Chinese has increased, and more and more attention has been paid to Chinese.

Qi (2013) also found in the study of UN Language School in Dalian that the mean of the students in the Chinese academic achievement of the class using the cooperative teaching method has also been greatly improved. After the experiment, Mean increased by 5.8 compared to before the experiment.

A study result on Chinese language teaching in Phuket girls' high school from Wu (2019) shows that, compared with traditional teaching method, cooperative teaching method are more attractive to students, can capture students' interests, mobilize students' learning enthusiasm, and prevent students from being bored in the classroom.

Zhou (2012) also found in his comparative study that after using the cooperative teaching method and the traditional teaching method for experimental teaching, the students under the cooperative teaching method performed better in all aspects of testing, dictation, and homework than using the traditional teaching method.

Chen (2019) found in her research on junior high school Chinese learning interest that students with traditional teaching methods did not change their interest in learning Chinese reading after the experiment.

Methodology

1. Population and Sample

The target population of this study is a total 187 students in 6 classes in Grade 8 from Lincang No. 1 Middle School in the 2020-2021 academic year. The results of Class 5 and Class 6 are the closest, as can be clearly seen from the average grades of the 6-class midterm exams (pre-tests of academic achievement) (Table 1) in grade 8 and a comparison of each class using ANOVA. From Anova's conclusions on the comparison of the six classes (Table 2), it can be seen that there is no significant difference in the academic performance of the two classes. Combined with the results shown in the statistical analysis of SIQ pre-test scores (Table 3) in Grade 8 Class 5 and Class 6, there is no significant difference in Chinese learning interest between the two classes. Therefore, the researcher selected grades 8/5 and 8/6 as samples, and randomly set cooperative teaching method group and traditional teaching method group. 8/5 were the cooperative teaching method group, using the cooperative teaching method, and 8/6 were the traditional teaching method group, using the traditional teaching method.

Table 1: Descriptive Analysis of Grade 8 Mid-term test Scores of Chinese Class at Lincang No. 1 Middle School (Total 100)

Class	N	M	SD
Class 1	32	78.94	8.76
Class 2	33	82.42	9.78
Class 3	29	80.33	7.25
Class 4	30	81.50	6.99
Class 5	30	82.67	8.16
Class 6	33	82.70	8.41

Table 2: Anova Analysis of Grade 8 Mid-term test Scores of Chinese Class at Lincang No. 1 Middle School

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	362.79	5	72.76	1.05	.390
Within Groups	12507.57	181	69.10		
Total	12870.36	186			

Table 3: Descriptive Analysis of Grade 8/5 and Grade 8/6 Pre-test Scores of SIQ at Lincang No. 1 Middle School (Total 72)

Class	N	M	SD	df	t	p
Class 5	30	46.50	3.95	61	-.124	.902
Class 6	33	46.39	2.82			

2. Research Instrument

The results of the Chinese chapter test will be used in this research to measure the academic achievement of the Grade 8 students of Lincang No. 1 Middle School. The researcher designed this test based on the content of the course and the ability of the students in the Grade 8. The test consists of four parts: Part 1 is multiple choice training and contains 15 items (items 1-15); in this part, students need to read each question and option, and then choose the only correct option. The Part 2 is interpretive training, which contains 8 items (items 16-23). Compared with the first part, the difficulty of this part is improved, focusing on the students' language ability and extracurricular accumulation ability. The Part 3 is reading training, including 3 articles, a total of 12 items (items 24-35); this part requires students to complete the questions after carefully reading the text given, focusing on the students' material analysis

ability and appreciation ability. The Part 4 is writing training, a total of 1 item (item 36); this part is a compulsory question type for Chinese students in the Chinese language examination, focusing on the students' writing ability. The test was conducted after one month of teaching time, and all students will be set up separately to ensure the validity of the test.

Andreas Krapp and Ulrich Schiefele (1987) jointly developed the Study Interest Questionnaire (SIQ). The questionnaire has a total of 18 items. The purpose is to measure students' interest in a specific research field and to evaluate specific components of interest based on the "Educational Interest Theory". The 18 items in the SIQ are ranked from 1 (not at all true) to 4 (completely true) according to the Likert scale. The higher the student's score, the greater the interest in this field. The questionnaire will be carried out together with the Chinese chapter test. The purpose is to measure the interest of students in Chinese subjects under different teaching methods after 6 weeks of teaching practice.

3. Validity and Reliability

Regarding the validity of this test, the head of the Chinese teaching and research group of Lincang No. 1 Middle School recognized the validity of this test. Three Grade 8 teachers with rich experience in Chinese language education assessed that this test can capture the key points of the curriculum and meet the current needs of students. The reliability of this test is reflected in the selection of questions from the middle-term and final exams of eighth grade students across the country. The arrangement of the questions conforms to the setting of the regular examination questions of Lincang No. 1 Middle School, and the simple, common and difficult question types can be reasonably allocated. Therefore, it is reliable to use this test to measure the academic achievement of the Chinese chapter of Grade 8 students.

Since it was first described in 1987, the existing literature has shown the validity of the structure and content of SIQ, because the high score of SIQ is related to college students' qualitative knowledge, deep learning strategies and test scores. SIQ's largest confirmatory study involved 298 German university students. They completed the SIQ and carried out a 2-year follow-up study, and concluded that the test scores of 298 university students were related to the SIQ scores. It can be seen that SIQ is reliable for measuring the interest of eighth grade students in Chinese language subjects.

Results

1. Findings from Research Objective 1

According to the analysis results of the dependent samples t-test on the pre-test and the post-test of the cooperative teaching method group in Table 11, $t = -4.83$, $p < .001$. Therefore, there is a significant difference in Grade 8 cooperative teaching method group students' interest in learning Chinese level between pre-test and post-test at Lincang No. 1 Middle School, Yunnan Province, China.

Table 4: Paired Sample t-Test of Pre-test and Post-test of the SIQ Test Results of the Cooperative Teaching Method Group

Research instrument	N	M	SD	df	t	p
Pre-test	30	46.50	3.95	29	-4.83	<.001
Post-test	30	50.03	4.02			

2. Findings from Research Objective 2

According to the analysis results of the dependent samples t-test on the pre-test and the post-test of the cooperative teaching method group in Table 12, $t=-5.25$, $p<.001$. Therefore, there is a significant difference in Grade 8 cooperative teaching method group students' academic achievement in Chinese language class level between pre-test and post-test at Lincang No. 1 Middle School, Yunnan Province, China.

Table 5: Paired Sample t-Test of Pre-test and Post-test of the Chinese Chapter Test Results of the Cooperative Teaching Method Group

Research instrument	N	M	SD	df	t	p
Pre-test	30	82.67	8.16	29	-5.25	<.001
Post-test	30	88.47	4.71			

3. Findings from Research Objective 3

According to the analysis results of the dependent samples t-test on the pre-test and the post-test of the traditional teaching method group in Table 13 $t=.452$, $p=.654$. Therefore, there is no significant difference in Grade 8 traditional teaching method group students' interest in learning Chinese level between pre-test and post-test at Lincang No. 1 Middle School, Yunnan Province, China.

Table 6: Paired Sample t-Test of Pre-test and Post-test of the SIQ Test Results of the Traditional Teaching Method Group

Research instrument	N	M	SD	df	t	p
Pre-test	33	46.39	2.82	32	.452	.654
Post-test	33	46.15	4.00			

4. Findings from Research Objective 4

According to the analysis results of the dependent samples t-test on the pre-test and the post-test of the traditional teaching method group in Table 14, $t=-.263$, $p=.794$. Therefore, there is no significant difference in Grade 8 traditional teaching method group students' academic achievement in

Chinese language class level between pre-test and post-test at Lincang No. 1 Middle School, Yunnan Province, China.

Table 7: Paired Sample t-Test of Pre-test and Post-test of the Chinese Chapter Test Results of the Traditional Teaching Method Group

Research instrument	N	M	SD	df	t	p
Pre-test	33	82.70	8.41	32	-.263	.794
Post-test	33	82.94	6.40			

5. Findings from Research Objective 5

The analysis of the independent sample t-test results shown in Table 15 reveals that there is a significant difference between the cooperative teaching method and the traditional teaching method in the learning interest of Grade 8 students in Chinese language class, $t=-3.841$, $p<.001$. Therefore, under the two different teaching methods, there are significant differences in the learning interest of the Grade 8 students of Lincang No. 1 Middle School in Chinese language class (cooperative teaching method group $M = 50.03$, $SD = 4.02$; traditional teaching method group $M = 46.15$, $SD = 3.99$).

Table 8: Results of the Independent Samples t-Test Comparing Grade 8 Cooperative Teaching Method Group Students and Traditional Teaching Method Group Students' Gain in Interest for Learning Chinese in Chinese language class at Lincang No.1 Middle School, Yunnan Province, China.

Group	N	Mbefore	Mafter	Mgain	SD	df	t	p
Cooperative Teaching Method Group	330	46.50	50.03	3.53	4.02	61	-3.841	<.001
Traditional Teaching Method Group	333	46.40	46.15	-0.25	3.99			

6. Findings from Research Objective 6

The analysis of the independent sample t-test results shown in Table 16 reveals that there is a significant difference between the cooperative teaching method and the traditional teaching method in the academic achievement of Grade 8 students in Chinese language class, $t=-3.955$, $p<.001$. Therefore, under the two different teaching methods, there are significant differences in the academic achievement of the Grade 8 students of Lincang No. 1 Middle School in Chinese language class (cooperative teaching method group $M = 88.47$, $SD = 4.71$; traditional teaching method group $M = 0.24$, $SD = 6.33$).

Table 9: Results of the Independent Samples t-Test Comparing Grade 8 Cooperative Teaching Method Group Students and Traditional Teaching Method Group Students' Gain in Academic Achievement for Learning Chinese in Chinese language class at Lincang No.1 Middle School, Yunnan Province, China.

Group	N	Mbefore	Mafter	Mgain	SD	df	t	p
Cooperative Teaching Method Group	330	82.67	88.47	5.80	4.71	61	-3.955	<.001
Traditional Teaching Method Group	333	82.70	82.94	0.24	6.33			

Discussion

1. The Interest in Chinese Learning of the Grade 8 Students of Lincang No.1 Middle School Under the Cooperative Teaching Method

There is a significant difference between the pre-test and post-test level of Chinese learning interest in the cooperative teaching method group of Grade 8 students in Lincang No. 1 Middle School (using the cooperative teaching method). The mean of the post-test is 3.53 higher than that of the pre-test, indicating that the students' Chinese learning interest after the experiment has increased significantly.

This may be because the cooperative teaching method can better mobilize students' learning enthusiasm. In the classroom, students no longer just listen to the teacher and follow the teacher's instructions, but clearly know what they should do in cooperation. On the basis of independent thinking, students continuously improve their ideas through cooperation, and demonstrate and discuss with the whole class in the presentation. Students' participation in the classroom has increased, their initiative has increased, and their interest in learning Chinese has also increased.

According to previous research, Ou (2018) found in its application of cooperative teaching method in high school Chinese that the atmosphere of cooperative classroom is more active than traditional classroom, and students' enthusiasm and creativity have been significantly improved. In this process, the goal of continuously cultivating students' scientific spirit is achieved. This is the same as the findings of this study.

2. The Academic Achievement in Chinese Language Class of the Grade 8 Students of Lincang No. 1 Middle School Under the Cooperative Teaching Method

There is a significant difference between the pre-test and post-test of Chinese academic achievement in the cooperative teaching method group of Grade 8 students in Lincang No. 1 Middle School (using cooperative teaching method). The mean of the post-test is 5.8 higher than the pre-test.

It shows that after using the cooperative teaching method experiment, the Chinese academic achievement level of the Grade 8 students has been significantly improved.

This may be due to the increased participation of students in the classroom under the cooperative teaching method. Under the leadership of other members of the group, most students can think and discuss according to the teacher's instructions and inquiry questions, and receive corrections and supplements from the teacher after the presentation. In the mutual help and mutual assistance between groups, students can deepen their memory and understanding of key knowledge and no need to memorize by rote.

According to some previous researches on student academic achievement under cooperative teaching method, Zhang (2018) found in the study of Chiang Mai Vocational College in Thailand that the Chinese academic achievement of students under the cooperative teaching method was 3.74 points higher than that before the experiment. This finding is consistent with this study.

3. The Interest in Chinese Learning of the Grade 8 Students of Lincang No.1 Middle School Under the Traditional Teaching Method

There is no significant difference between the pre-test and post-test level of Chinese learning interest in the traditional teaching method group of Grade 8 students in Lincang No. 1 Middle School (using the traditional teaching method). It shows that after using the traditional teaching method experiment, the level of interest in Chinese learning has not been significantly improved compared to before the experiment.

This may be because the traditional teaching method is limited to the teacher's lecture and the student's listening mode. The classroom is centered on the teacher and revolves around the teacher. Therefore, students are easily distracted in the classroom, unable to concentrate on the classroom for a long time, and are also lost interest in learning.

Chen (2020) found in his study on the learning attitude of primary 1 students in an international school in Thailand that under the traditional teaching method, students maintain a negative attitude towards Chinese lessons and students are not interested in learning, which is consistent with the results of this research.

4. The Academic Achievement in Chinese Language Class of the Grade 8 Students of Lincang No. 1 Middle School Under the Traditional Teaching Method

There is no significant difference between the pre-test and post-test level of Chinese academic achievement in the traditional teaching method group of Grade 8 students in Lincang No. 1 Middle School (using the traditional teaching method). It shows that after using the traditional teaching method

experiment, the level of Chinese academic achievement has not been significantly improved compared to before the experiment.

This may be because under the traditional teaching method, students' memory of knowledge only stays on the basis of rote memorization, the teacher is responsible for speaking, outline the key points, and the students are responsible for listening and memorizing. Students' memory of knowledge weakens over time, and their grasp of knowledge in exams will also decrease. Therefore, there is no significant difference in the academic achievement of the students before and after the experiment.

According to previous research, Qi (2013) found after experimental teaching that using traditional teaching methods, students' academic achievement basically remained unchanged at the original level, and the improvement was not obvious before and after the experiment. This is consistent with the results of this study.

5. Comparing the Interest in Chinese Learning of the Grade 8 Students of Lincang No.1 Middle School According to Different Teaching Methods

According to the survey data of this research, the level of interest in Chinese learning of the Grade 8 students of Lincang No.1 Middle School before and after the experiment is higher under the cooperative teaching method than under the traditional teaching method.

The researcher believe that this may be due to the higher participation of students in the classroom under the cooperative teaching method compared with the traditional teaching method, and cooperative learning can allow students to maintain a higher degree of classroom concentration. The presentation after cooperation and the competition between groups can make the classroom more active, and students can enjoy the atmosphere of the classroom more.

According to previous research, Zhang (2018) found in his survey of Chiang Mai Vocational College in Thailand that students' enthusiasm for learning Chinese under the cooperative teaching method is higher than that of students under the traditional teaching method. Under the cooperative teaching method, students feel more interest about Chinese and the classroom atmosphere is more active. This is consistent with the results of this study. Zhou (2012) also found through questionnaires in his research that under the cooperative teaching method, the students' interest level in learning was significantly higher than that of the control group (using traditional teaching methods), which mobilized the students' learning enthusiasm.

The results of these previous studies are similar to this study. The students' interest level in learning under the cooperative teaching method is significantly higher than that under the traditional teaching method. Comparing the two teaching methods, cooperative teaching can more invigorate the classroom atmosphere, attract students, and enable students to better participate in the classroom.

Students are exposed to the knowledge they are interested in during their study and are more looking forward to taking Chinese lessons.

6. Comparing the Academic Achievement in Chinese Language Class of the Grade 8 Students of Lincang No.1 Middle School According to Different Teaching Methods

The results of this study show that the level of Chinese academic achievement of the Grade 8 students of Lincang No. 1 Middle School under the cooperative teaching method is higher than that under the traditional teaching method.

The researcher believe that this may be because the cooperative teaching method improves students' classroom participation. Unlike traditional teaching method that simply listen to and memorize knowledge, students have more thinking links. Setting up inquiry questions for discussion can enable students to better grasp key knowledge and deepen the memory of knowledge in cooperation, so as to have better feedback in the exam.

According to previous research, Zhang (2018) found in his research on Chiang Mai Vocational College in Thailand that the usual grades, mid-term grades and final grades of the cooperative teaching method after the experiment have increased significantly. Compared with the pre-experiment, under the traditional teaching method, the students' usual grades dropped slightly, and the mid-term grades and final grades were not significantly different from those before the experiment. A research result from Qi (2013) shows that there are significant differences before and after the experiment of student academic achievement under the cooperative teaching method, $M_{pre}=82.85$, $M_{post}=88.65$. Mean is significantly improved. Under the traditional teaching method, the student's academic achievement level basically maintains the original level before and after the experiment, $M_{pre}=81.20$, $M_{post}=82.20$.

The results of these previous studies are similar to this study. The students' academic achievement level has been significantly improved after the cooperative teaching experiment. The cooperative teaching method can better grasp the key points of knowledge. Inquiry and discussion can allow students to think about and exchange knowledge, and it is easier to memorize knowledge in teachers' supplements and summaries. Compared with the single teaching mode and boring classroom atmosphere under the traditional teaching method, students can better engage in the classroom and mobilize students' learning initiative.

Conclusion

According to the data analysis results of dependent samples t-test, the cooperative teaching method group of Grade 8 students in Lincang No. 1 Middle School showed that there was a significant difference in the pre-test and post-test of Chinese learning interest. This result can be explained as a significant difference in the level of interest in Chinese learning among the Grade 8 students of Lincang

No. 1 Middle School after using the cooperative teaching method for 6 weeks (24 periods). This result indicates that under the cooperative teaching method, students' interest level in learning Chinese can increase significantly.

According to the data analysis results of dependent samples t-test, there was a significant difference between the pre-test and post-test of the Chinese academic achievement of the cooperative teaching method group of Grade 8 students in Lincang No. 1 Middle School. This result can be explained as a significant difference in the level of Chinese academic achievement of the Grade 8 students in Lincang No. 1 Middle School after using the cooperative teaching method for 6 weeks (24 periods). Under the cooperative teaching method, students' Chinese academic achievement level can be significantly improved.

According to the data analysis results of dependent samples t-test, the traditional teaching method group of Grade 8 students in Lincang No. 1 Middle School showed that there was no significant difference in the pre-test and post-test of Chinese learning interest. This result can be explained by the fact that there was no significant difference in the level of interest in Chinese learning among the Grade 8 students of Lincang No. 1 Middle School after using the traditional teaching method for 6 weeks (24 periods). Under the traditional teaching method, the level of students' interest in Chinese learning has not been significantly improved compared to before the experiment.

According to the data analysis results of dependent samples t-test, there was no significant difference between the pre-test and post-test of the Chinese academic achievement of the traditional teaching method group of Grade 8 students in Lincang No. 1 Middle School. This result can be explained by the fact that there was no significant difference in the level of Chinese academic achievement among the Grade 8 students of Lincang No. 1 Middle School after using the traditional teaching method for 6 weeks (24 periods). Under the traditional teaching method, the level of students' Chinese academic achievement has not been significantly improved compared to before the experiment.

According to the data analysis results of independent samples t-test, there was a significant difference gain in interest in learning Chinese between Grade 8 students are taught under cooperative teaching method and traditional teaching method in Lincang No. 1 Middle School. This result can be explained as a significant difference between the Grade 8 students' interest in Chinese learning through 6 weeks (24 periods) of experimental teaching under the cooperative teaching method and the traditional teaching method. The scores obtained by the students under the cooperative teaching method in the Interest Study Questionnaire (SIQ) are significantly higher than those of the students are taught under the traditional teaching method.

According to the data analysis results of independent samples t-test, there was a significant difference gain in academic achievement in Chinese language class between Grade 8 students are taught under cooperative teaching method and traditional teaching method in Lincang No. 1 Middle School.

This result can be explained as a significant difference between the Grade 8 students academic achievement in Chinese language class through 6 weeks (24 periods) of experimental teaching under the cooperative teaching method and the traditional teaching method. The scores obtained by the students under the cooperative teaching method in the Chinese Chapter Test are significantly higher than those of the students are taught under the traditional teaching method.

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A CORRELATIONAL-COMPARATIVE STUDY OF GRADE 12 STUDENTS' USE OF ENGLISH LEARNING STRATEGIES AND ENGLISH ACADEMIC ACHIEVEMENT FOR LEARNING ENGLISH AS A FOREIGN LANGUAGE ACCORDING TO GENDER AT A PUBLIC HIGH SCHOOL IN YUNNAN PROVINCE, CHINA

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Abstract: The purposes of this study were as follows: 1) To identify the level of English learning strategies and English academic achievement of Grade 12 students using mean and standard deviation. 2) To determine the relationship between the use of English learning strategies and English academic achievement for learning English as a foreign language according to gender of Grade 12 students using Pearson's correlation coefficient. 3) To compare the use of English learning strategies for learning English as a foreign language according to the gender of Grade 12 students using 2-tailed *t*-test. 4) To compare the English academic achievement for learning English as a foreign language according to the gender of Grade 12 students using 2-tailed *t*-test. A total of 518 Grade 12 students of target school participated in the study. The study used the Oxford's Strategy Inventory for Language Learning (SILL) questionnaire to determine the English learning strategies of 12 Grade students. To determine Student's English academic achievement the National College Entrance of English test was used. The findings of the study were as follows: The level of the Grade 12 students' English learning strategies of was medium usage and the level of the Grade 12 students' English academic achievement was fairly good. The data from SILL indicated that there was a significant relationship between the use of English learning strategies and English academic achievement of Grade 12 students according to gender. Moreover, the findings indicate that there was a significant difference in the use of English learning strategies for learning English as a foreign language according to the gender of Grade 12. Recommendations for teachers, school administrators and future researchers are provided in the study.

Keywords: Academic Achievement, English as a Foreign Language, Learning Strategies, Gender, Learning English as a Foreign Language, a Public High School in Yunnan, China

Introduction

China is one of the countries covered by a giant population in the world, the needs of English language skill is increasing. In China, English as a foreign language (EFL) has been conducted in education more than one century. English as one of the three major subjects of senior high school, it plays an essential role in the study and the high school students always pay much attention to it. However, students often encounter some obstacles during studying English, since the students are confronting with differences in cultural background and lacking language environment. Most students of senior high school not only have low interests, but also have problems in English learning.

There are no doubts that many of experts and teachers who are involved in foreign language paid a lot of time and efforts on searching for effective methods to teach English, but with little success. English learning is a complex process, the factors influencing English learning are various as well. In the early 1980s, a lot of research on learning strategies have been done from several aspects by experts and scholars. According to Wen (1996), there is no significant correlation between gender and academic performance. However, Wu (1993) stated that females are good at using English learning strategies much better than males. There is currently no unified conclusion on this issue. In recent years, more and more researchers focus on the learners' individual factors to explore that how to improve English language learning. The researchers paid much attention to the language learners' differences in the learning concept, learning motivation, learning strategies, personality, intelligence, gender etc. In these non-intelligence factors, learning strategies is believed to be one of the most important factors of affecting foreign language learning, which has been the research subjects for educators and psychologists. (Oxford, 1989; Ellis, 1999; Cohen, 2000; O' Malley & Chamot, 2001; Wen, 2003).

The National English Curriculum Standard (2017) in China stated that teachers should develop students' English disciplinary-based core qualities, which consists of language ability, cultural awareness, moral quality and learning ability. The public high school also put much attention on the students' learning. Regarding what factors may affect students English learning and how those influence students' learning achievement. As to the importance of gender variable, although, many researchers hold the opinion that it is an inessential factor in language learning. But it still being a factor that possibly affect learning, as Vandergrift (1996) admitted that gender could possibly be a factor on the employing of learning strategy. Oxford (1989) stated that gender and as determinants of strategy use. Obviously, gender has been explored as one of factors that might affect the students' English proficiency.

Research Objectives

There are eight research objectives:

1. To determine the level of the use of English learning strategies for learning English as a

- foreign language of male students of Grade 12 at the public high school in Yunnan province, China.
2. To determine the level of the use of English learning strategies for learning English as a foreign language of female students of Grade 12 at the public high school in Yunnan province, China.
 3. To determine the level of English academic achievement for learning English as a foreign language of male students of Grade 12 at the public high school in Yunnan province, China.
 4. To determine the level of English academic achievement for learning English as a foreign language of female students of Grade 12 at the public high school in Yunnan province, China.
 5. To determine whether there is a significant relationship between the use of English learning strategies and English academic achievement for learning English as a foreign language according to the male students of Grade 12 at the public high school in Yunnan province, China.
 6. To determine whether there is a significant relationship between the use of English learning strategies and English academic achievement for learning English as a foreign language according to female students of Grade 12 at the public high school in Yunnan province, China.
 7. To determine if there is a significant difference in the use of English learning strategies for learning English as a foreign language according to the gender of Grade 12 students at the public high school in Yunnan province, China.
 8. To determine whether there is a significant difference in English academic achievement for learning English as a foreign language according to the gender for Grade 12 students at the public high school in Yunnan province, China.

Literature Review

Language Learning Strategies

Learning strategies that language learners employ in the process of learning a new language have been identified and described by the researchers. As a result, these strategies have been classified by many professional experts in the area of language learning (Oxford, 1990; O'Malley & Chamot, 1990; Stern, 1992; Ellis, 1994). This progress not only helped categorize strategies and link them to a variety of cognitive processing phases during language learning, but also assisted in creating instructional frameworks (Pezhman, 2012). Below Rubin's (1987), Oxford's (1990), O'Malley's (1985), and Stern's (1992) categories of language learning strategies will be handled.

O'Malley (1985) divided language learning strategies into three main categories. Metacognitive, Cognitive, and Social or Affective strategies. According to O'Malley, Metacognitive strategies is as a term to express executive function, strategies which require planning for learning, thinking about the learning process. Cognitive strategies, it has been stated that cognitive strategies involve the manipulation or transformation of the material to be learned, such as resourcing, repetition, grouping, deduction, imagery, auditory representation, key word method, elaboration, transfer, inferencing, note taking, summarizing, recombination and translation and inferencing are among the most important cognitive strategies. And Social or affective strategies have close relationship with social-mediating activity and interacting with others. Social or affective strategies mainly involve the learner in communicative interaction with another person, for example, when collaborating with peers in problem-solving exercises (Brown, 2007).

Rubin (1987) divided three types of strategies by learners that contribute directly or indirectly to language learning. These are learning strategies, communication strategies and social strategies. Learning strategies, which include cognitive learning strategies and metacognitive learning strategies contribute directly to the development of the language system constructed by the learner. Communication strategies are less directly related to language learning since their focus is on the process of participating in a conversation and getting meaning across or clarifying what the speaker intended. Communication strategies are used by speakers when faced with some difficulty due to the fact that their communication ends outrun their communication means or when confronted with misunderstanding by a co-speaker. Social strategies are those activities learners engage in which afford them opportunities to be exposed to and practice their knowledge.

Oxford (1990) defined the aim of language learning strategies as being oriented towards the development of communicative competence. Oxford divides language learning strategies into two main classes, direct and indirect, which are further subdivided into six groups. Direct strategies, which involve the new language directly, it consists of memory, cognitive and compensation strategies. Oxford (1990) stated that all of the direct strategies require mental processing of the language. Memory strategies are those used for storage of information, cognitive strategies are the mental strategies learners use to make sense of their learning, and compensation strategies help learners to overcome knowledge gaps to continue the communication. Indirect strategies include metacognitive, affective and social strategies. those strategies provide indirect support for language learning by employing different strategies for example, focusing, arranging, evaluating, seeking opportunities, and lowering anxiety (Oxford,1990). In Oxford's system, metacognitive strategies help learners to regulate their learning. Affective strategies are concerned with the learner's emotional requirements such as confidence, while social strategies lead to increased interaction with the target language. Language is a form of social behavior and learning it involves other people, and it is extremely important that learners employ

appropriate social strategies in this process (Oxford,1990).

Stern (1992) stated that there are five main language learning strategies: management and planning strategies, cognitive strategies, communicative experiential strategies, interpersonal strategies and affective strategies. Management and planning strategies are related with the learner's intention to direct his own learning. A learner can take charge of the development of his own program when he is helped by a teacher whose role is that of an adviser and resource person. Cognitive strategies are steps or operations used in learning or problem solving that require direct analysis, transformation, or synthesis of learning materials. Stern's cognitive strategies are like those of Rubin's, in which clarification / verification, guessing inductive inference, deductive reasoning, practice, memorization, monitoring is concluded. Communicative-experiential strategies are techniques used by learners so as to keep a conversation going, such as circumlocution, gesturing, paraphrase, or asking for repetition and explanation. The purpose of using these techniques is to avoid interrupting the flow of communication (Stern,1992). Interpersonal strategies refer to learners who should contact with native speakers and cooperate with them. Learners must become acquainted with the target culture. Affective strategies are strategies language learners employ to handle their emotional problems. Good language learners try to create associations of positive affect towards the foreign language and its speakers as well as towards the learning activities involved.

The above taxonomies are widely accepted and used in have been discussed by many researchers. However, in the current study the researcher will employ Oxford's categorizing of strategies as a criterion. As Ellis (1994) pointed probably Oxford provided the most comprehensive classification of learning strategies to date. The former classification focused strategies that directly involve the target language in the sense that they require mental processing of the language (Oxford,1990). While the latter it provided indirect support for language learning through focusing, planning, evaluating, seeking opportunities, controlling anxiety, increasing cooperation and empathy and other means (Oxford,1990).

Conceptual Framework

The study aims to find out the relationship and difference of the Grade 12 students' use of English language learning strategies and English academic achievement between gender of the target school. In this study, there are three main variables. Among them, gender is an independent variable, English learning strategies and English academic achievement as dependent variables. Figure1 shows the conceptual framework.

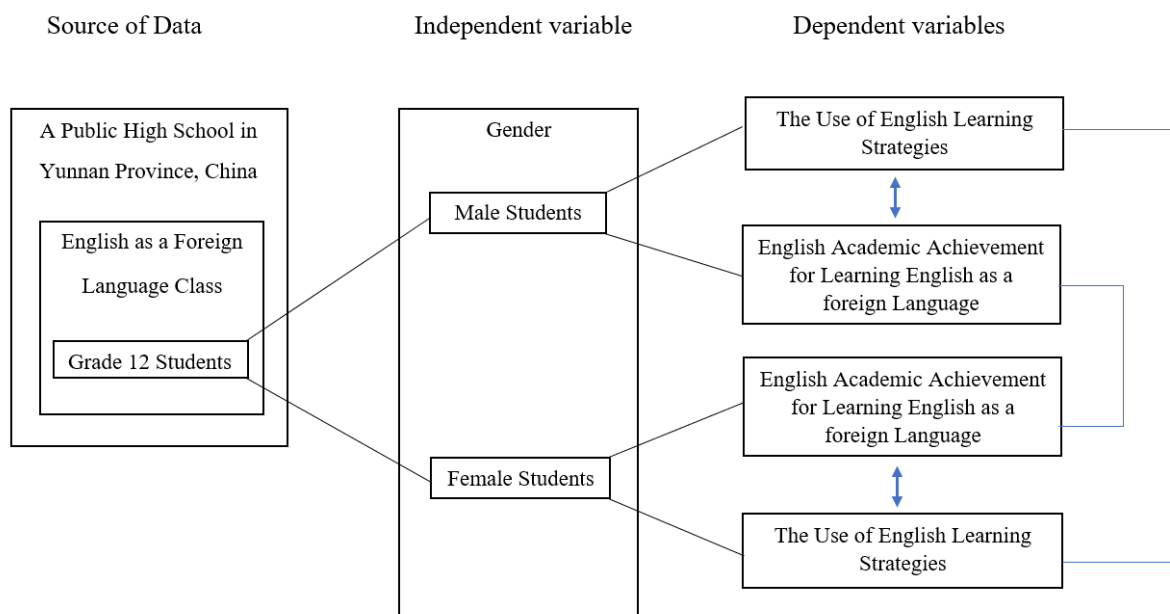


Figure 1. Conceptual Framework of This Study

Methodology

The research was a correlational-comparative study that used two instruments – SILL questionnaire and English language test.

Population

The population of the study was the students from Grade 12 students who are studying at the public high school in Yunnan province, China.

Sample

The sample group of the study was 518 students who enrolled in academic year 2020-2021 in Grade 12 at the public high school in Yunnan province, China. Table 1 illustrates the sample size of the study.

Research Instruments

In this study, two research instruments were used:

- 1) the Strategy Inventory for Language Learning Survey (SILL) questionnaire;
- 2) the National College Entrance Examination (NCEE).

The Strategy Inventory for Language Learning Survey (SILL) questionnaire consists of two sections. First, the basic information of the respondents to check gender and grades. Second, use of English language learning strategies. The questionnaire is comprised of 50 items. It consists of six parts,

according to Oxford's classifications (1990). Part I consists of 9 items which measured memory strategies in learning EFL adapted from, Part II consist of 14 items which is used to measure cognitive learning strategies, Part III consists of 6 items which is used to measure compensation strategies, Part IV consists of 9, which is to used measure metacognitive strategies, Part V consists of 6 items, which is used to measure affective strategies, Part VI consists of 6 items, which is used to measure social strategies. The following Table 2 describes the subscales and numbers of items in SILL.

Validity and Reliability

The SILL Questionnaire which was developed by Oxford (1990) has been widely used in the studies of foreign language learning field, especially in the countries where learning English as a foreign language. According to Lai (2005), the SILL has good predictive validity and is a highly reliable instrument to use for studies of foreign language learning strategies. Oxford (1999) reported the range of Cronbach alpha coefficients of internal consistency of the SILL questionnaire as .89 to .90 in English and the other language versions, the SILL questionnaire was translated into many languages, such as Korean, Japanese as well as Chinese. In this study, the translation approval for of Chinese not provided by the researcher, since the original Chinese translation vision was used directly from recent previous researchers. The Chinese vision was accepted by many researchers in China. Moreover, A recent Alpha values of the six categories of learning strategies alpha test presented below, which reported by Ranjeeva R et al. (2020). The detail is shown Table 1.

Table 1: The Cronbach's Alpha test of Strategy Inventory for Language Learning Questionnaire

	Numbers of items	Cronbach's Alpha
SILL (overall)	50	0.89
Memory strategies	9	0.65
Cognitive strategies	14	0.74
Compensation strategies	6	0.65
Metacognitive strategies	9	0.84
Affective strategies	6	0.60
Social strategies	6	0.72

National College Entrance Examination of English (NCEE)

The National College Entrance Examination is the largest standardized educational system in China. The examination items are based on criteria of English subject test made by NEEA. The test has been frequently administered through the years as an assessment method by the NEEA.

Results

According to the research objectives above, the main findings presented below.

Research Objective 1

The overall use of English learning strategies for learning English as a foreign language of male students of Grade 12 at the public high school was medium.

The use memory strategies of male students were medium overall. One item had very low usage that was I think of relationships between what I already know and new things I learn in English.

The use of cognitive strategies of male students was medium overall.

The use of compensation strategies of male students was medium overall.

The use of metacognitive strategies of male students was medium overall.

The use of affective strategies of male students was medium overall.

The use of social strategies of male students was medium overall. Below Table 2 shows the summary of the use of learning strategies of male students.

Table 2: Mean Scores, Standard Deviations and Interpretations of the Use of the English Learning Strategies for Learning English as a Foreign Language of Male Students of Grade 12

Learning strategies	Male		Interpretation
	<i>M</i>	<i>SD</i>	
Memory strategies	2.79	.84	Medium
Cognitive strategies	3.04	.92	Medium
Compensation strategies	2.93	1.00	Medium
Metacognitive strategies	3.06	.92	Medium
Affective strategies	3.01	.95	Medium
Social strategies	2.98	1.00	Medium
Overall	2.97	.90	Medium

Research Objective 2

The overall use of English learning strategies for learning English as a foreign language of female students of Grade 12 at the public high school was medium.

The use memory strategies of female students were medium overall. One item had low usage that was I think of relationships between what I already know and new things I learn in English. Another item I remember new English words or phrases by remembering their location on the page, on the board, or on a street sign presented high usage.

The use of cognitive strategies of female students was medium overall. There were three items presented high usage, there are: I try to talk like native English speakers. I use the English words I know

in different ways and I read for pleasure in English.

The use of compensation strategies of female students was medium overall. One item had high usage that was I try to guess what the other person will say next in English.

The use of metacognitive strategies of female students was medium overall. Two items had high usage that were I pay attention when someone is speaking English and I look for opportunities to read as much as possible in English.

The use of affective strategies of female students was medium overall.

The use of social strategies of female students was medium overall. The Table 3 presents the summary of the use of learning strategies of female students.

Table 3: Mean Scores, Standard Deviations and Interpretations of the Use of the English Learning Strategies for Learning English as a Foreign Language of Female Students of Grade 12

Learning strategies	Female		Interpretation
	<i>M</i>	<i>SD</i>	
Memory strategies	3.18	.92	Medium
Cognitive strategies	3.32	.98	Medium
Compensation strategies	3.26	1.04	Medium
Metacognitive strategies	3.34	.96	Medium
Affective strategies	3.33	1.01	Medium
Social strategies	3.28	1.02	Medium
Overall	3.29	.95	Medium

Research objective 3

The level of English academic achievement for learning English as a foreign language of male students of Grade 12 at the public high school in Yunnan province, China was interpreted fairly good. Table 4 display the detail.

Table 4: Mean Scores, Standard Deviations and Interpretations of English Academic Achievement for Learning English as a Foreign Language of Male Students of Grade 12

Variable	Male		Interpretation
	<i>M</i>	<i>SD</i>	
Student English Academic Achievement	106.44	18.08	Fairly good

Research objective 4

The level of English as a foreign language of female students of Grade 12 at the public high school in Yunnan province, China was interpreted fairly good as well. The following Table 5 presents the detail.

Table 5: Mean Scores, Standard Deviations and Interpretations of English Academic Achievement for Learning English as a Foreign Language of Female Students of Grade 12

Variable	Female		
	<i>M</i>	<i>SD</i>	Interpretation
Student English Academic Achievement	113.85	19.40	Fairly good

Research objective 5

The finding indicated that it has significant relationship between the use of English learning strategies and English academic achievement for learning English as a foreign language according to male students of Grade 12 at the public high school in Yunnan province, China at a significance level of .05. Table 6 shows the detail.

Table 6: Results of Correlations Between the Use of English Learning Strategies and English Academic Achievement for Learning English as a Foreign Language of Male Students of Grade 12

		English learning strategies
Student English Academic Achievement	Pearson Correlation	.532**
	Sig. (2-tailed)	.000
	N	259

** $p < .001$.

Research objective 6

The finding indicated that it has significant relationship between the use of English learning strategies and English academic achievement for learning English as a foreign language according to female students of Grade 12 at the public high school in Yunnan province, China at a significance level of .05. As below Table 3 shows.

Table 7: Results of Correlations Between the Use of English Learning Strategies and English Academic Achievement for Learning English as a Foreign Language of Female Students of Grade 12

		English learning strategies
Student English Academic Achievement	Pearson Correlation	.586** (< .001)
	Sig. (2-tailed)	.000
	N	259

** $p < .001$.

Research objective 7

The finding indicated that there was a significant difference in the use of English learning

strategies for learning English as a foreign language according to the gender of Grade 12 students at the public high school in Yunnan province, China. See the below Table 4 shows.

Table 8: Comparison of the Mean Scores and Standard Deviations of English Learning Strategies for Learning English as a Foreign Language of Grade 12 students According to Gender

Gender	n	M	SD	t
Male	259	2.97	.90	-3.868
Female	259	3.29	.95	

Research objective 8

There was a significant difference in English academic achievement for learning English as a foreign language according to the gender of Grade 12 students at the public high school in Yunnan province, China at a significance level of .05. See the below table 5 shows.

Table 9: Comparison of the Mean Scores and Standard Deviations of English Academic Achievement for Learning English as a Foreign Language of Grade 12 students According to Gender

Gender	n	M	SD	t
Male	259	106.44	18.08	-4.498
Female	259	113.85	19.04	

Discussion

The use of the English learning strategies of both male and female students was medium overall. However, the mean of use of the English learning strategies of female students was higher than male students. In addition, in some items, item 11, 13, 16 which are belong to cognitive strategies, the finding shows high usage of female students. In item 32, 36 both belong to metacognitive show that high usage of female students. The finding indicates that the female students were more often use English learning strategies. Similarly, the finding of this study match with the previous study done Liang and Yan (2018). They conducted a comparative study of Grade 12 students' use of direct and indirect second language learning strategies according to their gender and classes at Luchuan high school, Guangxi, China. In the study, it showed that the overall level of the use of English learning strategies in both direct and indirect was medium. The researchers reasoned that the English teaching model still keep traditional way at the target school and assumed that the students even have no learning strategies use in learning, English learning under traditional method which as teacher centered, caused the situation that use of English learning strategies is medium as a whole. In addition, another study conducted by Xiao & Lynch (2017), which is on the indirect language learning strategies for learning Chinese as a foreign language used by year 7 to year 10 students at Ascot International School, in Thailand. In the study, the overall

indirect learning strategies was medium. However, the metacognitive and the social language learning strategies for learning Chinese as a foreign language were high.

For the student's English academic achievement, the finding indicated that the level of male and female was different. The female students' academic achievement was tended to higher than male students.

For the relationship between the use of English learning strategies and English academic achievement for learning English as a foreign language according to gender of the respondents. In this study, a significant correlation has been discovered in both male and female students. Similarly, Yang (2013) conducted a study of language learning strategies used by students learning Korean as a foreign language at Wat Makutkasat secondary school of Thailand. The result has in common with the current study. It reported that there was a significant relationship between the use of language learning strategies and student achievement in MWMSS. According to Liu's study (2006), it was found that the use of learning strategies, student's grades and gender are all related. She also mentioned that the excellent students are better at using a variety of learning strategies to improve learning, and the students with poor grades hardly not used learning strategies. The findings in the area of language learning strategies have repeatedly demonstrated that the use of language learning strategies leads to better proficiency or achievement in mastering the target language (Lee, 2003; O'Malley & Chamot, 1990; Rahimi, 2008; Griffiths, 2003; Hong, 2006; Oxford, 1993). Similar conclusion has been reached in another study (Green & Oxford, 1995), it reported that most of successful students in language learning used more often various learning strategies. In addition, in a study by Griffiths (2003), has been discovered a strong positive correlation between learning strategy use and language achievement. The above findings from previous studies have revealed that there is a significant between English learning strategies and English academic achievement.

For the difference between the use of English learning strategies for learning English as a foreign language according to gender. There was significantly difference has found of English learning strategies English academic achievement according to gender, the result showed that the the use of English learning strategies of female students was more often in some items. It was expected based on previous studies and constructed on available literature Yang (2013). In common with the current study. The study presented that the male student has less use of language learning strategies than female usage. In addition, Green & Oxford (1995) conducted a study in the University of Puerto Rico, it presented female tend to use more learning strategies than male. Moreover, Macaro (2006) stated that female tend to use language learning strategies more than male as well. Moreover, Liu (2006) believed that the female students generally more often used learning strategies to help to learn.

Conclusion

The research examines the relationship and difference between English learning strategies and English academic achievement according to gender. The researcher used SILL (Oxford, 1990) questionnaire to measure the participants' use of the learning strategies and an exam made by NCEE used to measure the students' English academic achievement. According to the findings. The students' use of learning strategies of both male and female students was medium. A significant relationship between the use of learning strategies and English academic achievement according to both male and female students has discovered by the researcher. It also has found that there was a significant difference of the use of learning strategies and English academic achievement according to both male and female students. Based on the findings of the research, the researcher provided some suggestions to the different groups. It was expected that the study could be helpful in the future language learning and teaching.

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A LEADERSHIP STRATEGY FOR INTERNATIONALIZATION OF HIGHER EDUCATION IN CHINA

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Abstract: This paper firstly analyzed the need and trends in terms of internationalization of higher education in China context. As the demand for an internationalization of higher education developed rapidly, it required Chinese higher education institutions to be fully aware and adapt themselves as quickly as they can to fit the globalized world. In this regard, this paper reviewed from the perspective of leadership development, proposed a global leadership strategy for better internationalization of Chinese higher education Institutions with the following steps: 1) set up specialized managers and leaders to devote themselves to the promotion process of internationalization of education of university; 2) establishing a share management mechanism 3) ensure adequate staffing; 4) expand the scale of the international network and so on.

Keywords: Global Leadership, Internationalization of Higher Education, Chinese Higher Education Institutions.

Introduction

In the context of the integration of the world economy, no matter how it is trade, science, technology, or culture, various industries are gradually breaking the isolation and moving toward globalization. Education is an important issue related to the prosperity and development of a society and even a country. Colleges and universities, not only need to constantly explore and improve the education model for innovation and reform, but also need to invest in developing more activities and strategies to internationalize education (Alpenidze, 2015). Promoting the internationalization of education of university, not only help gain advanced knowledge and culture in the global education of university market but also attract international talents and promote our own culture, providing considerable advantages in participating in international exchanges and competitions (Bird, 2013).

Unbalanced education development of Chinese higher education institutions, the characteristics of the development are not synchronized. Currently, more Chinese colleges and universities start to recruit international students around the world, to raise public awareness of the school and the level of

internationalization. Meanwhile, more Chinese teachers are sent abroad by Chinese higher education institutions for training and study Tours. As a result, the development of Chinese colleges and universities is divided into two ways. Well-known Chinese colleges and universities are easy to recruit international students and cultivate students to study abroad. However, it is difficult for some universities that are not so famous to recruit international students. How to solve this problem and reduce the gap in the level of international development of universities becomes an urgent task for various Chinese higher education institutions.

The replacement of science and technology and the change of world development trend make more and more national and local governments begin to attach importance to the internationalization of colleges and universities. In the past, a study pointed out that in today's world, countries are gradually attaching importance to the strategic development of educational internationalization of their colleges and universities in terms of cooperation capacity and employment (Bird & Osland, 2004).

In a big country like China, some first-tier cities have already taken this step towards internationalization. From their successful experience and achievements, it is undoubtedly the general trend to effectively internationalize colleges and universities. Therefore, Hebei province, as an important province in China, should grasp the opportunity to promote the internationalization of education of the university.

An urgent problem to be solved is that China is a vast country with 34 provincial-level administrative regions, so the internationalization level of education of universities varies with the level of regional development (Wadhwa, 2016). There are many colleges and universities in China. Most of them have international education programs in more developed areas, such as academic discussions with foreign institutions and student exchanges (Yeung & Ready, 1995). However, due to cultural differences and unbalanced development among regions, the quality of education of universities in some backward regions is much lower than that in other developed regions, not to mention the establishment of relevant work for the internationalization of education of university in these institutions (Wadhwa, 2016).

Chinese colleges and universities are aware of this, in recent years of development, more and more Chinese higher education institutions try their best to enhance their visibility in the world through the trend of internationalization, promote themselves and attract more excellent student resources in the world. Therefore, this paper tries to propose a global leadership strategy for better internationalization of Chinese higher education Institutions based on the analysis of the demands and trends of internationalization in China context.

1. Internationalization

1.1 The Concept of Internationalization

UNESCO (2006) has defined internationalization as “It is Higher education that takes place in situations where the teacher, student, program, institution or provider and course materials cross-national jurisdictional borders” (p26). This kind of global education may visibly or invisibly influence the public or private universities or colleges in many countries to transfer themselves in many ways, including in the curriculum, teaching, and learning methods, recruitment, management, and research work. Internationalization is therefore ‘a process of integrating an international perspective into education. It needs every institutional realize to change their traditional way of thinking and motivate people to consider the whole to think globally and collaboratively. It is a way towards an ever-changing, diverse external environment that focused on the global environment.

Internationalization is a revolutionary development in Higher Education for the whole world. The overall demand for higher education, and professionally related courses, is increasing in many countries of the world. This is happening due to many factors such as the changing demographics, the increased educational investment, the lifelong learning attitudes, and the rapid development of innovative technology. All these gradually formed a kind of demand which required the traditional institutions to transfer themselves and provide more global education for their citizens. Higher education institutions, therefore, are adopting various plans, policies, and strategies to internationalize education in response to these global demands.

1.2 Internationalization of Higher Education in China

Internationalization needs a university to become “international”. The “internationalization” of a university refers to the process by which the higher education institution is developed to be more globalized. A university, as a knowledge-producing entity, consists of administrative organizations, staff members, students, facilities and resources, buildings, and so on. It also has its history, culture, and operating system. It has a tripartite mission: teaching, research, and service (Maringe & Foskett, 2010).

The internationalization of higher education is not a new story in China. As early as the latter half of the 19th century, when China became a semi-colonial country, it established its modern higher education system by adopting foreign academic patterns, notably from Western countries.

To effectively integrate colleges and universities in China with international standards, the leaders of each institution should first pay attention to the issue that the institutions they manage can participate in all aspects and improve the level of internationalization from all aspects (Bird, 2013). For example, universities try to carry out more exchange activities at the international level and increase

academic exchanges with other international colleges and universities with certain strengths. In addition to cultivating many exchange students, the organization can also promote its internationalization and increase its popularity by holding and participating in international forum cooperation. Due to the current global outbreak of the COVID-19 pandemic, there are many restrictions on international communication -- people must travel less frequently across borders to reduce their risk of contracting the virus. Then can adopt the way of online communication, by now have more advanced Internet and 5 g technology, people can do multinational real-time meetings and communication, which not only can reduce the cost of communication make more students and teachers has an opportunity to participate in the international communication, can also reduce the risk of the spread of the epidemic, now, Transnational teaching has become one of the important ways for colleges and universities to promote the internationalization of education.

Leaders of colleges and universities in China pay close attention to and update their educational concepts in real-time. They try to constantly strengthen their awareness of education internationalization. A qualified and open-minded leader of an institution of education or university should have a pattern of openness to the outside world. Such awareness should not only be confined to China but also emphasize to their teachers and students the importance of internationalization of education of university and take practical actions for it (Alpenidze, 2015). They should not only understand the development of this trend and stay on the cutting edge but also encourage their staff and students to take advantage of the opportunities of international exchanges and cooperation and actively participate in various international activities, which is very consistent with the concept of sustainable development of educational institutions.

To support the internationalization of education of universities in China, in addition to encouraging staff and students to actively participate in international activities, corresponding special funds should be set up to support this activity (Bird & Osland, 2004). Leaders of relevant colleges and universities should formulate plans and strategies related to education internationalization in stages, clearly define each short-term mission objectives to be achieved, and grasp the overall requirements and critical factors of a long-term strategy. To ensure that the internationalization of education of universities can continue to advance, the most direct and effective way is to set up special funds for the projects related to the internationalization of education of universities to ensure the basic development and normal operation of the projects (Chang & Lin, 2017).

Each school has a different school-running philosophy. Therefore, each education of university institution in Hebei Province should promote the internationalization of education of university according to its own actual needs and by the principle of learning from each other. This means that these institutions can weigh their activities to internationalize the education of universities in terms of environmental protection, academic research, humanistic care, and financial profit.

1.3 Effective Responses of Higher Education Institutions in China

The integration of the world economy has led to the increase of cross-border flows, which has led to the globalization of personnel, culture, and technology (Campbell, 2015). Global integration is the trend of The Times. The world is closely linked. Whether it is trade or economy, countries learn from each other's strengths and some governments stick together for win-win cooperation. Globalization is promoting the development of transnational trade and education with more and more perfect international laws and regulations (Chang & Lin, 2017). It is economic globalization that has affected every corner of the world, social economy, and even national political structure to varying degrees (Childress, 2009). Davies (2003) believes that eventually the government must empower some departments and institutions and allow privatization movements to take place in these departments and institutions.

A university is an institution of education of university that gathers talents with cutting-edge skills and knowledge. An excellent university will attract international outstanding scholars and professors to conduct more international cooperation and exchanges. Finally, the government will pay attention to the activities of the university and provide objective financial support (Davies & Davies, 2004).

On a school-wide level, this will benefit its long-term sustainability. And on a personal level for teachers and students, it will broaden their landscape, increase their breadth of knowledge, improve their global awareness and global leadership. To get an advantage in the fierce international competition, the participation internationalization is an effective path, can not only improve the students' application level of internationalization, but also can promote the internationalization of teachers' teaching level, but teaching mode can also adapt to domestic students and international students, grasp the frontier subject knowledge and teaching skills, improve teachers' teaching and learning promote each other, mutual growth.

In recent years, the phenomenon of college enrollment expansion is more and more serious, which makes the competition of colleges and universities more and more fierce, which also brings a series of problems (Alpenidze, 2015). Faced with great pressure of enrollment, many institutions of education of university seek other ways to increase the scale of enrollment (Campbell, 2015), and more and more colleges and universities turn their eyes overseas. Recruiting overseas students has become a trend (Chang & Lin 2017) recruiting overseas students will help improve the internationalization level of colleges and universities and increase their popularity. Many colleges and universities believe that recruiting overseas students is an opportunity (Childress, 2009).

2. Global Leadership

2.1 Perspectives in Global Leadership

Throughout recent decades global leadership viewed the need for international managers to develop global strategies, take part in global markets, and tackle the global business emphasis (Baporikar, 2017). It is odd to increase the capacity and boost 'global leadership practice,' defined as conditions for workers at national fringe meetings. Experts developed models that could help improve organizations' leadership and authority worldwide. Simultaneously, the efforts have added to an unrivaled comprehension of the abilities and aptitudes leaders must have the world over and how these can provide successful models and definitions (Garcia, 2018). This central surge of research usually is interested in nature, isn't clarified unequivocally, and significantly deficient in the following area, we survey and assess the newest conception of global leadership.

The interpretation of global leadership or model is one calculation in which current meanings change. There isn't much leadership across the world as an unequivocal articulation reflected through a portion of world leaders' undertakings, initiatives, and tasks. The proof of these characteristics is beneficial. The manual allows identifying and improving the skills and capabilities necessary to fulfill the parts and functions and distinguish features of test results (Yukl, 1981). There are few interpretations and reports, for example, indicating that anyone with the title of a global boss is world-leading; others believe that world leaders must switch masters regarding Kotter's (1999) progress among these leaders.

This difference between the part and capacities calls for an alternate definitions class that characterizes the driving sector worldwide (Mendenhall, 2018). These meanings of initiative around the globe don't include just growing the nearby leader's attributions and drills to a progressively far-reaching circumstance (Malakyan, 2014). Instead, consider initiative around the world as an endeavor that represents a person's interest in and obligations worldwide and involves developing a meaning, culture, and nature. A leader interacts with the all-inclusive community worldwide and the tool by which the leader exerts its power. This approach has also been considered when reading about the exchange of members and the concept of social leadership.

Finally, some meanings promote understanding global leadership as a state and as a process, including a few main priorities. The state and process classes are, of course, not of concern. The past shows people should fulfill the responsibilities, sections, and duties that reflect the role of authority around the world. For example, the use of obligations throughout the world does not occur in a vacuum and requires different individuals to be considered and assisted, ultimately involving procedural elements (House, 2001). It means that the whole world's management cannot be investigated without understanding each project's needs and characteristics to initiate this model.

Northouse (2018) appeared to recognize it by calling for world leaders to have a substantial impact on global government activities. Secondly, the refining of state-procedure is usually an analysis unit: The overall initiative systems go to the person's past that includes portions of the world, deals with obligations worldwide, and perceives how they are embedded in a more extensive group where it works. Leaders around the world to accomplish their objectives. The integration of state and institutional structures enhances the link between the two from this perspective, which involves creating global management and the global initiative.

2.2 A Global Leadership Strategy for Better Internationalization

The trinity of global leadership. Glass & Lee (2018) points out that there are three groups of global leadership, known as the "Trinity of global leadership". The three types of leadership are : (a) Business acumen; (b) Relationship management; (c) Personal efficacy. The study then breaks down the 15 competencies that extend from the three leadership competencies. Competencies such as business acumen include domain depth, entrepreneurship, stakeholder orientation, and overall organizational acumen. Relationship management competencies are change agent, community building, conflict management and negotiation, cross-cultural communication, and influence. Personal efficacy includes conscientiousness, curiosity, the ability to learn, improvisation, maturity, and mental agility.

The Seven skills of successful global leaders. Jokinen (2005) conducted a study on 100 senior managers with the most outstanding performance ability in 20 global companies with a deep degree of internationalization. The study found that corporate leaders from around the world had seven key qualities: openness, flexibility, ability to tackle complex problems, cultural interest, and business acumen. Despite cultural differences, these people are invariable of high comprehensive quality, with exceptional insights, strong minds, a high level of management and business skills, and often have happy families.

A global leadership strategy, therefore, is proposed for a better internationalization design of Chinese higher educational institutions. It needs the educational leaders to study organizational structures, adapt global leadership that promotes shaping the internationalization of colleges and universities (Huang, 2003).

As suggested by Kets de Vries & E. Florent-Treacy (2002), this strategy emphasizes two issues of networking, namely, the type of international network and the size of the network, in the process of transferring the institutions into a more international organization. The global leadership strategy was proved that the adjustment of organizational structures positively associated with the internationalization of higher education institutions, which includes the following major steps as follows:

Set up specialized managers and leaders to devote themselves to the promotion process of

internationalization of education of the university. These managers and leaders usually have the rich practical experience and broad vision, they can lead the team, make the team elite and international, which will make the whole organization has an international level

Establishing a share management mechanism. Set up some departments such as the international committee and international outreach committee under the mechanism of shared management. These departments allow most teachers to be involved. Ensure adequate staffing. Staffing needs to meet two conditions: appropriate staffing and internationalization of personnel specialization level. Expand the scale of the international network. With the help of relevant platforms to expand the connection with the global network, to obtain more resources from internationalization, promote academic exchanges and talent introduction.

Meanwhile, from the organizational concerns, the global leadership strategy also requires improving the faculty members' global leadership competencies may also concern the following three steps organizationally.

1) The Chinese higher education institutions should set up the concept of globalization construction during daily work with faculty members. University leaders should comply with the government's relevant policies and regulations and the administrative departments of education. Design the globalization construction plan for the university's faculty and prepare the long-term and short-term goals of the globalization construction according to the actual needs of the long-term development plan and specialty establishment and structure of the university. Over time, faculty members will gradually collect the global resources: increase international exchanges and cooperation, promote the international flow of teachers, cultivate teachers' international awareness, strengthen teachers on world political, economic, scientific, cultural, national, local conditions and customs of understanding, improve teachers' foreign language level and communication skills.

2) Chinese higher education institutions should offer more opportunities to go abroad. It is necessary to send young faculty members to go overseas for further study and academic exchange. University needs to intensify long-term and short-term interaction between government-funded overseas students and schools and form a stable mechanism to create an adequate number of well-structured bilingual teachers who can meet global education needs. Teachers are encouraged to improve their academic research level while broadening their horizons, increasing their international exchange and cooperation ability, and radiating related disciplines to drive their global leadership competencies.

3) The Chinese higher education institutions should establish an international teacher management system standard and a flexible and diversified teacher training system for faculty members.

Conclusion

The internationalization of higher education in China has never been a one-way process but rather has been full of attempts to realize mutual communication and exchange. No matter what kind of measures the Chinese higher education institutions have been taken, it is important to promote and develop the teachers and educational leaders with global leadership competency. Chinese universities should adapt to internationalization needs and reform the leadership training content, to increase teachers' internationalized knowledge and ability; to adapt to the needs of different teachers, share vision and mission with the development of school disciplines, explore diversified training methods from the aspects of foreign languages, scientific research, teaching, and international knowledge and ability, and continuously establish a global teacher training system through international exchanges and cooperation.

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STRATEGIES TO ENHANCE TEACHERS' GLOBAL LEADERSHIP FOR CHINA'S HIGHER EDUCATION INSTITUTIONS IN THE GLOBALIZATION ERA

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Abstract: This paper firstly analyzed the challenges of globalization and its impact on higher education, then depicted the demands of teachers' global leadership with the theoretical evidence of global leadership and previous studies on teachers' global leadership in higher education. Moreover, the paper also provided five primary strategies for enhancing teachers' global leadership for China's higher education institutions, including 1) teachers in higher education institutions should be more aware of global development and better integrate their life plans with international ones; 2) higher education institutions in China should create more opportunities for international exchanges; 3) higher education institutions in China should establish standard teacher management system standards and diversified teacher training systems; 4) higher education institutions in China should try to hire more international teachers to improve teachers' global leadership and multicultural learning at different levels; 5) higher education institutions should broaden their global access to knowledge.

Keywords: Teachers' Global Leadership, China's Higher Education Institutions.

Introduction

With the globalization of education development and reform, university teachers are endowed with more and more important roles in the education reform and talent cultivation of all countries in the world. The improvement of the global leadership of teachers in higher education institutions is an important issue in education reform. The development of globalization has become an irreversible trend, but globalization is a double-edged sword, there are advantages and disadvantages. Marrow (1977) mentioned the development of globalization makes each country break the original national boundaries, making cultural concepts spread to the world. In the process of globalization, it is obvious that higher education institutions bear the important responsibility of developing culture. Improving teachers' global leadership will help teachers resist backward culture in the process of globalization, actively absorb the advanced culture, and promote the overall development of students and teachers, which has

become a topic worthy of attention. With the global flow of human resources, more and more Chinese students study abroad, the pace of the global flow of educational resources is also accelerating. Teachers need to better understand the international teaching level and cutting-edge theories. Received more and more returned students' employment impact at the same time, compared with the students not to study abroad experience of students at a disadvantage in the job market, only if a teacher to improve global leadership, to better promote the internationalization of teachers' level and better cultivate the students' international competitiveness, so it is important to improve teachers' global leadership is also very urgent.

1. Challenges from Globalization

1.1 Challenges Brought by Economic Globalization

Economic globalization allocates resources to be full, and educational resources inevitably become a part that cannot be transferred by people's will, which leads to more educational exchanges among countries. If teachers do not cultivate global leadership, colleges and universities will lose their competitive edge and hinder their sustainable development (Sharma, 2002).

China's human settlement income level and economic development level are constantly improving, and more and more overseas students choose to study in China to learn Chinese culture. In recent years, the number of students studying in China has grown rapidly, and most of them study in China at their own expense. Higher education institutions play an important role in the overseas students' study in China.

1.2 Challenges Brought by Political Globalization

Political globalization has brought more and more preferential policies for studying abroad, and many countries encourage students to study abroad. In 2001, China joined the World Trade Organization. WTO provides more and more opportunities to study abroad, which makes China also get preferential education policies of WTO. Only by integrating education with other countries can China better cultivate talents to participate in international competition. To promote the development of China's higher education, China's education must be in line with international standards, which also reflects the important direction of China's education development.

1.3 Challenges Brought by Social and Cultural Globalization

In the 21st century, with the development of transportation, the development of long-distance transportation such as high-speed rail and airplanes has shortened the distance between people. The development of the Internet has made a huge leap forward, making communication more and more

convenient, opening the world, breaking down national boundaries, resolving people's ideas and cultural concepts, and providing favorable conditions for globalization (Jiani, 2016). Many young people want to see different national cultures, contact advanced ideologies and culture, more and more people want to become the leader of global competitiveness, and more and more young students choose to study abroad.

To understand the latest trends of international development, we need to have an international perspective, which requires people to communicate well, so foreign language ability becomes an important factor. In China, many teachers in scientific research institutions and institutions of higher learning do not work behind closed doors, do not pay attention to the frontiers of academia, do not attach importance to international exchanges and cooperation, and lose the opportunity to learn from the world, which is not conducive to China's development (Erbelding, 2019).

1.4 Globalization in Higher Education

Globalization is a blade with two edges. It creates favorable conditions for all countries' growth and makes many threats and uncertainties for their way forward. Higher education globalization also faces opportunities and challenges (Scott, 2005). Higher education globalization has influenced higher education reform in different countries, facilitated the global flow of higher education capital, given higher education resources.

Globalization and the growth of the information economy have set forth higher expectations for citizens' quality (Kerr, 1991). Talent plays a crucial role in the market for comprehensive national strength. A talented individual with high quality and strong qualifications has creative potential and is competitively advantageous. Higher learning institutions must provide the social economy with high-quality human capital directly (Philip, 2001). Globalization allows higher education instructors and students to respond to international economic and cultural change demands and break down the boundaries between concepts and cultural gaps. In the process of globalization, higher education often experiences a contradiction between possibilities and obstacles.

A significant part of higher education globalization is the international flow of faculty and a shortcut to international collaboration in education (Scott, 2005). Therefore, in recent years, higher education institutions in several countries have introduced different ways to increase the number of faculty studying overseas and doing advanced studies while hiring faculty and academics from overseas (Erbelding, 2019). With international expertise and experience, education specialists will specifically facilitate teaching and learning towards internationalization. On the one hand, it helps to make faculty global; on the other hand, it also pushes the instructional ideas, instruction, and teaching in an internationalization direction.

International students' education symbolizes the country's growth and humanity's development

(Oberfichtner & Schnabel, 2017). It provides tremendous political and economic advantages and has considerable importance and far-reaching impact in promoting its culture and values, extending its influence, and enhancing its international status.

2. Global Leadership

2.1 The Demands of Teachers' Global Leadership in the Era

First, teachers' cultural awareness and cultural sources are very important for national development. With the development of globalization, multi-culture and multi-consciousness have become an inevitable trend. Different ethnic cultures, customs, and religious beliefs blend and collide with each other. Teachers' global leadership should be cultivated so that they can better distinguish advanced culture from backward culture, learn to discard backward culture, and guard national cultural security line (Ortiga, 2017). Second, the global leadership of teachers can better use multicultural training for students. To cultivate teachers' global leadership, they can better absorb the advanced culture, master cutting-edge scientific and technological forces and academic research frontiers, better enlighten students' wisdom and thoughts and cultivate more talents who master cutting-edge culture for the country (Rya, 2016). Third, the era needs higher education institutions to develop the teachers' global leadership and cultivate higher education institutions, teachers, and students with global leadership to adapt to the development of globalization. In an era of globalization challenges, the study of global leadership can be better applied to the globalization of higher education institutions. The understanding and perspective of global leadership will be strengthened and balanced, identifying the changes and challenges of globalization in conflict resolution.

For teachers and leaders of higher education institutions, they need to learn more to develop their global leadership, which can not only help them enhance students' growth in all directions with the current world, but also help them become an educational leader who can face all kinds of teaching, learning, and managing tasks at the same time. By cultivating teachers' global leadership, therefore, the demands of teachers' global leadership appeal the institutions and leaders better understand the development direction of global educational institutions, facilitate the formulation of strategic goals, create schools with better conditions, and promote the development and growth of education.

2.2 Theoretical Evidence and Support for Global Leadership

2.2.1 Personal Behavior Theory (Lewin, 1944)

A person's behavior is influenced by the surrounding environment, and all behaviors are produced by the interaction between oneself and current activities. A person's living environment is the most important influence on human behavior, which is the sum of all influencing factors. Behavior is a

part of living space, life sustenance in space, space is utilized through life, is created by the interaction of individual and organizational factors. When teachers face the globalization environment, they also feel the impact of globalization. For example, academic articles with a global perspective are more likely to be employed by high-quality journals, and teachers who run bilingual teaching can get more favorable treatment. The global environment makes teachers more willing to carry out self-revolution, strengthen the study of international knowledge and cultivate their international leadership. Therefore, it is necessary to strengthen the development of a flexible global leadership training system.

2.2.2 Global Leadership Competencies Theory (Birds *et al*, 2013)

Bird's (2013) cluster global leadership skills model will be adopted the comprehensive analysis and combination of psychological, personality, attitude and emotional information become three important influencing factors, namely, organizational and coordination ability, managing people and relationships, and managing self.

Management of relationships is a model in which the company provides the audience with a continuous interaction degree. This may be achieved between a professor and students or between educators and representatives. Partnership management aims to create cooperation between an undertaking and its stakeholders instead of merely contemplating a transnational partnership. Self-management programs teach students individually to complete tasks and systematically monitor and develop their students' actions. The development of self-confidence and independence is a crucial educational aim. Nevertheless, self-management strategies can be applied before any troublesome patterns emerge. Studies in research show that self-administration techniques can be used to boost university efficiency.

Organization and coordination ability is a kind of interpersonal ability, which can be expressed as the ability of people in practical affairs. Relationship management is an intangible relationship between professors and students, educators, and representatives. Self-management is a kind of ability to carry out affairs independently, cultivating self-confidence and independence is an important educational goal. In the process of improving teachers' global leadership, teachers' ability of organization and coordination should be cultivated, and they should actively strengthen communication with foreign teachers, carry out self-management and independently learn global knowledge.

2.2.3 Organizational Behavior Theory (Fuller & Zhan, 1969)

In the 1960s, Fuller introduced the faculty member concerns term, being the student Faculty members' perceived issues (Fuller, 1969). Two forms of work arose from the concept of general concern. The first form is concerned with identifying the behavioral and learning dimensions of both pre-service and in-service educators, focusing on the concern-based faculty member development model of Fuller and is the core focus of the latest study. Fuller's faculty member development model, based on an analysis of the concerns of educators, provides a three-stage faculty member development

model moving from (1) self-concern to (2) task-related concerns to (3) student-related concerns and teaching effects.

2.3 Teachers' Global Leadership

Feng-mu (2010) pointed out that in the global leadership environment, teachers need to cultivate international vision and an international way of thinking. Only international ways of thinking can promote teachers to learn from cutting-edge international academics and technologies and better integrate into the trend of internationalization. The concept of internationalization is a key step in improving teachers' global leadership. Cultivating international leadership requires an ability to deal with a complex environment, and communication becomes an important factor. People with communication skills are more likely to improve global leadership. The cultivation of leadership is closely related to the cultivation of trust, the development of good interpersonal relationships, the learning of listening to their views, and the relationship with others through listening (Kerr, 1991).

The research of Kuzmic (2000) also confirmed that higher education institutions are the subjects of international exchanges and cooperation and shoulder the important responsibility of improving teachers' global leadership. Teachers' global leadership can be improved through knowledge education in higher education institutions. Meanwhile, knowledge and training of global leadership in high education institutions can be extended to other regions through successful pilot programs, which can improve teachers' global leadership in the short term. Improving relationship management and self-management can increase teachers' understanding of the connotation and extension of global leadership and make use of the good atmosphere of learning and training to feel the changes of international leadership on teachers. In addition, he noted that by creating a network where faculty can share experiences and skills with other faculty members, thereby increasing their organizational learning and leveraging the expertise they already have, global leadership can be enhanced within the organization.

Li and Bray (2007) believed that to become a teacher with global leadership, he or she should have good self-adjustment and adaptability, be able to actively participate in organizational activities and win the trust of others, be the leader of the organization and the promoter of organizational construction. Good self-regulation and adaptive ability have a spillover effect, will make others have the idea of learning to imitate, inspire others to work toward the goal of continuous efforts. Teachers' global leadership will promote the development of globalization. Teachers with global leadership can better cultivate students' international vision, and students with international vision can engage in international affairs, thus contributing to the development of the global economy and trade (Kharrazi, 2018).

The construction of global leadership is closely related to institutions of higher learning, teachers, and societies. As the main implementation departments of education, higher education

institutions should carry out more international exchange activities, and teachers should integrate the cultivation of global leadership into their teaching and life. According to their characteristics and development needs, students actively accept the international advanced culture, to become a high talent with global leadership as their development goal (Northouse, 2018).

Recognizing this, Northouse (2018) called on the world's higher education institutions to take the issue of global leadership seriously. In the process of globalization, higher education institutions no longer exist as an isolated unit, but also exist as a part of a world higher education institution, which is the existence of a broad group. Therefore, we must pay attention to the cultivation of global leadership, which can gain an advantage in the international education competition (An, 2000).

3. Strategies for Enhancing Teachers' Global Leadership for China's Higher Education Institutions

Based on the above analysis, it is very clear and important for China's higher education institutions to enhance teachers' global leadership, which could impact student achievement in various ways, so to enhance the institutions' development to some degree in this globalized era. In this regard, strategies for enhancing teachers' global leadership for China's Higher Education Institutions are provided as follows:

Firstly, teachers in higher education institutions should be more aware of global development and better integrate their life plans with international ones. In today's world, globalization, like artificial intelligence, is a general trend of development. Teachers in higher education institutions actively integrate into globalization in daily teaching, scientific research, and social service, so that teachers can better guide students and serve society. Universities build their vision and mission with international undertakings and actively integrate into the tide of globalization. To educate students to establish the concept of global development, personal growth and development are inseparable from the trend of globalization, personal ideal, and future development plan into globalization. At present, due to the limitation of foreign language proficiency, many college teachers do not have a deep understanding of globalization and do not have an ideal understanding of international cutting-edge trends. It is an urgent task for college teachers to strengthen their global foreign language learning ability. Only by mastering the world's cutting-edge knowledge and having a broad vision can students make correct judgments on global affairs and well guide students to master advanced culture.

Secondly, higher education institutions in China should create more opportunities for international exchanges. The school organizes students to participate in study Tours and visiting activities and sends more young teachers to foreign countries for academic exchanges in the form of government-funded overseas study, to learn advanced foreign research methods, explore cutting-edge research content, and better carry out academic activities in a nationalized atmosphere. Actively

establish stable cooperative relations with foreign universities and adopt the form of joint training with overseas universities to cultivate professional talents with different educational systems. Actively cooperate with foreign universities to form a stable and long-term liaison mechanism, train a group of bilingual teachers to meet the global education needs, and actively create inter-school cooperation mode with regional characteristics. Teachers are encouraged to participate in international academic conferences to review the trends of academic development from a global perspective. Seize the opportunity of international study, develop comprehensively across disciplines, enhance international communication and cooperation, and enhance global leadership.

Thirdly, higher education institutions in China should establish standard teacher management system standards and diversified teacher training systems. The training system is the foundation of teacher training and an important means to promote teachers to cultivate global leadership. A more flexible and diversified approach should be adopted to establish and improve the teacher management system. Colleges and universities should adapt to the needs of internationalization and reform the training content. The reformed training will enhance teachers' international knowledge and ability. To meet the needs of different teachers, share the vision and mission with the school's discipline development, explore diversified training methods from a foreign language, scientific research, teaching, international knowledge, and ability, and constantly establish a global teacher training system through international exchanges and cooperation. To train more teachers of new global leadership.

Fourth, higher education institutions in China should try to hire more international teachers to improve teachers' global leadership and multicultural learning at different levels. International teachers can bring international teaching ideas and methods. By constantly strengthening communication with international teachers, they can better share international teaching achievements and make teachers' ideas and concepts more compatible with international standards. International teachers can bring new educational reforms, promote the internationalization of curriculum teaching, and better cultivate high-quality applied global talents. At the same time, we actively carry out communication and cooperation with foreign teachers, organize international seminars and exchange meetings, expand the international academic level of teachers, and promote the localization of more academic achievements.

Lastly, higher education institutions should broaden their global access to knowledge. The channels for college teachers to acquire nationalized knowledge are relatively narrow, mainly through the Internet, books, electronic materials, and friends. The source channels of such information are mainly second-hand materials, lacking detailed data of practical research, so the knowledge acquired through these channels is lagging and unreliable. Therefore, university teachers should widen the way of information acquisition and innovation for the way, don't organize regular institutions of higher education teachers' professional learning, absorb the international forefront of cultural knowledge,

more support for teachers with international exchange activities, subscribe to the internationalization of journals, magazines, buy a foreign database, multi-channel sources more international knowledge.

Conclusion

In conclusion, facing the challenges of Globalization in higher education, it is time that Chinese institutions should further enhance their teachers' global awareness and integrate more global awareness into their work. Though university faculty members have realized the importance of global consciousness today but have not yet integrated global consciousness into daily teaching, scientific research, and social services. This situation is in urgent need of improvement. Only by integrating global consciousness into daily work can faculty members better guide students and serve society. Therefore, the University should build its vision and mission to help to understand global consciousness.

Meanwhile, higher education institutions should strengthen global knowledge propaganda, it's an urgent task for strengthening teachers' global learning at this moment. Only by mastering rich international understanding can an individual have a broad global vision, make correct judgments on global affairs, and better guide young students. On the other hand, the individual's global consciousness is bound to be influenced, and it is impossible to integrate global consciousness into daily work. Through the analysis, this paper also hopes China MOE and Higher Education Institutions should try best to broaden the channels of learning global knowledge. The information obtained from these sources may not be enough, so it may affect the teachers' learning about global knowledge from different channels as access to global knowledge.

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THE PRINCIPALS' LEADERSHIP ROLE AND STRATEGIES FOR THEIR DEVELOPMENT TO ENHANCE STUDENTS' ACHIEVEMENT IN CHINA'S RURAL AREAS

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Abstract: Through the analysis and review of the literature, this paper emphasized the importance for rural schools to have a successful principal leadership, as the principal's leadership could impact student achievement in various ways, so to enhance student achievement to some degree relies on the process and development of principal's leadership. The paper also explored what roles the principals can play in helping students succeed in terms of improving their learning achievement, as well as explained the current four types of principal leadership with their difficulties and challenges in China's rural schools. Meanwhile, the paper also discussed and provided strategies for the principal to promote their leadership and transfer themselves as the leader of the learner, the leader of the manager, and the leader of the school culture shaper in the real practical school management work.

Keywords: Principal's Leadership, Difficulties and Challenges, Students' Achievement, China's Rural Areas

Introduction

Studies on the factors of students' performance have always been focused on their academic achievement, yet the relationship between principal leadership and student achievement is rarely conducted in China, especially in the rural school areas.

However, in the west, studies on the principal's leadership and student achievement in rural schools were started earlier (Chalker, 1999). As the school principals carry various roles, they must emphasize the students' academic performance, reduce management intervention among teachers, encourage teaching commutations, and do regular visits to the classroom (Jacobson & Bezzina, 2008). In recent years, more Chinese studies on the relationship between principal leadership and student achievement have been conducted in rural areas. Since scholars believe that principals not only need to guide the school's technical core-teaching and learning and build a high-quality teacher team but also need to lead in upgrading the school curriculum and improving the students' achievement (Yang, 2019).

This paper, therefore, is to analyze the impact of the principals' leadership development on the students' achievement in rural schools and explores what roles the principals can play in helping students succeed in terms of improving their learning achievement.

1. Principals' Leadership

1.1 Successful Principals' Leadership

The principal has a variety of diverse and complex roles, they are responsible for the construction and operation of the whole school. Many principals must need to bear administrative and political responsibilities, such as the school educational leaders and managers. To define a successful principal, there are many different interpretations.

Different studies have given different perspectives to the successful principal as a leader (Crum, & Sherman, 2008). The principal's educational and administrative responsibilities include the principal's responsibility to work with all stakeholders: from students to teachers, parents to community members, teachers to the local district officials, school staff to service people (Mangin, 2007). Mulford (2008) commented on principals' contemporary leadership: "Successful school leadership will be contextually literature, organizationally savvy and leadership smart" (p31).

Ylimaki and Jacobson (2011) described that successful principals can learn from the interaction of their life experience and develop knowledge from their work and promote the sustainability of school success through the interaction between managing different kinds of people. According to Brown (2005), as a first-class teaching leader, the principal is also required to be a highly skilled construction manager, an outstanding human resources director, and a competent negotiator. They need to be change agents for solving the practical problem and developing the strategic plan. They need to provide a specific leadership for maintaining the daily school management, promoting students' development, improving teachers' collaboration, and leading the school to the future innovation (Encarnacion Jr, G., Drysdale, L., Gurr, D., Jacobson, S., & Merchant, B. 2014). Dinham (2005) discussed the core of an excellent principle is "focusing on students' achievement". There are six attributes for this regard, including external awareness and participation; preference for innovation and personal quality of action and human relationships; vision, expectations and healthy school climate; teacher learning, responsibility, and trust; student support, shared goals, and collaboration.

Take the headmasters of American primary and secondary schools as an example. Before 1900, the responsibilities of the principal were very simple. The management system of hiring and firing teachers, arranging courses, rewarding, or punishing students has inherited hundreds of years of human education history. After going through the period of imitating industrial management in the 20th century, to the second period of interpersonal relationship management, and then to the open management model

period from the 1960s. Since the 1980s, the school has become a common learning community, not an administrative institution (Joe, 2004).

1.2 Principals' Leadership with Six Standards

Liu and Harvey (2007) believed that the principal must give administrative significance to the school management. The main purpose of school management is to improve student learning achievement, with a focus on the overall development of students. The leadership behaviors of primary and secondary school principals have also involved with the following 5 categories of leadership:

- a. Management leadership
- b. Democratic leadership
- c. Teaching leadership
- d. Ethical leadership
- e. Reformed leadership

Each leadership will be displayed under the corresponding management model. These management concepts have derived six standards (ISLLC, 2006), which try to confirm the principal's role as a school leader for promoting student achievement in the school. These six standards confirmed one fact that the major focus of a school's work for a principal and teacher is measured by the student's learning achievements.

The six standards for good principals established by state education officials and members across the United States are as follows (NAESP, 2002):

Standard 1: The principal leads everyone to formulate an ambitious learning goal, mission, and vision, and all the staff implements it together.

Standard 2: Principals can promote, nurture and maintain a school culture and teaching model based on best teaching practices, which is helpful for students' learning and in-service development of teaching staff.

Standard 3: To ensure the establishment, operation, and resource management of the school is committed to establishing an efficient, safe, and low-cost learning environment

Standard 4: Collaborate with parents and community members, make full use of community resources, and meet all interests and needs.

Standard 5: Be a fair, upright, and professional ethics principal.

Standard 6: Understand, respond and have an impact on the political, social, economic, legal, and cultural aspects of the school.

2. Current Principal's Leadership in China's Rural Schools

2.1 Dilemmas and Challenges

UNESCO believed that schools in all different countries in the world, regardless of their level of economic and social development, should provide everyone a chance to receive education (New Village Principal Forum, 2017). China has a large population, and rural school education is an indispensable setting in education. Therefore, the development of principal leadership in such a situation should be considered based on the actual situation of rural schools in China, starting with studying the roles of principal, their leadership development, and the learning achievement of rural students.

Liang &Huang (2020) summarized there were six topics as the major focuses for current Chinese education reform, these six topics were concerned with the development of the rural schools, principal leadership, curriculum reform, the implementation of educational policy, as well as the evaluation of public health. Currently, in China, there is limited research on teacher construction, principal leadership, family participation, and student health. As for the concern on the principal of a rural school, the most important focus is on its leadership. Improving leadership has become the key factor for the principal's development in rural schools and for improving the students' achievement. As the main leader, school principals bear the heavy pressure of school survival and development, and at the same time play multiple roles such as teaching leader, team leader, generalist leader, community-school liaison, information technology leader as Schafft and Alter (2006) pointed out.

School principals are the most important persons that may promote school improvement and bring about changes in all different educational reforms (Pollock, & Briscoe, 2019). Therefore, their leadership development is a key contributor to the school's effectiveness. Meanwhile, facing the complex social and cultural environment and the various educational challenges, school principals must improve their new skills and abilities to lead the school successfully in this 21st century (Jacobson & Bezzina, 2008).

In 2017, the 19th National Congress of the Communist Party of China proposed the implementation of the strategy of rural revitalization. The quality of rural education has become an important breakthrough in rural issues in China. However, the loss of talent in rural schools, and the low quality of students' achievement, have become bottlenecks in the school development of rural education (Starr & White, 2008). As the leader and executor of school education, rural school principals are the most direct groups facing these education problems.

The Education Law of the People's Republic of China stipulates the principal's responsibility: The school's teaching and other administrative management are the responsibility of the principal. The Education Law is the basic law of education in China, and its relevant provisions are the implementation

of the school principal's responsibility system. Provided legal protection, and clarified the types of principals' responsibilities, including professional responsibilities and administrative responsibilities. These professional responsibilities and administrative responsibilities, while endowing the principals with rights, also bring about different dilemmas and challenges.

2.2 Four Typical Principals' Leadership in China

The following cases of four rural principals present the typical school leaders in China's rural areas (Wei & Meng, 2020):

- Principal A has graduated from a prestigious university and entered a rural school to work. Because of his good learning habits from his university, he or she often listens to the teachers' classes and solves the teacher's problems face-to-face. Then the student's achievements and the school quality may get increase gradually. However, seeing this performance, the superior department transferred Principal A to the urban school, he or she may leave the rural school forever.
- Principal B in the rural school may be transferred from the school logistics department, drinking and playing cards every day, when he or she encounters things, will only shout "whoever is not doing well will be expelled", this type of principal will abuse the power, so the quality of school management may be influenced a lot.
- Principal C may come to the position through the recruitment of principals, engage in-class teaching, supervision, curriculum reform, and inspection of superiors. The quality of teaching has been comprehensively improved under the supervision of Principal C. He or she focused a lot on teaching students' scores, but this kind of leader may let teachers feel nervous, as the teacher was very tired of the working environment and the principal, which led to high stress for teachers. As a result, after working in the rural schools for 10 years, Principal C may resign.
- Principal D may be appointed by high-level leaders and never go to teaching buildings and offices. The teachers did not see the principal three times a year, and they were only seen during the meeting. Principal D didn't do anything but shook his hands. A few years later, his school was not popular, and he couldn't do it anymore.

These 4 types of principles as mentioned in the above part may encounter different problems, but the contradiction between unequal power and responsibility is the most prominent. The unequal rights and responsibilities lead to a mismatch between the principal's due rights and actual rights. Principals with outstanding ability can't be further developed, and principals with average ability can't lead and manage the school. The principal's leadership work is not carried out scientifically, which is also the most prominent part of the conflict among students, the teaching staff, and the principals (Fullan, 2001).

According to Zhao (2020), most of the rural principals in China thought they lack their personnel power. Specifically, 97.6% of rural principals believed that they do not have enough right to recruit their teachers; when unqualified teachers appear in schools, 98.2% of rural principals believed that they had no right to dismiss any teacher; 40.7% of rural principals thought they had no power to reward and punish teachers. Then, the rural principals also lack financial rights, as the use and allocation of educational funds in many Chinese schools need to be approved by the local MOE leaders. The cumbersome procedures have led to the forced abortion of some projects in rural schools that are in urgent need of expenditure and flexible use of funds. Moreover, the rural principals also felt the lack of autonomy in running schools, since the education authorities and the township of the school districts are overwhelmed with many school affairs, which makes rural schools' autonomy to run their schools inadequate. These management loopholes have greatly affected the principals' enthusiasm for running schools and the realization of their ideal ambitions. Other challenges as described by Zhao (2020) include lack of reasonable reward for teachers, lack of funds for self-sponsored schooling, lack of teachers with higher educational qualifications, all these problems may appear in the process of teacher and staff management in the rural school.

On the other hand, from the student's perspective, students studying in rural schools are mainly left-behind children, and boarding students, which forces the principal and staff of rural schools to shoulder the student safety responsibilities as the primary task. "Safety first" has become the priority for schoolwork. The education and teaching of students and the development of teachers are considered after that; therefore, rural students' out-of-school practice activities may be easily canceled due to the consideration of safety. And in the daily management of the school, the issues of food safety, living safety, and traffic safety are becoming part of the responsibility of the school, which results in the school's inadequate focus on creating a positive learning environment in school.

Last but not the least, the rural school principals may have more administrative responsibilities than professional powers. Many rural school principals are mainly responsible for the school curricula, teaching, and the professional development of teachers. The reality is that there are too many administrative affairs, and the administrative responsibilities of undertaking and coping with education authorities are quite complicated. Local officials from MOE have frequent supervision and inspection activities on rural schools in China. Many documents that may not relate to teaching are also needed to be implemented by the rural principal. Meanwhile, despite the teaching experience, many rural school principals are lack strategic planning and management skills, such as personnel management and leadership skills (Zhou & Zhang, 2020).

3. Rural School Principals' Leadership on Students' Achievement

3.1 Impact on Students' Achievement

Research on the improvement of the leadership of rural principals gets more popular in the world. Scholars classify research for rural schools into two categories: one type intends to seek “inner learning” in rural areas (Coladarci, 2007); and the other type focuses on the rural environment, is called “Rural Environment Only” (Hardman, Stoff, Aung, & Elliott, 2016). Like the urban school principals, rural school principal also needs to recruit and develop teachers, as well as teach all kinds of students (Venezia, 2005), besides, rural school principals often face other challenges from the rural environment that urban school principals may not encounter, as explained in the above part (Raggl, 2015). Therefore, the continuous improvement of education policies for rural schools, the investment of education funds, and the improvement of the personal leadership management ability of rural principals are urgent issues.

Unlike the urban school principal, the rural principal, as a leader, is the actual executive leader who implements the national education policy on rural students. The leadership of the rural principals may be only developed in their practices of dealing with difficulties and challenges in the rural areas since every school is very different in terms of its environment (Marzano, Waters, and McNulty, 2005).

The ripple effect was proposed by Clifford (2012), who regarded the principal’s leadership as hierarchical and superimposed. The influence of the principal’s leadership behavior quality has directly and indirectly interacted. The way of influence is transmitted layer by layer as Figure 1 shows.

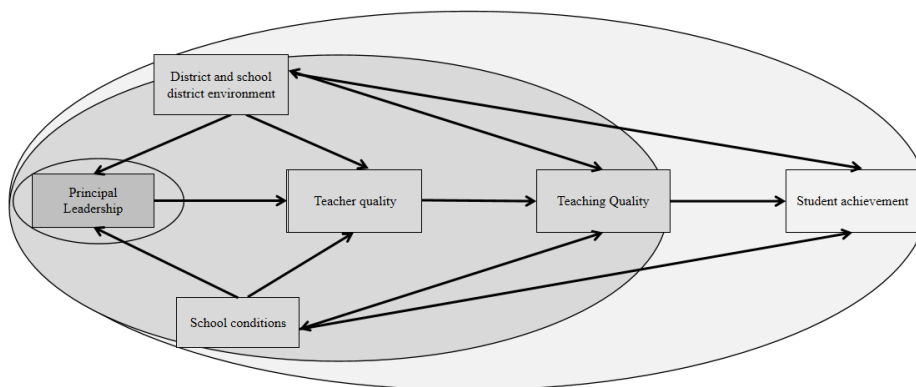


Figure 1: The Ripple Effect Model Influenced by The Principal

(Source from: Clifford, M., Behrstock-Sherratt, E., & Feters, J. 2012)

In Figure 1, the principal’s leadership is at the center of the student's achievements. The stronger the principal's leadership will result the greater the ripples. The principal’s leadership can directly affect the two variables "school conditions" and "teacher quality", and indirectly affect the quality of teaching through "school district and community environment", thereby affecting student achievement. And changes in student achievement will also hurt the community environment and school conditions,

thereby affecting the principal's leadership. This ripple effect is more prominent in rural schools in China. As the national education policy, rural school principals are the middlemen between the local education departments and school staff and students. They are both policy implementers and school leaders. The core radiation of the rural school principals' leadership role is more prominent. Because he can often relate to superiors and subordinates alone.

3.2 Ways to Increase the Efficiency of Student Achievement

The following three aspects are regarded as the judging criteria for student achievement (Robbins, & Halvy, 2016), intelligence/knowledge, personal, and social.

Students' Intelligence/knowledge development is concerned with their learning grades, and more importantly, with curiosity and desire for learning attitudes and knowledge.

Personally, Students have good health, active learning attitude, express themselves accurately, and be good at asking questions; can consciously arrange their affairs, have a certain initiative and consciousness for learning, and arrange learning time reasonably and effectively. Students study hard and persevere to understand their shortcomings, have the self-judgment ability, certain social skills, and organizational skills in their learning practice.

Socially, students can communicate with adults, respect others, be generous, and be good at accepting opinions from others. Can integrate themselves into the concrete and surrounding environment, and can also express their ideas and opinions, complying with school regulations and laws.

Qualitatively, the impact of the development of rural principals' leadership on student achievements still requires rural principals to develop their vision, create shared goals with high-performance expectations for students and teachers. Cultivate individual and collective support, provide appropriate role models for leaders, enhance school culture, establish collaborative processes with higher education departments and remove obstacles to success (Leithwood and Riehl, 2005).

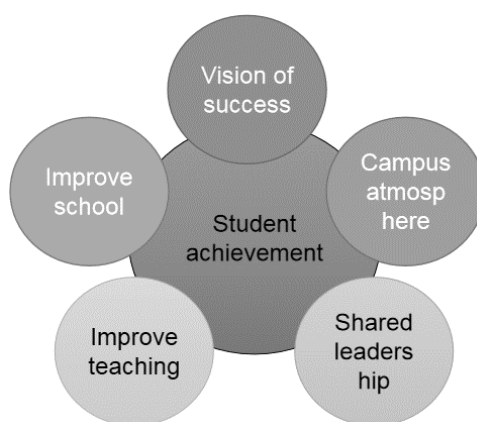


Figure 2: Five Ways for Principals to Increase the Efficiency of Student Achievement

(Source from Spiro, J. D. 2013)

Figure 2 showed five paths for principals to develop student achievement, through the analysis of the three important standards of student achievement, the focus on the principal's leadership, the impact of student achievement (Spiro, 2013). The principal shapes the vision of success; creates a friendly campus atmosphere; emphasizes shared leadership to inspire others' leadership; improves the teaching level of teachers and promotes school reform. The five paths reflect the influence of the principal's leadership on student achievement. However, as far as the special background of Chinese rural principals is concerned, the impact of these variables may not be reflective enough.

3.3 Previous Findings on Principal's Role in Student's Achievement

Feng (2003) mentioned that the "Ministry of Principal and Position Requirements" by China's MOE established the basic requirements and expectations for all the Chinese school leaders, which are different from the standards mentioned earlier in the last section and have become a set of goals for the development of Chinese principal training. As identified by China's MOE, there are four major responsibilities for the Chinese principals: the implementation of the national education policy; the development of democratic management strategies to effectively cooperate with teachers to stimulate their creativity and activity; the responsibilities of working with parents and members of the community at large; the responsibilities of school daily management, as well as playing the roles of leadership in moral education, instruction, physical education, aesthetic education, labor education, logistics leadership, cooperation with community groups and other organizations. All these responsibilities of the principal's leadership will be regarded as significant predictors for enhancing student learning achievement.

4. Strategies to Improve the Principals' Leadership in China's Rural Area

Throughout the development of rural education, it was found a major problem: more than 60% of teachers leave school, mainly because they hate the principal. If the principal is not good, the teacher will not be willing to continue to be a teacher. If the principal's problem is not solved, the teacher's problem will not be solved. Mobilizing the enthusiasm of teachers mainly relies on the principal. The vision of the teacher determines the vision of the child; the mentality of the teacher determines the mentality of the child, and the vision of the principal and the mentality of the principal will determine the vision and mentality of the teacher. Therefore, the key to improving the student's achievement and quality of the rural schools relies on if rural principals can better play the role of leader and solve the difficulties and challenges, in other words, it is vital to develop the rural school principal's leadership in various ways. In this regard, strategies are provided as follows.

First, encourage the principal to be a lifelong learner, the successful principals bear the responsibility of their professional development and are lifelong learners (Jacobson, Day, & Leithwood,

2005). They must understand the behaviors and activities that promote the learning of teachers and students; improve the efficiency of the principals in the supervision process and strategies; learn good education professional knowledge, conscientiously lead the curriculum and teaching, and lead teachers to grow. As the leader of the school culture shaper, by China's "Professional Standards for Principals of Compulsory Education Schools", rural principals should better plan school development, create a culture of education, optimize internal management, and debug the external environment.

Second, ensure the principal has enough managerial knowledge to be a good manager. They must emphasize personal improvement, and pay attention to moral cultivation (Allensworth, & Hart, 2018). They must grasp a kind of leadership style that is morally holistic, respectful, caring, and sincerely shared, tolerate errors, accept diverse opinions, and attach importance to the recognition, recognition, and practice of ethics. To accumulate management wisdom and master the art of leadership, the management wisdom of the rural principals mainly includes the wisdom of the rural principals in terms of authority, wisdom, and language. The wisdom of using power reflects that the principal can wisely use the power in his hand to mobilize the teachers and employees of the whole school to work hard for the development of the school. Use management wisdom to coordinate the conflict between rural parents and students. Connect the internal construction and external environment of the school with the government, parents, communities, and other schools (Arlestig, Day, & Johansson, 2016).

Lastly, make sure that the principal realizes the importance of the culture and builds an effective school climate and culture for better development of the whole school. Principals are regarded as key players to foster a positive school organizational culture and advance teachers' leadership under their effective leadership capacity. There should be more shared authority and opportunities for the teachers to access teaching resources arranged by the principals, so the teachers would become more confident in their professional judgment. The principals should also create a bigger space for teacher participation in decision-making, collaborative learning for the teachers. This may increase a collegial working environment where everyone shares resources, ideas, and time. More importantly, the principals should also give proper appreciation towards individual teachers' achievement promptly. The principals should take initiative efforts to promote the school culture that everyone feels valued, respected, empowered, responsible and supportive to achieve the goals of school organizations. This could also be done as individual talk, informal conversation during recess or at lunch.

Conclusion

Based on the above analysis, it is very clear and important for rural schools to have a successful principal leadership, as the principal's leadership could impact student achievement in various ways, so to enhance student achievement to some degree relies on the process and development of principal's leadership. Nowadays, it becomes a vital task for realizing the principal's roles and promote them to be

improved and performed as: the leader of the learner, the leader of the manager, and the leader of the school culture shaper, which are indispensable in enhancing the students' performance and achievement in China's rural areas. Encompassing educational value, belief, principal's leadership, should be regarded as a major hub for contributing the outcomes for the community. Therefore, China MOE and local MOE departments should try to provide more professional training such as principal leadership capacity training, to empower teachers and staff with modern technology, to establish a network of learning, teaching assessment, and resource sharing, and to upgrade students' learning and ability and teachers' adaptability for the better development of the schools.

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A STUDY OF SECOND LANGUAGE MOTIVATIONAL SELF SYSTEM, ENGLISH PROFICIENCY AND GENDER DIFFERENCE OF CHINESE GRADUATE STUDENTS IN TIANJIN UNIVERSITY, CHINA

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Abstract: The current study explored the relationship between second language motivational self-system, English proficiency of Chinese graduate students in Tianjin University, China. The findings showed that the level of ideal L2 self among graduate students was high ($M=3.71$, $SD=0.08$), the level of ought-to L2 self was moderate ($M=3.20$, $SD=0.98$), and the level of L2 learning experience was high ($M=3.50$, $SD=0.88$). The qualitative findings of the first research question were classified in six themes, which are 1) Learning English driven by future career; 2) Learning English for communication need; 3) Entertainment as a motivator for self-study; 4) Learning English to pass examinations or get better grades; 5) Learning English to meet other's expectation; 6) The positive impact of learning context. The research findings of the second research objective revealed a positive relationship ($p < 0.01$) between the ideal L2 self, ought-to L2 self, L2 learning experience, and English proficiency of Chinese graduate students. The findings provided empirical data which could be used to give graduate students appropriate support aimed at inspiring their motivation towards English language learning. Furthermore, the findings are useful to attract more educators and researchers to pay attention to second language acquisition in the Chinese educational context.

Keywords: Second Language Motivational Self-System, English Proficiency, Chinese Graduate Students

Introduction

With China's economic development, China has received significant attention as a superpower country globally. In the meantime, all English learners witness increasing research on English language learning under China context. In terms of the Chinese educational system, the nature of Chinese education is extremely exam oriented. Meanwhile, English is one of the most important subjects for all Chinese students and a significant subject in the university entrance examinations (Taguchi et al., 2009). Most Chinese students learning English aim to pass exams. Under this situation, English teaching and

English learning face a significant challenge since students' learning motivation has been ignored under the Chinese exam-oriented system. Without motivation, English language learning will increase students' learning pressure and restrict students' learning effectiveness (Zeng, 2011). There has been some research about L2MSS in China. Some research has been done with university students, but not much research on graduate students in China (Zhu, 2019). Graduate students have received significant attention from Chinese society with the expansion of academic enrollment in China. This study on second language learning motivation based on the L2MSS theoretical framework focus on postgraduate students in Tianjin city, China. English learning motivation has a crucial impact on graduate students' English learning and academic achievements for Tianjin university students. Under these circumstances, the learning motivation of graduate students should be further studied to provide more valuable suggestions on graduate students' English learning. Therefore, this calls for more research conducted with high educational level language learners within the framework of L2MSS. Through the investigation and data analysis based on L2MSS, the actual situation of graduate students' English learning motivation and the relationships between English proficiency and motivation among Chinese graduate students will be presented.

Research Objectives

1. To explore the levels of ideal L2 self, ought-to L2 self, and L2 learning experience of L2MSS of Chinese graduate students in China.
2. To examine the relationship between ideal L2 self, ought-to L2 self, and L2 learning experience of L2MSS and English proficiency of Chinese graduate students in China.

Literature Review

The learner's learning motivation is a crucial factor that largely determines the success or failure of second language learning. According to Dörnyei (1998), motivation is the fundamental impetus to acquire a second language or a foreign language and motivates to sustain the tedious phases of the long-term learning process. Due to the prominent role of motivation in the field of second language learning and teaching, an increasing number of researchers have been investigating motivation for more than five decades.

As a significant concept in the field of second language learning, motivation has continuously been explored by scholars, and its theoretical conception has constantly been enriched and developed. In the 1950s, the investigation of motivation in foreign or second language learning mainly focused on social psychology. The most influential social psychologists in this field are Gardner and Lambert (1972), who advanced their integrative and instrumental motivation theories. Dörnyei (2005) reformulated motivation in a broader perspective and proposed the "second language motivation self-

system” (L2MSS) theory based on the “self-discrepancy” and the “possible self” theory. L2MSS includes three components: ideal L2 self, ought-to L2 self, and L2 learning experience. Since L2MSS was proposed in 2005, it has attracted more and more researchers to explore the framework of L2MSS. Boo, Dörnyei, and Ryan (2015) indicated that the L2MSS is the most prominent and fundamental theoretical framework in the language field. They clarified the dominant framework in the second language learning field is the L2MSS theory. They also demonstrated that the L2MSS framework could be applied and adapted to different theoretical orientations and perspectives.

Gao and Zhou (2009) indicated that L2MSS successfully explained the limitation of integrative motivation and provided the foundation of further research. The empirical research on this theory has been chiefly carried out in other countries, where its validity and reliability were ensured (Al-Shehri, 2009; Csiz-er & Kormose, 2009; Taguchi et al. (2009). Specifically, Taguchi et al. (2009) investigated Chinese learners whose ages ranged from 11 to 53 with a mean age of 21.1. The findings show how learners’ motivation is influenced by specific context and surroundings, and the L2 ideal self has a significant function among L2MSS. However, Zhu (2019) pointed out L2MSS theory still lacks the support of sufficient empirical research under the Chinese context. Since there is still not much research based on the Chinese context, Liu (2019) calls for more research in China, which can further verify L2MSS theory in Chinese culture and background. From all comparative literature on L2MSS in China and out of China, the findings all reached the same conclusions; all three components have influential functions on learner’s English proficiency (Papi, 2010; Liu F, 2010; Xu Z & Zhang L, 2013; Chen Y, 2019). These studies validated L2MSS in different backgrounds and cultures. Therefore, this study should be contributing to fill the gap on Chinese graduate students, English proficiency within the L2MSS theoretical framework.

Methodology

The research design of the current study was an explanatory mixed-methods research design. According to Creswell (1998), the primary purpose of this design is by employing qualitative data to help explain or build upon initial quantitative results. The explanatory design is a two-phase mixed methods design, which starts with collecting and analyzing quantitative data. This first phase is followed by the subsequent collection and analysis of qualitative data. Secondly, the qualitative phase of the research is conducted and connected to the results of the first quantitative phase. Since this design begins quantitatively, investigators emphasize the quantitative methods than the qualitative methods.

The quantitative study was conducted by employing a 5-level Likert Scale questionnaire to collect quantitative data from the participants. The purpose of the quantitative study was to explore the three components of L2MSS levels of Chinese graduate students; to examine the relationship between the three components of L2MSS and the English proficiency of Chinese graduate students. The

quantitative study was conducted among 354 postgraduate students. Thus, the weight was on quantitative (QUAN) data. After completing the quantitative data survey, the qualitative (Qual) study was conducted with ten postgraduate students. A semi-structured interview was conducted with respondents to mix the findings with quantitative data in the qualitative study. The qualitative data is analyzed to triangulate and mix with quantitative data findings.

Population and Sample

In order to select the subjects, this research employed a convenience sampling technique for quantitative study. The convenience sampling technique is typically employed by collecting data from a conveniently available pool of participants. It is the most commonly adopted sampling technique, which is incredibly prompt, uncomplicated, and economical. The population of this study was postgraduate students from Tianjin University, China, which are both male and female postgraduate students. The postgraduate students have to complete 2.5 or 3 years of the curriculum since 2020, and there are 4,434 postgraduate students in total.

For the quantitative study, the sample size for 4,434 population, rounded up to 4,500 as suggested by Krejcie and Morgan (1970) when sampling error is less than or equals to 0.05 and reliability equals to 95% is 354. Therefore, the sample size of this study was the first 354 postgraduate students including in 170 female Chinese graduate students and 184 male Chinese graduate students who completed the questionnaire and submitted it by Google form from the University of Tianjin. The participants' major is not limited to any different majors such as arts, education, psychology, business, etc. The participants are both male and female postgraduate students.

In terms of qualitative study, the purposive sampling technique was applied. Five male and five female postgraduate students were purposively selected from the first top 5 programs (foreign language and literature, business management, math, electronics engineering, education) in terms of the number of students of the most extensive programs to explore the relationship between English proficiency and three components within the L2MSS theoretical framework qualitatively.

Research Instruments

This research applies both quantitative and qualitative instruments, a questionnaire, and semi-structured interview for the data collection. The questionnaire was used to examine participants' L2MSS, whereas semi-structured interview provides more complementary information within the theoretical framework of L2MSS.

Questionnaire

The English version questionnaire of this study was adopted from Chen (2018), which was designed based on the comparative research of Taguchi et al.'s comparative study among Chinese, Japanese, and Iranian learners of English (2009) and Liu (2010)'s study of L2MSS of English learners in China (2010). Liu's questionnaire was mainly designed for undergraduate and postgraduate students in China with acceptable content validity and reliability. Liu's study explored the motivation among Chinese graduate students. Therefore, the objective of the current study is the same as Chen in terms of Chinese postgraduate and L2MSS; this study adopted Chen's questionnaire. The questionnaire aims to examine the levels of three components of L2MSS and the relationship between three components of L2MSS and English proficiency with different genders in the Chinese context among graduate students.

The questionnaire is composed of two main parts. The first part is mainly about participants' necessary background information, which contains the participants' age, major, gender, and English proficiency level. The second part has 21 items to examine the three components of L2MSS, composed of six items of ideal L2 self, eight ought-to L2 self, and seven items of the L2 learning experience. For the second part, three components of L2MSS were measured by 21 different items.

Interview

A semi-structured interview was conducted in English with postgraduate students from the University of Tianjin, China. Furthermore, the semi-structured interview employed a purposive sampling technique to select male and female participants. The two questions of this semi-structured interview were adopted from the study of Chen (2018) to obtain qualitative data. Interview results are interpreted by using thematic content analysis. The answers were categorized under each key concept and quantified for the data analysis. The quantified qualitative data was applied to interpret data to support the quantitative data and find discussions. To ensure the reliability of inter-coding process of qualitative data, the information from the interview was coded by the researcher and one rater independently. The Pearson correlation was 0.81, which ensured inter-coder reliability between the two sets of data.

Results

Research Objective 1

The quantitative data was collected from the graduate students in Tianjin Normal University to reach the first research objective. By analyzing the quantitative data, the research findings are reported as follows.

To address the first research question: What are the levels of ideal L2 self, ought-to L2 self, and L2 learning experience of L2MSS of Chinese graduate students in China? The 5-point Likert Scale questionnaire results with 21 items are demonstrated by computing the samples' mean score (M) and the Standard Deviation (SD). The descriptive statistics of graduate students' L2MSS are reported in Table 1. According to the evaluation criteria, it was found that the level of the ideal L2 self among graduate students is high, the level of the ought-to L2 self is moderate, and the level of the L2 learning experience is high.

Table 1: Descriptive Statistics of Student's L2MSS Level (N=354)

	N	Min	Max	Mean	SD	Interpretation
Ideal L2 self	354	1.16	5.00	3.71	0.90	High
Ought-to L2 self	354	1	4.87	3.20	0.98	Moderate
L2 learning experience	354	1.14	5.00	3.50	0.88	High

Furthermore, the qualitative findings of the first research question were classified into six themes, which are 1) Learning English driven by future career; 2) Learning English for communication needs; 3) Entertainment as a motivator for self-study; 4) Learning English to pass examinations or get better grades; 5) Learning English to meet others' expectations; 6) The positive impact of learning context. Table 2 presents the qualitative findings of the first interview question mixed with the first quantitative results.

Table 2: Mixing Data of Levels of the Three Components of L2MSS

Quantitative Results	Mixed with Qualitative Results
High level of ideal L2 self	Theme 1: Learning English is driven by future career Theme 2: Learning English is for communication need Theme 3: Entertainment as a motivator for self-study
Moderate level of ought-to L2 self	Theme 4: Learning English to pass examinations or get better grades Theme 5: Learning English to meet other's expectations
High level of the L2 learning experience	Theme 6: The positive impact of learning context

The classified answers to the first interview question are presented in Table 3 with frequency and percentages.

Table 3: Frequency and Percentages of the First Interview Questions

Categories	Frequency	Percentage
Ideal L2 self (Theme 1,2 and 3)	7	53.84

Ought-to L2 self (Theme 4 and 5)	5	38.46
L2 learning experience (Theme 6)	1	7.69

According to Table 3, 7 or 53.84% of students mentioned or expressed that ideal L2 self are their main forces towards English learning. Moreover, 5 or 38.46% of students mentioned or expressed ought-to L2 self are their main forces towards English learning. Additionally, 1 or 7.69% of students mentioned or expressed L2 learning experience are their main forces towards English learning.

Research Objective 2

To address the second research question: What is the relationship between the 3 components of L2MSS (ideal L2 self, ought-to L2 self, and L2 learning experience) and English proficiency of Chinese graduate students in China? The second research question examines the relationship between the 3 components of L2MSS and the English proficiency of Chinese graduate students in China. The Pearson correlation analysis is computed to testify the relationship between the 3 components of L2MSS and the English proficiency of Chinese graduate students. Pearson correlation is utilized three times to examine the relationship between English proficiency and each component in L2MSS.

According to the results of Pearson correlation analysis, there is a positive relationship between ideal L2 self, ought-to L2 self, L2 learning experience, and English proficiency among Chinese graduate students. Table 4 provides more details of the relationship between the three components of L2MSS and English proficiency.

Table 4: Relationship Between Three Components of L2MSS and English Proficiency

		English Proficiency
Ideal L2 self	Pearson Correlation	.738**
	Sig. (2-tailed)	.000
	N	354
Ought-to L2 self	Pearson Correlation	.655**
	Sig. (2-tailed)	.000
	N	354
L2 Learning Experience	Pearson Correlation	.729**
	Sig. (2-tailed)	.000
	N	354
L2MSS	Pearson Correlation	.765**
	Sig. (2-tailed)	.000
	N	354

 **. Correlation is significant when $p < 0.01$

A significant positive relationship between the three components of L2MSS and English proficiency is presented in table 4.7, demonstrating the correlation between students' three components of L2MSS and English proficiency is 'high degree.' Additionally, the Pearson correlation test has statistical significance since $P < 0.01$.

Moreover, the qualitative data of research questions 2 was classified into six themes, there are 1) The positive influence of self-desires on English Learning motivation; 2) Learning English has positive impacts on future career and communication; 3) Motivation can be improved by entertainment self-study; 4) The influences of the surroundings on English learning; 5) English learning can be motivated by positive learning context. Table 5 presents the qualitative findings of the second interview question mixed with the quantitative results.

Table 5: The Mixing of Qualitative Findings of the Second Interview Question

Quantitative Results	Mixed with Qualitative Results
The positive relationship between the ideal L2 self and English proficiency	Theme 1: The positive influence of self-desires on English Learning motivation Theme 2: Learning English has positive impacts on future career and communication Theme 3: Motivation can be improved by entertainment self-study
The positive relationship between the ought to L2 self and English proficiency.	Theme 4: The influences of the surroundings on English learning
The positive relationship between the L2 learning experience and English proficiency	Theme 5: English learning can be motivated by a positive learning context

The classified answers to the second interview question are presented in Table 6 with frequency and percentages.

Table 6: Frequency and Percentages of the Second Interview Questions

Categories	Frequency	Percentage
Ideal L2 self (Theme 1, 2 ,3)	8	53.33%
Ought-to L2 self (Theme 4)	3	20%
L2 Learning Experience (Theme 5)	4	26.66%

According to table 6, 8 or 53.33% of students mentioned or expressed that the ideal L2 self positively influences English language learning. Moreover, 3 or 20 % of students mentioned or

expressed that ought-to L2 self impacts English learning. Additionally, 4 or 26.66% of students mentioned expressed that L2 learning experience positively influences English language learning.

Discussion

According to the quantitative findings, the level of ideal L2 self among graduate students was high, the level of ought-to L2 self among graduate students was moderate, and the level of L2 learning experience among graduate students was high. The findings are also associated with previous researches. Csizér and Kormos' study (2009) reported the level and effect of the ideal L2 self and ought-to L2 self and L2 learning experience among secondary school students and university students in Hungary. The main findings in the research also claimed that the level of the ideal L2 self and L2 learning experience is vitally essential for English learners. However, the function of ought-to L2 self to regulate students' learning behavior is comparatively weak. Also, Wei (2013) researched 316 non-English university students; the research finding also reported that the level of ideal L2 self and L2 learning experience are high while significantly influencing motivating learning behavior. The ideal L2 self has a crucial influence on postgraduate students, which gives them a strong learning motivation on English learning; in that way, the learner will make more efforts to narrow the gap between the real self and the ideal self. It is consistent with integrative motivation and internal instrumental motivation. The results align with Csizer and Kormos' research (2014), which indicates that the students' visions are the basic crucial supports for autonomous learning as a competent second language user. As postgraduate students, most students already have clear goals and career plans for the future, and they are stimulated to study English with effective plans. According to Dörnyei: "the vision of who they would like to become as second language users seems to be one of the most reliable predictors of their intended long-term effort" (p.12). Lyons's research (2014) also pointed out that learning motivation can be motivated by employing the future career vision by using the language as a foundation of real goal-oriented learning behaviors. Therefore, postgraduate students' future self-images are closely related to their English learning as strong motivators, which guide them to study hard. English learning is necessary and crucial in order to get a better work opportunity in the future. Besides, the high ideal L2 self can be explained by a desire for self-development in terms of English study.

On the contrary, the ought-to L2 self cannot influence learning motivation much. Passing exams and getting better grades is in line with the specific nature of the Chinese educational system, which is extremely exam oriented. Meanwhile, English is one of the most important subjects for all Chinese students and a significant subject in the university entrance examinations (Taguchi et al., 2009). Even though postgraduate students have already passed the university entrance examinations, they have been influenced to learn English. Under this situation, most Chinese students' learning English aim is to pass exams, which explains the moderate ought-to self among Chinese postgraduate students.

According to Chen (2019), the paper also pointed out Chinese students' ought-to L2 self is highly influenced by the pressure from parents and family in China. However, Chinese students' English learning was inspired by getting better grades regarding ought-to L2 self. Especially, the college entrance examination is the most stressful exam for every Chinese student. As postgraduate students, they have been experienced the entrance exam, so there is less pressure for them. English learning is not compulsory for them, so the ought-to L2 self is at moderate level instead of high level. Furthermore, the moderate ought-to L2 self is also connected with the nature of adult learners. Postgraduate students as adult learners already have strongly built their learning styles and preferences, and adults are more strongly motivated by internal pressures than external rewards.

Moreover, the findings indicated that creating a better learning context can positively impact postgraduate students' English learning associated with the L2 learning experience. The finding also aligns with Csizer and Kormos's (2009), which indicate L2 learning experience can motivate students' learning behavior. Furthermore, teachers, peers, and class materials significantly impact their English learning. For postgraduate students, they have more optional classes instead of compulsory classes. In that case, they can choose their preferred learning material or subjects; the learning environment is better and more favorable for postgraduate students.

In summary, there is a high level of the ideal L2 self of L2MSS among Chinese graduate students, a moderate level of the ought-to L2 self of L2MSS, and the high level of the L2 learning experience of L2MSS among Chinese graduate students in China.

The finding presented that there is a high positive relationship between the 3 components of L2MSS and the English proficiency of Chinese graduate students in China. The quantitative findings are also associated with previous studies. Liu (2010) conducted a large-scale investigation that verified a positive correlation between the ideal L2 self ought to L2 self and L2 learning experience with English proficiency, especially for high-level learners. Their ideal L2 selves are the best predictors of English proficiency. The ideal L2 self can work as the future self-guide to maintain and stimulate students' English learning motivation. To be more specific, the ideal L2 self can predict whether the learner wants to become someone in the future who is fluent or proficient in the target language or not (Dörnyei, 2009). Therefore, the ideal L2 self is a very influential factor of English proficiency within the framework of L2MSS. Based on the theory of L2MSS, second language learning motivation can predict second language proficiency, which is in line with Dörnyei and Chan (2013)'s research. The research finding revealed that students' English proficiency positively correlates with the ideal L2 self. Furthermore, the finding also indicated that the ideal L2 self is the best predictor with intended efforts and English proficiency, which is consistent with the majority of past researches (Csizér & Kormos, 2009; Csizér & Lukács, 2010; Taguchi et al., 2009). According to Sun Lei and Lv Zhongshe (2014), the ideal L2 self can maintain or inspire students' learning motivation when the learners have a

reachable goal of their ideal selves. Most postgraduate students always have clear goals or visions for the future. During the interview, the participants expressed the positive impacts of learning English which is a great help for their future careers. Based on Dörnyei (2009), the ideal L2 self is a necessary motivator as students' future guide to accomplish or achieve their goals. Therefore, the ideal L2 self has a strong positive relationship with English proficiency among graduate students since they have clear visions and goals for their future.

The ought-to L2 self has a crucial influence on English proficiency among Chinese postgraduate students, which is influenced by the Chinese educational system. Chinese education's nature is exceptionally exam-oriented in the Chinese educational system. Meanwhile, English is one of the most important subjects for all Chinese students and a significant subject in the university entrance examinations (Taguchi et al., 2009). Most Chinese students learning English aim to pass exams, which is highly related to theme 4: The influences of the surroundings on English learning. During the interview, the participants expressed the importance of learning English to pass exams. According to the interviews of several English graduate teachers in China, more and more graduate students are not motivated to learn English since learning English for graduate students is only a way to pass stressful exams. Under the special circumstances in China, passing exams is highly associated with people's expectations since grades are the only standard to judge students' academic achievements. The surroundings influence Ought-on L2 self and the outside world for Chinese graduate students, matched with the people's imagined expectations. Theme 4 is also under the influence of the Chinese educational system. Most students are motivated to learn English to meet other people's expectations.

The L2 learning experience has a crucial influence on English proficiency among Chinese postgraduate students, under the influence of comparatively and flexible learning context for Chinese postgraduate students since they have already passed the college entrance exams. They are free to choose their class curriculum as postgraduate students. The L2 Learning experience is related to learners' learning situations and experiences, such as the influence of the teachers, the curriculum, and the learning experience. The key point of the L2 learning experience is to possess a great executive function and a mediating influence on the effects of future self-guides (Papi, 2010). The finding is in line with Dörnyei (2009): the purpose of learning a second language does not originate from internal or external self-images for some language learners but from the actual language learning process. A special sample of the L2 learning experience is "how do you feel about your English classrooms" among postgraduate students. Furthermore, postgraduate students' learning contents and curriculum are more accessible and flexible because they can choose what they study or research.

Conclusion

The current study explored the relationship between second language motivational self-system, English proficiency of Chinese graduate students in Tianjin University, China. This study took the form of an explanatory mixed-methods research design. The findings provided empirical data which could be used to give graduate students appropriate support aimed at inspiring their motivation towards English language learning. Furthermore, the findings are useful to attract more educators and researchers to pay attention to second language acquisition in the Chinese educational context.

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EXPLORING ATTITUDES OF ENGLISH LANGUAGE TEACHERS IN A PRIVATE UNIVERSITY IN THAILAND TOWARDS VISUAL LITERACY

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Abstract: The objectives of this study were 1) to explore attitudes of university teachers in one private university in Thailand towards visual literacy in English language teaching; 2) to explore perceived behaviors of university teachers in one private university Thailand regarding visual literacy application in English language teaching. This study took the form of a cross sectional survey using a questionnaire to collect both quantitative and qualitative data from 56 English teachers in a private university in Thailand. The findings revealed that the overall attitude of respondents of the selected university towards visual literacy in English language teaching is at a high level. The mean of the teachers' overall attitude towards visual literacy is $M=3.41$ and the SD is 0.21. However, this moderately high positive attitude is not reflected in their teaching behavior. Data analysis indicated the respondents are only average in their behavior of visual literacy application. Their behavior falls in the average zone with where $M = 3.2$ and an $SD = 0.05$. The findings suggested that some teachers lack knowledge and skills regarding visual literacy and therefore were not comfortable using it, while others felt visual literacy to be too time consuming. A few teachers also expressed the belief that visual literacy was not appropriate for students at high levels of English language learning.

Keywords: Attitude, English Language Teachers, Visual Literacy

Introduction

In today's highly digital visual world, visual media has become an integral part of learning because it is a tool with which people communicate and exchange ideas. Students constantly encounter and create meaning and knowledge through images. They are exposed to a vast quantity of visual imagery such as billboards, photographs, television, videos, maps, memes, digital stories, video games, timelines, signs, political cartoons, posters, flyers, newspapers, magazines, movies, DVDs; not to mention, the numerous social media platforms such as Facebook, Twitter, Instagram, and Reddit which is abundant with visual media. According to Gangwer (2016), in his article "Learning Differences", 65% of people in the world are visual learners. Consequently, it is very likely that 65 % of students will be visual learners. Yet, most teachers still rely on text for instruction without using visual support to

make learning easier. Gangwer advocated that student learn best from visual stimulation accompanied by active learning strategies. He affirmed that teachers need to employ techniques and technology that will prepare students for the visual world in which they will live and work. To teach students to be visually literate, teachers need to be visual teachers (Gangwer, 2016).

Given that most learners are visual learners, it makes sense that students need to be taught to be visually literate. Therefore, visual literacy is an important component which needs to be integrated into today's classroom teaching. Teachers need to prepare students to be able to comprehend and interpret beyond just written text. Visual literacy - the ability to read, write and create visual images - has become an essential learning skill in the 21st century.

Research Objectives

1. To explore the attitudes of university teachers in a private university in Thailand towards visual literacy in English language teaching.
2. To explore the perceived behaviors of university teachers in a private university Thailand regarding visual literacy application in English language teaching.

Literature Review

Theoretical Framework

The focus of this study is to explore attitudes of English language teachers. Therefore, the theoretical framework is based on Van Alderen-Smeets (2011) framework of attitude that she used in her study of primary teachers' attitude towards teaching science. Alderen-Smeets defined attitude as an individual's perception towards something that results from a combination of the individual's cognitive beliefs, affective states, and perceived control. All these three components will interact and lead to behavior outcomes.

Aalderen-Smeets (2011) explained that a person's cognitive belief consists of the evaluative thoughts and beliefs that he/she has about the attitude object (Alderren-Smeets, 2011). Flanders, Fishbein, and Ajzen (1975) stated that the cognitive component of attitudes refers to the beliefs that an individual associates with an object. It can be compared to the general knowledge that an individual has. Beliefs are generally defined as convictions that individuals have in their minds which they regard to be true. Beliefs can play a part in determining behavior (Flanders, Fishbein, & Ajzen, 1975).

Affective state is a person's feelings and emotions towards an attitude object. The affective state works alongside the cognitive beliefs to form an individual's attitude. Verbal affective responses

can be expressions of admiration or disgust, appreciation or disdain, like or dislike. Nonverbal affective responses can be seen in facial expressions and other bodily reactions (Ajzen, 1988).

The concept of self-efficacy is defined as a person's beliefs about his/her ability to perform a certain action, which is based on internal factors such as knowledge, confidence, and skills. It is like self-confidence, and the two concepts have often been used interchangeably. It is influenced by previous experiences such as successes and failures, and by feedback (Aalderen-Smeets, 2011).

According to Van Alderen-Smeets' (2011) theoretical framework, these three components – cognitive, affective, and perceived control – combine to create a person's overall attitude which will then lead to some form of action or behavior. Wicker (1969) explains that behavior is a verbal or nonverbal response by an individual and it consists of actions or observable responses that are the result of the individual's attitude. It involves some physical response (favorable/unfavorable) from the individual towards the attitude object.

The following figure demonstrates the conceptual framework applied in this study, as based on Van Alderen-Smeets' (2011) theoretical framework.

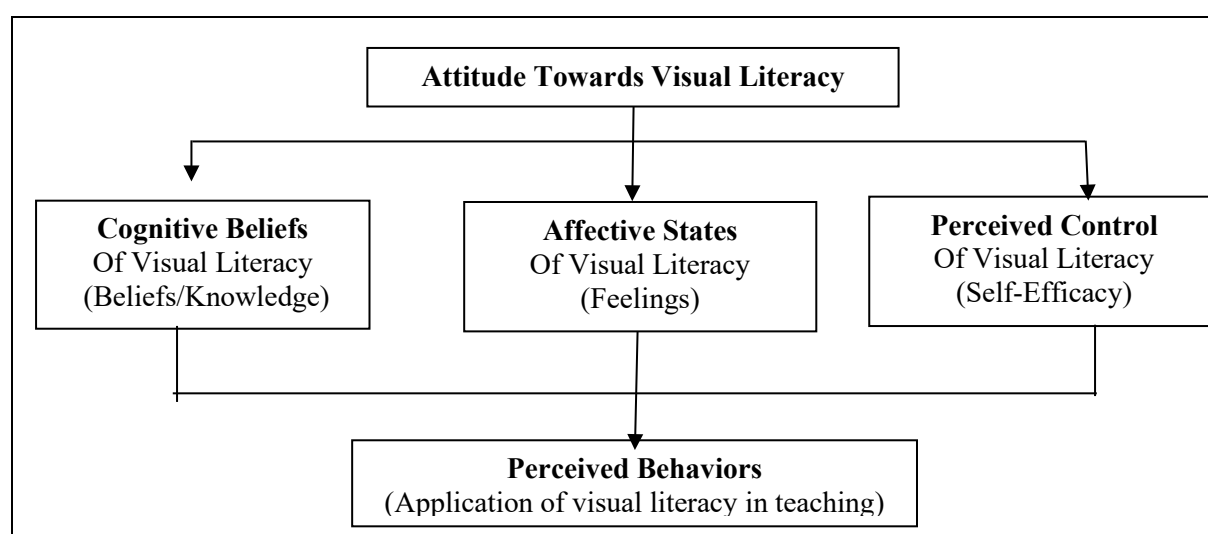


Figure 1: Conceptual Framework

As depicted in the above framework, attitude has three components - cognitive beliefs, affective states, and perceived control. Any information or facts we have about objects is the cognitive component. Based on knowledge and belief about an object, individuals will form feelings of like or dislike towards the object – these feelings are the affective component. An individual's confidence in his/her ability to do something successfully is the perceived control which will strongly influence his/her behavior. Based on the information, feelings, and self-confidence that an individual has towards the object, he/she will act towards the object in a specific way – this is the behavior output. These three

components – cognitive, affective, and perceived control – combine to create a person’s overall attitude which will then lead to some form of action or behavior (Alderen-Smeets, 2011).

Methodology

This study took the form of a cross sectional survey which is a type of survey that gathers data from a certain point in time from a pre-selected population. The participants were selected due to certain characteristics that fit the objective of the research. The setting of the study is in the department of Institute for English Language Education at a private university in Thailand.

Population and Sample

The population was approximately 80 teachers teaching English in the Institute for English Language Education in a private university in Thailand. Data was collected via an online questionnaire hosted on Google Forms. The survey link was sent to a population of about 80 teachers in this institute and the sample size was 56 since that was the number of surveys that were completed and returned.

Research Instruments

This study employed both quantitative qualitative research instruments namely Likert scale response questions, yes-no response style questions, and five open-ended questions to collect data. The survey was broken into 3 parts - part 1: teachers; background information (including yes-no responses), part 2: Likert scale questions, and part 3: Open ended response questions.

Part 1: Teachers background information

This section is in part I of the survey which enquired about the participant’s education as well as teaching experience. The yes-no questions enquired about the participants’ formal learning of visual literacy to determine each participants’ knowledge and exposure to visual literacy. Participants selected an affirmative or negative response. This helped the researcher to determine how much prior knowledge each individual had regarding visual literacy, where upon further analysis can help to conclude these participants’ attitudes based on prior experience or lack thereof.

Part 2: Likert scale response questions

These questions served to answer research questions 1 and 2. The questions used in this research were adapted from Robertson’s questionnaire in her research (Robertson, 2007). Robertson’s questionnaire was designed to explore secondary teachers’ attitudes, understanding, and application of visual literacy in their English language classes.

Part 3: Open Ended Questions

Five open-ended questions were included as follow up questions to help provide additional data to research questions 1 and 2. These open-ended questions allowed teachers the freedom to voice any

additional ideas or opinions regarding visual literacy in English language teaching that may have not been addressed in the questionnaire. The questions asked teachers to comment on their personal knowledge, feelings, motivation, and confidence, as well as their current inclusion of visual literacy instruction. The benefit of open-ended questions is that participants can offer more elaboration or details on their attitudes without limiting their scope and ideas.

Results

Research Objective 1

The quantitative findings from the Likert-scale questions were presented to answer research objective one. To answer research objective one: *to explore attitudes of university teachers in one private university in Thailand towards visual literacy in English language teaching*, the results of the five-point Likert scale items were analyzed to find the mean score (M) and stand deviation (SD). The data analysis shows that the overall attitude towards visual literacy is moderately high (M = 3.41, SD = 0.21).

Table 1: Attitude of Respondents towards Visual Literacy

Attitude Component	Mean	SD	Interpretation
Cognitive	3.58	0.05	Moderately High
Affective	3.21	0.04	Average
Perceived Control	3.45	0.07	Moderately High
Total overall attitude:	3.41	0.21	Moderately High
N = 56			

Table 1 shows the mean of respondents' attitudes as broken down into the separate components of attitude, as well as the overall attitude. The cognitive component ranks the highest, followed by perceived control, and lastly affective. This means the respondents' have a high level of cognitive beliefs (M = 3.58, SD = 0.05), while their confidence in teaching visual literacy is also on the high end (M = 3.45, SD = 0.07). The affective state or feelings towards teaching visual literacy has the lowest mean of all three components (M = 3.21, SD = 0.04), which puts it in the interpretation range of average. This means the respondents' feelings are on the neutral side, neither positive nor negative in their affective attitude. However, the mean of the overall attitude, which is inclusive of all 3 components has an interpretation of moderately high (M = 3.41, SD = 0.21), meaning that overall, this sample population has a moderately high or moderately positive attitude towards visual literacy.

Research Objective 2

Research objective 2 was to explore the perceived behaviors of university teachers in a private university Thailand regarding visual literacy application in English language teaching. Figure 2 shows the perceived behavior of the surveyed teachers regarding visual literacy application.

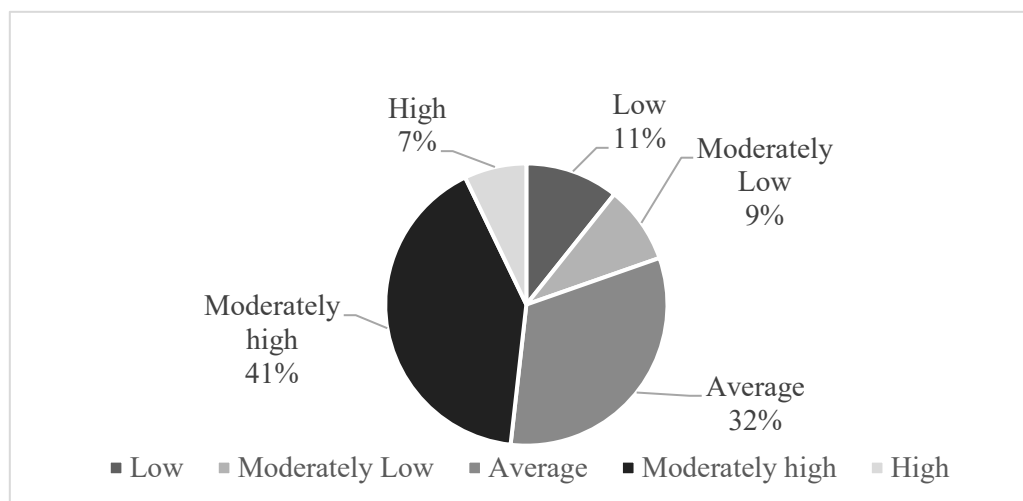


Figure 2: Behavior of Respondents Regarding Visual Literacy Application

As can be seen from figure 4.3, 41% of respondents' behavior falls in the moderately high range and 7 in high, totaling 48% of high-level application of visual literacy, which indicates that these individuals are quite active in their application of visual literacy in their teaching of English language. Responses indicate that 32% demonstrate an average level of visual literacy application in their teaching, which can be interpreted as using it sometimes, but not regularly or as actively as those in the 48%. The remaining 20% of respondents' responses put them in the moderately low and low group, indicating that they do not often or rarely use visual literacy in their teaching. In conclusion, most respondents (52% - combined from average, moderately low, and low) are not active in their application of visual literacy. There are slightly more respondents (52%) who do not apply visual literacy actively in their classrooms than those that do (48%).

Discussion

With regards to objective one – to explore attitudes of university teachers in one private university in Thailand towards visual literacy in English language teaching – the data revealed that the respondents' overall attitude towards visual literacy in English language teaching is moderately high or in other words moderately positive. Most of the respondents (68%) realized the value of visual literacy as an effective means to develop English language skills. In the cognitive component, the participants were in high agreement with the concept of including visual literacy as a component to enhance English

language learning. Analysis of the quantitative section of the questionnaire revealed that the mean of the cognitive component of attitude is 3.58 with a low standard deviation of 0.05 indicating that the same beliefs about the importance of visual literacy are shared among the population sample. Correspondingly, most teachers responded in the quantitative section of the questionnaire that they agree that visual literacy plays an important role in helping students understand difficult concepts in English, helps in learning vocabulary, stimulates ideas for speaking and writing, and helps in overall English language development. Individual comments from the qualitative part of the questionnaire support this belief. Teachers reported that they have the cognitive belief that visual literacy is ‘important’, ‘useful’, and ‘effective’ in teaching English. Even those who admitted to not including visual literacy much in their instruction agreed about its value and contribution to English language learning.

This belief about the value of visual literacy to English language teaching was also observed in a study by Suryanto (2014) who established that visual literacy components integrated into English language teaching enhances the student’s English language achievement. This is further supported by Phanthapongtam and Charumanee’s (2019) study in Thailand which experimented with two reading groups and reached the conclusion that the reading group taught using visual literacy performed better than the group that was not. Thus, they concluded that visual literacy is effective in teaching English reading and critical thinking to Thai students (Phanthapongtam & Charumanee, 2019)

With regards to objective two – to explore behaviors of university teachers in one private university Thailand regarding visual literacy application in English language teaching – findings from the quantitative section of this research indicate that less than half of the participants were actively applying visual literacy in their English teaching. All 10 questions concerning the behavior of the respondents regarding their use of visual literacy in teaching received an average agreement - not a single item received a rating of above average. The teachers were only using visual literacy at a mediocre level. This is an interesting finding and contrary to what might be expected since the data showed the overall attitude towards visual literacy to be moderately high. It would seem logical to assume that if attitude is high or positive, then behavior should correspondingly be high. However, this was not the case among this population sample.

The results of this study echo findings from prior research conducted by Robertson (2007). Robertson’s study revealed the same results, that despite teachers’ agreement of the importance and effectiveness of visual literacy, they were not actively applying visual literacy in their classroom. Open ended responses from the qualitative section of this study reveal that time and content seem to be factors obstructing teachers from using visual literacy. When asked about their application of visual literacy, some respondents explained that they were worried about the amount of content they had to cover and with the limited time they had to cover so much material, they felt they did not have time to use visual

literacy in their instruction. Robertson, likewise, reported similar findings, stating that the teachers cited lack of time, training, materials, and equipment as reasons for not including or applying visual literacy in classrooms (Robertson, 2007).

Conclusion

Teachers teaching English in the private university that were surveyed have a moderately high level of attitude towards visual literacy. They acknowledge the value and importance of visual literacy in teaching English. They agree that visual literacy enhances vocabulary development and comprehension and is beneficial in developing skills in speaking, reading, writing, and listening.

Regarding the teachers' visually literacy application, the research revealed that less than half of the respondents were actively applying visual literacy to the English teaching. This seems in keeping with the data that was discovered concerning their lack of formal learning regarding visual literacy which may be the reason for their lack of confidence. Other factors for the low average level of visual literacy inclusion were time constraints and the amount of material required to be covered, coupled with the belief that visual literacy is only useful at the beginners' level of English language learning.

Since the study is based specifically on English language teachers at this university, it would be helpful for the department to know if their teachers need professional development regarding teaching visual literacy and in what specific areas of visual literacy would they need support. Training and professional development can then be provided to teachers as needed. Action can be taken to improve or support these teachers in their knowledge and application of visual literacy. The findings of this research can help national education institution and private University administrators decide whether to train current teachers and prospective teachers regarding visual literacy.

At the individual level, it may help teachers be aware of their own weakness regarding teaching visual literacy and prompt them to seek professional development or adjust their teaching to include more visual literacy skills which will help to improve their students' English proficiency.

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THE DEVELOPMENT OF A STRATEGY TO IMPROVE CRITICAL THINKING OF MUSIC MAJOR STUDENTS IN HIGH EDUCATION IN HENAN PROVINCE, CHINA

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Abstract: This paper tried to explore the effective strategies to improve the critical thinking ability of music majors based on systematic literature review, as it is found that language activities significantly improve students' critical thinking. Combined with the content and characteristics of the music curriculum, this paper puts forward four strategies: 1). The teaching content, combined with the music and cultural background, provides students with corresponding literary works, and carries out literary courses or activities. 2). Organize students to debate relevant artistic and cultural content. 3). Respect students' independent views, accept and value students' feedback, and encourage them to question and criticize their views in class. 4). Literature teachers should keep in touch with music teachers and invite literature teachers to participate in music classes. Through the interweaving of different cultural perspectives, the expression of debate activities, increasing the opportunities for independent thinking and expression, and the cooperation of interdisciplinary teachers, we can stimulate and shape the critical thinking of music majors.

Keywords: Critical Thinking, Music Teaching, Literature Course, High Education.

Introduction

Title Critical thinking is not only an important learning and innovation skill in the 21st century (Bellanca, 2010). It is also a key skill and behavior shared by all effective leaders, and critical thinking is the basic theory of learning various thinking processes and practicing in various situations to master its application skills (McVey, 1995). In the field of international education, critical thinking ability is a necessary skill for students to enter university. Standardized tests such as TOEFL and IELTS, which assess the relationship between concepts in a paragraph, are all used to examine students' critical thinking skills, including conceptualization, analysis, and confirmation of arguments (Haase, 2010).

Chen (2017) pointed out that critical thinking ability is the key ability to solving problems in complex situations. The development of critical thinking ability in higher education is of great significance for students to cope with the challenges of the future society. High education is different

from middle school education, its main function is to cultivate students' independent learning ability. In the university stage, if students can form critical thinking, it will greatly help and promote their future academic study and work. However, China's education system increases the complexity of the use of critical thinking ability, and the education structure and related policies are restricted. China's higher education curriculum is strictly regulated by the state, which has become one of the main obstacles to the development of independent and critical thinking of Chinese college students, especially in the fields of art, humanities, and social sciences (Zhang, 2017).

As China's higher education attaches importance to the planning and development of quality education, college music education has also carried out a series of reforms. Music is a comprehensive subject that contains many aspects of knowledge. Music education in colleges and universities should cultivate students' music performance ability and theoretical knowledge and pay attention to the improvement of students' artistic aesthetic ability, music humanistic spirit, and cultural quality. Among them, the application of critical thinking ability is particularly important. However, the cultivation of thinking ability is mainly based on language and text communication. Although music is described as a language without words, the particularity of the music curriculum is mainly in the form of listening, feeling, imitation, and performance, which lacks the opportunity to shape thinking ability in terms of language. And higher music education, belonging to the category of multicultural education, music majors need to contact more music and cultural background knowledge. To strengthen students' learning of music background knowledge and cultural connotation, we should join a world literature appreciation course closely related to professional learning while studying music. In the learning process of this course, teachers should set up links of thought exchange and debate with the help of literature and language to fully mobilize students' thinking ability, which will be an effective way for Chinese higher music education to cultivate students' critical thinking ability.

This paper focused on several music colleges of higher education in Henan Province of China. Starting from the background of multicultural education and based on literature courses, this paper discusses the effective strategies to improve the critical thinking ability of music majors.

1. Critical Thinking in Education

1.1 Concept of Critical Thinking

Critical thinking is a form of intelligence that can be taught. Robert Ennis divides critical thinking into four parts (Hunkins & Ornstein, 2016), including: ask appropriate questions to clarify or challenge; Judge the credibility of the source; Solve problems and conclude. Pogonowski (1989) pointed out that critical thinking includes thinking processes, strategies, and representations used by people to solve problems, make decisions, and learn new concepts. Qian (2020), Dean of the school of

economics and management at Tsinghua University, points out two major characteristics of critical thinking. First, critical thinking is good at questioning and challenging generally accepted conclusions. Second, critical thinking is an analytical, creative, and constructive way to put forward new explanations and judgments to questions and challenges.

Critical thinking helps people to analyze and evaluate these huge amounts of content to determine what is wrong and misleading. Therefore, critical thinking is not only a process of seeing things rationally and clearly but also an independent process of forming opinions on people, things, and things. Critical thinking should be taught interdisciplinary from primary school to higher education. Educators themselves must be critical thinkers. In each case, the teaching objectives must be at a certain level in the higher cognitive field. Educators must challenge students' future-thinking model (Woodford, 1996).

1.2 Lack of Critical Thinking in China's Higher Education

China's higher education has always advocated paying attention to the cultivation of critical thinking ability, and that is "one of the core objectives of China's higher education" (Wen Rong, 2020). But the actual situation is not satisfactory. According to 2012, China sat annual report, only 7% of Chinese high school students who took part in the SAT achieved the "pass line". Xia Guming, a member of China's National Committee of experts on basic education curriculum and teaching materials, commented: "This is because China's education lacks the training of critical thinking. Chinese students' rote learning ability is better than their counterparts in Europe and the United States, but their critical thinking ability is inferior to that of them." (Hu, 2012). In his study, Prashant loyal investigated the critical thinking abilities of first - and third graders in three countries: China, Russia, and the United States. The conclusion is that among the first-year students, Chinese students are the best in the three countries; however, the performance of Chinese third graders is not as good as that of freshmen, while the performance of third graders in the other two countries is better than that of freshmen (Qian, 2020).

This shows that China's university education not only has not contributed much to students' critical thinking but also has some inhibition. Chinese students are far ahead of the rest before they enter university. But the ability to critical thinking lost its advantage in college. There is a gap between the ideal goal and the actual situation of cultivating students' critical thinking ability in China's higher education. Therefore, Chinese education researchers and administrators must pay enough attention to and make clear their ideas (Liu, 2017). Under the constraint of system education, they should look for new ways and methods of teaching, to provide more opportunities for college students to shape their critical thinking ability (Zhang, 2017).

1.3 Critical Thinking in Music Education

Music education can not only develop music skills, but also personal social skills, problem-solving ability, cognitive ability, critical thinking tendency, skills, and academic achievements (Topoglua, 2013). In the theory of multiple intelligence put forward by psychological developmental scientist Howard Gardner in 1983, he pointed out that musical intelligence has a very important influence on human memory, image, abstraction, and creativity. Although music education has the effect of shaping students' abstract thinking and creativity, for a long time, music teaching often pays attention to the training of music's basic knowledge and basic skills. The teaching content of music courses is only to complete the established teaching objectives and teaching tasks and lacks the process of cultivating students' critical thinking through music learning. In the long run, students' thinking of music learning will become rigid and rigid, and they can only understand the shallow meaning of music in learning (Liu, 2016).

Music courses in higher education are mainly about feeling, imitating, listening, practicing, singing, and playing. As mentioned by Small (1989), the understanding and learning of music are all through listening and distinguishing to solve behavioral problems. This way of learning is extremely limited to the shaping of thought and language. Music majors need students to learn music works from different cultural backgrounds and have certain critical thinking to understand and recognize. However, there is a certain degree of cognitive impairment in the process of music learning without the communication of words and more cultural content. Since music major in higher education is a process of multi music learning, critical thinking ability is needed to support the cultivation of a multicultural view of music.

Through the music curriculum of several colleges and universities in Henan Province (Conservatory of music of Henan University, The faculty of music of Zhengzhou University, and The faculty of music and dance of Henan Normal University), the author finds that among the three universities representing the highest level of music education in Henan Province, there are only elective courses such as the history of music development and the history of instrument development, and there are no other courses related to music culture and language. After that, the author interviewed the teachers at music colleges of three universities in Henan Province, and the teaching methods did not pay attention to the shaping of critical thinking ability, and there was no evaluation and inspection of critical thinking ability in the music teaching evaluation of the school. It is not enough to shape the thinking ability only by studying music. It is necessary to provide more opportunities for students to use language and express their ideas. Moreover, a music major is a multicultural education environment, and they should also provide students with multicultural learning ways. Pogonowski (1989) points out that students who use traditional, pure theoretical methods to solve music problems are missed the opportunity to develop critical thinking skills.

Critical thinking should not be achieved through a specific course on the subject but must be achieved through interdisciplinary integration and integrated into each course. Therefore, not all music classes can develop students' critical thinking ability (Young, 1980). For this reason, it is necessary to make some reasonable programs to create a suitable environment for learning. In the music college of Henan higher education, music teaching should not only stay at the level of knowledge learning but also cultivate people through music major and related knowledge. It is necessary to find opportunities to improve students' critical thinking ability in the education content of music majors, to supplement the deficiency of music teaching in the form of language and words (Zhang, 2017).

A world literature course is generally a required course for language majors in higher education. Both Chinese literature and foreign literature provide students with rich language experience and cultural learning. Literary works often have a strong connection with culture and society, which makes students form a comprehensive and extensive knowledge system. As the famous French literary theorist Hippolyte Adolphe Taine pointed out, "to understand a work of art, an artist, we must correctly imagine the spirit and customs of the times they belong to. This is the final explanation of art and the basic principle of everything (Wen, 2020). Works of art often reflect the cultural environment and social background of a period.

To cultivate students' speculative consciousness, the professional study is not enough. It is necessary to enhance students' humanistic knowledge. This kind of humanistic knowledge quality comes from students' comprehensive reading and understanding of literature and art, values, historical philosophy, religious beliefs, and so on (Wen, 2020). The world literature course not only provides students with access to multi-cultural but also has been an effective way for literature teachers to improve students' thinking ability. The simultaneous presentation of pluralistic and open views can imperceptibly guide students to form different views on problems, thus forming a three-dimensional, pluralistic and open thinking, which is the basis of critical thinking (Li, 2020).

Some teachers of British and American Literature in some universities should actively and comprehensively consider the cultivation of students' critical thinking ability in terms of teaching content, curriculum design, and teaching activities. The teaching goal of the course is to make students enrich their cross-cultural knowledge, cultivate their aesthetic abilities, and improve their language and thinking abilities through the study of British and American literature (Long, Tian, Wang, & Wen, 2020). Language ability is the foundation. In content-based language training, we should pay attention to the cultivation of students' thinking ability, which can greatly stimulate students' interest in learning and improve their comprehensive quality. Cultivating innovative talents is the common teaching goal of all courses offered by colleges and universities (Wen & Zhang, 2014).

World literature course, as an effective combination course under the background of music diversification, makes up for the inherent defects of music thinking, adds language and discussion, and makes students find the cultural connotation behind the music.

1.4 Curriculum for Music Majors in Henan Universities

For music majors, the world literature curriculum needs to be adjusted and redesigned, which requires the effective cooperation of literature teachers and music teachers in Henan higher education, which to a certain extent involves the content of teachers' curriculum leadership. The leadership of the course has a decisive influence on the educational effect and the quality of students' training. Teachers must understand the cognitive processes that constitute critical thinking, be familiar with the tasks, skills, and situations that can be applied to these processes, and develop these processes through various classroom activities (Glatthorn, Boschee, Whitehead, & Boschee, 2018). Two teachers need to fully understand each other's professional content and teaching methods, literature teacher and music teachers' teaching need to be closely linked together so that students can quickly integrate into the new classroom activities. In the course design, different curriculum designs will consider the theme, students, and society to varying degrees. Curriculum development includes various processes (technology, humanities, and Art) that enable schools and students to achieve certain educational goals (Hunkins & Ornstein, 2016). The content of the new world literature course should be adjusted to literary works under the same cultural background as the music works learned by students so that students can achieve the purpose of language discussion and thinking exchange under the familiar cultural background theme. Brookfield (1987) proposed four critical thinking criteria, which are used in the development of classroom projects: (a) identifying and challenging assumptions, (b) understanding the context, (c) imagining and exploring alternatives, (d) conducting reflective questioning. For these four aspects, the content of the classroom should also have corresponding settings.

Teachers need to create a learning atmosphere and stimulate students' interest in learning. By emphasizing the value of autonomous thinking, students can participate in problem-solving, practice, case analysis, and learning activities to stimulate learners' positive thinking. To provide students with opportunities to exchange ideas with others, which can be achieved through student participation, group discussion, debate, and other ways. Literature class enables students to use more opportunities for communication and discussion in the language environment of multicultural education to think, identify and analyze, learn the contents related to professional knowledge, and cultivate the ability of critical thinking.

2. Strategies for Improving Critical Thinking of Music Majors in China

Given the current situation of insufficient training of students' critical thinking skills in the music education of three universities in Henan, it is recommended to carry out world literature courses to supplement language and writing teaching. Based on the existing curriculum of world literature, the teaching content emphasizes multiculturalism, adding questions, interactions, debates, and evaluations. If the school does not have the conditions to open a new course (Zhang, 2017). Can become a kind of extracurricular activity. For example, the form of flipping the classroom, with the literary works and human history in the music style and cultural environment that the students are currently learning as content, regularly hold debates and ideas exchange activities.

Strategy 1. Teachers can present some literary works, and social and cultural issues from different cultures at the same time form a multi-dimensional interweaving of different perspectives, different perspectives, and different methods on a certain problem. This makes students' thinking and attitudes towards cultural issues present a diverse and open character.

Strategy 2. In the classroom, teachers can prepare open, undecided questions and organize students to conduct instant debates. The debate is conducted in groups, guiding students to record their questions and refuting each other's theoretical views. It can help students express their ability to express and understand, but it can also really stimulate critical thinking students.

Strategy 3. Teachers should respect students' independent views, accept and value student feedback, and encourage them to question and criticize opinions in the classroom. No unique answer or standard answer, let students think openly instead of blindly and passively accepting the views of teachers or other students.

Strategy 4. Teachers of world literature courses should keep in touch with music teachers and invite music teachers to join the classroom.

3. The Evidence-Based Reasons for the Strategies

The following resources from published academic articles were used as supporting evidence for the given strategies of this paper:

Liu (2017) confirmed that debate as a teaching method can effectively improve students' critical thinking skills. The research has demonstrated the significant improvement of students' critical thinking ability by flipping the debate teaching in the learning environment.

According to Pogonowski (1989), to help students develop critical thinking skills is to help them listen to music, study music, and discover the meaning behind the music. These abilities would help students integrate their understanding of music and will provide them with the possibility to become full-scale musicians and thinkers.

The study of Lu& Liu (2019) stated a music major requires students to discover the meaning and content of the musical background, the cultural background related to musical works, and literary works, which can all become the carriers for students to train their thinking ability.

Music teachers will need to collaborate with teachers in other subject areas to ensure that students can allow themselves to practice by applying critical thinking skills to different environments (Topoğlu, 2014). Music teachers need to work together with literature courses to complete the design of new course activities, so that students can get the opportunity to exercise in different teaching environments and language classes (Woodford, 1996).

4. The Use of Literature Courses to Improve Students' Critical Thinking

4.1 Positive Support for the use of Literature courses to improve Students' CT

The discussion and interactive world literature course provide music students with a channel to fully learn the background of music culture and supplement the lack of language and text communication in music teaching. It enhances the thinking ability in the course activities Both debate and communication opportunities have a positive impact on future study and work. For the school, it not only achieved the purpose of multicultural education but also cultivated students' critical thinking ability, so that the comprehensive quality and literary level of music majors were improved. For music teachers, a variety of teaching methods and course content supplements the relevant knowledge of music professional courses to a certain extent and also provides opportunities for teachers to exercise their thinking skills. For the teaching management department, the cultivation of student literacy has been realized, and the situation of under-education has been improved. It has a reference value for the further training of students' ability and quality in higher education (Fan & Rui, 2005).

4.2 Negative Support to use of Literature Course to Improve Students' CT

The implementation of course activities will inevitably cause resistance from many parties. For schools and administrators, the increased workload time, and how to arrange courses and teaching plans rationally and scientifically is very troublesome, also need to report to the superior and study and decide.

From the perspective of teachers, the workload is increased because music teachers are rarely involved in the teaching methods of thinking training (Woodford, 1996). They need to change ideas and also carry out a series of thinking skills training and learning. Jumping out of their comfort zone means more Issues such as coursework and teaching preparation, course design, course implementation, etc. Music teachers also lack critical thinking teaching methods, skills, and literary discussion activities to a certain extent. Due to their interests and personal problems, they are not interested in updating knowledge, so the teaching effect will be greatly affected. Although the school has always advocated,

teachers are not completely overly willing to use critical thinking. It requires a high degree of improvement in the quality and content of education and learning to provide good and high-quality results. Recent research shows that not every teacher or teacher is aware of the importance of critical thinking at the same time, nor do they know how to improve and acquire this ability in the classroom (Chen, 2017).

For the education supervision department, the establishment of the new curriculum requires a series of work for approval and discussion under the strict Chinese higher education system. Because Henan higher music education does not have such a precedent, it is bound to cause great obstacles to the development of new curriculum activities.

Conclusion

The music major in higher education in China should pay attention to both the learning of students' professional abilities and the cultivation of their abilities. Critical thinking is one of the important teaching goals of higher education, and it is also an important skill for students to cope with the complex social environment in the future. Whether higher education effectively implements the teaching activities of students' critical thinking is an important basis for measuring school teaching achievements. However, from the actual situation, whether it is the overall higher education environment or the teaching situation of the music majors in three universities in Henan, it is insufficient for the cultivation of students' critical thinking ability. Based on the teaching method of the music major, students lack the opportunity for language communication and text reading to a certain extent, so there are fewer ways to train their thinking ability than the students of general majors. Only training of abstract thinking ability in music learning cannot reach the requirement of improving critical thinking ability. Critical thinking skills require language and literature as the basis, so the addition of literature courses can enable music students to obtain more language environments related to professional knowledge, and more language communication and thinking exchanges in the classroom. It has a positive effect on the cultivation and improvement of the critical thinking ability of music majors.

In the short term, the world literature curriculum or activities in Henan Higher Music Education majors will increase teachers' teaching ability and students' academic pressure. Only extracurricular activities or elective courses can be carried out. The curriculum system of universities is relatively complex, and low flexibility of curriculum in China. It must be a long-term practice and discussion to become a formal curriculum. For long-term development, combining the cultivation of critical thinking skills and the concept of multicultural education, the world literature course can be developed into a regular course for college music majors. It has a positive meaning for the cultivation of students' critical thinking and the feeling of learning the world culture and has a positive meaning for the thinking and understanding of music learning. Turn it into a compulsory course for music majors.

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A COMPARATIVE STUDY OF GRADE 6 STUDENTS' MATHEMATICS ACHIEVEMENT UNDER MULTIMEDIA TEACHING APPROACH AND TRADITIONAL TEACHING APPROACH AT A PUBLIC SCHOOL IN SAMUT PRAKAN, BANGKOK, THAILAND

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Abstract: This study aimed to compare Grade 6 students' mathematics achievement under two teaching methods: a multimedia teaching approach and a traditional teaching approach, at a public school in Samut Prakan, Bangkok, Thailand. This research was conducted among 72 Grade 6 students distributed as Grade 6/1, 36 students, and Grade 6/2, 36 students, who enrolled in the academic year 2020 - 2021. The researcher collected the data from August 2020 to October 2020. In Grade 6/1, the experimental group provided a multimedia teaching approach, and in Grade 6/2, followed by a traditional teaching approach. The data were collected by using a pre-posttest. Descriptive statistics (means and standard deviations), paired-samples t-test, and an independent samples t-test (two-tailed) were applied to compare the independent variables (multimedia teaching approach and the traditional teaching approach) and the dependent variable (mathematics academic achievement). According to the research findings, Grade 6 students' post-test results were slightly higher in the multimedia and traditional teaching approaches. The independent sample t-tests indicated no significant difference in the gain of Grade 6 students' mathematics achievement from the pre-test to the post-test between students taught through a multimedia teaching approach and a traditional teaching approach. Recommendations are provided for students, teachers, administrators, and future researchers.

Keywords: Comparative Study, Multimedia Teaching Approach, Traditional Teaching Approach, Mathematics Achievement, Grade 6 Students.

Introduction

Mathematics is an essential part of the curriculum in Thai education and international education. Mathematics is an important lesson that helps kids succeed in their future education, careers, and everyday life (Susman, 2013). The Thai Basic Education Core Curriculum B.E. 2551 (A.D. 2008) stated that mathematics is essential to developing the human mind. Every kid is unique; according to

the B.E. 2551 (A.D. 2008) Basic Education Core Curriculum, schools must create a dynamic atmosphere where children can grow cognitively and develop academically, emotionally, socially, and bodily.

Science, technology, engineering, and math (STEM) education creates a program that integrates all four disciplines to force the student to use cross-disciplinary knowledge to solve problems (Hom, 2014). Mathematics as a subject is an essential element of STEM education, so it is necessary to include it in the curriculum to help students develop their potential (Hunt, 2016).

The Program for International Student Assessment (PISA) is a worldwide exam to judge the quality of 15-year-old students' act in mathematics, science, and reading. In Thailand, the average performance in mathematics 15-year-olds scores 419 points compared to an average of 489 points in the Organization for Economic Co-operation and Development, abbreviated as (OECD) countries (PISA 2018). Student achievement in mathematics in English Program examinations is not as high as administrators, teachers, and parents expected. According to the previous semester's scores, in the second semester of 2019, the student's academic achievement in mathematics was low. The average scores for grade five, 5/1, and 5/2 were 21 out of 30 for the final exam. Also, the average scores for grade four were 20, and for grade six was 18 out of 30 for the final exam. Mathematics examination questions are not multiple choice, and the students are expected to state their solutions clearly in English and with sound reasoning. The researcher believes that an alternative learning strategy used in school, according to the study, may make a difference in these pupils' learning. The researcher worked at the target school for three years as a mathematics teacher. During this period, the researcher observed that students struggle to comprehend and explain the given problem, especially in solving word problems in mathematics classes. Therefore, the researcher decided to conduct a comparative research study of Grade 6 students' mathematics achievement under the multimedia teaching approach and traditional teaching approach at the target school in Samut Prakan, Bangkok, Thailand.

Research Objective (s)

This study was guided by the following research objectives.

1. To determine Grade 6 students' mathematics achievement level under multimedia teaching approach in pre-test and post-test at a public school in Samut Prakan, Bangkok, Thailand.
2. To determine if there is a significant difference in Grade 6 students' mathematics achievement level under multimedia teaching approach between pre-test and post-test at a public school in Samut Prakan, Bangkok, Thailand.
3. To determine Grade 6 students' mathematics achievement level under a traditional teaching approach in pre-test and post-test at a public school in Samut Prakan, Bangkok, Thailand.
4. To determine if there is a significant difference in Grade 6 students' mathematics

achievement level under a traditional teaching approach between pre-test and post-test at a public school in Samut Prakan, Bangkok, Thailand.

5. To determine if there is a significant difference in the gain of Grade 6 students' mathematics achievement from the pre-test to the post-test between students taught through multimedia teaching approach and a traditional teaching approach at a public school in Samut Prakan, Bangkok, Thailand.

Literature Review

STEM Education

STEM is an abbreviation for four educational disciplines: science, technology, engineering, and mathematics. As a result of America's need for these areas, STEM education was created by the National Science Foundation in the 1990s to empower students and ensure the nation is globally competitive (Hanover Research, 2011). The goal of the STEM system of education is to encourage teachers to develop students who possess enough knowledge of STEM knowledge so they can create new results in their STEM careers. STEM wants students to become well-known with scientific, technological, engineering, and mathematical literacy (Bybee, 2013). Thai math curriculum document is supported STEM learning and teaching. The best goals of that plan occur to improve students' skills to ask for knowledge in their progressive education and everyday lives. To resolve problems frequently, make choices using different kinds of data, and examine the information, students must gain and attain math and 21st-century skills. It will involve students applying, acquiring, and achieving knowledge to difficulties in daily life and discovering, using, and answering problems to benefit their lives and works (Boonruang, 2015).

Mathematics E-Learning Application Website Khan Academy

Khan Academy is an e-learning application website with a wide variety of learning videos on mathematics and many other subjects, including science and chemistry. Its mathematics topics are arranged as assignments associated with each class level with various examples and mathematic issues taught in the United States. Adams (2016) stated that quality interference products are rarely cheap, but Khan Academy is free and accessible. It includes giving students an instructional video about the topic to help them better understand and lookout online as schoolwork at home. At the same time, problem-solving or other hands-on work happens in-class time. Khan Academy offers exercises, teaching videos that allow students to study in and outside of the classroom and helps them to understand the lessons better. Khan Academy recommends a library of over 3,000 videos covering math, science topics such as biology, chemistry, physics, and even the humanities with playlists on finance and history

(Tomaszewski, 2012). Khan Academy offers structured development of learning material and learning supplies to allow students to profit mastery experiences (Khan, 2012).

Multimedia Teaching Approach

Multimedia teaching approach is the transfer of content and teaching activities to students via computers. Computers are tools that complete and support the system. They are not alternatives to replace teachers in the teaching process (Tan & Lim, 2008). To maximize the benefits of multimedia, instructors should choose materials that are as close to familiar topics as possible (Schmidt, 1994). Multimedia clips should also be used since they allow students to "create the multi-layered difficulties of real-life interaction" and emphasize prosodies of nonverbal communication as well as the target language's stress and intonation patterns (Goodwin, 2008).

Traditional Teaching Approach

Novak (1998) defined that the traditional teaching approach includes teaching where the teacher's role is to give the information to be learned and help students' learning process. With the demonstration, the teacher shows the students a process or procedure they can see and can, by including them, raise their involvement and be a less static method of learning.

Engagement Theory Kearsley and Schneiderman (1998)

Engagement is an idea that discusses learners' effective participation in an exercise for learning. This theory is about learner's engagement with equipment for learning that will increase learner's motivation to research and academic accomplishment (Kearsley & Schneiderman, 1998). The function of technology in the idea is to help all components of engagement. The use of e-mail, online conferencing, Web stores, groupware, and aural /video conferencing will increase the level and comfort of communication amongst all members, also access to data (Kearsley & Schneiderman, 1998).

Mayer (2007) the Cognitive Theory of Multimedia Learning

Cognitive theory of multimedia learning means using words and graphics to change the knowledge in education that is available to us and how we try to design it. Cognitive processing, paying attention to the relevant information mentally organizing it into a structure and relating it to their prior knowledge (Mayer, 2007). The cognitive concept of multimedia learning produces an effort to assist achieve this aim by describing how humans analyze from words and images primarily based on regular empirical lookup evidence (Mayer, 2007).

Bruner's (1978) Constructivism and Discovery Learning Theory

Bruner's (1978) constructivism and discovery studying concept represent cooperative studying via active, supportive contribution to the studying method learners find out and combine new information and abilities.

Constructivism's fundamental concept is that individual learning is the build-up, that students construct new learning base of what they learned earlier. This prior learning effects what new or changed learning a learner will build from new knowledge practices (Phillips, 1995).

Methodology

This study was a quasi-experimental research design. This study aimed to compare Grade 6 students' mathematics achievement under multimedia teaching approach and traditional teaching approach. The researcher used a Pre-test and Post-test to determine students' mathematics achievement for learning mathematics before and after applying each method. The experimental group provided by multimedia teaching approach and the follow by traditional teaching approach. The data was collected using the same set of tests for their pre and post-test, where students tested before and after the eight weeks of instruction using two different methods. Descriptive statistics (means and standard deviations) and an independent samples t-test (two-tailed) were used to determine a significant difference between the multimedia teaching approach and the traditional teaching approach in students' mathematics achievement of Grade 6 in mathematics class.

Population and Sample

The target population of this research study was all the current Grade 6 students in the English program in a mathematics class at a target public school in Samut Prakan, Thailand. in the academic year 2020-2021. There were 72 students, distributed as follows: Grade 6/1, 36 students and Grade 6/2, 36 students. The total sample size was a population sample size comprised of all 72 students enrolled in the mathematics class of Grade 6.

Research Instrument

The pre-posttest was used to measure the students' mathematics achievement before and after the two different teaching approaches. The researcher developed the pre-posttest. The test was designed in Unit 1(Counting numbers) and Unit 2 (Equations and solving equations) of the Math in Action Textbook, Publishing Thailand (2019). The test for Grade 6 consisted of seven parts. Each item has one point, and it has 25 points altogether for each grade. The pre-posttest was reviewed and validated by five senior math teachers with extensive teaching experience at a target public school as the first step in the validation process. The reliability of the test was done by ten students of Grade 6 with similar

mathematics background knowledge for Grade 6. The result showed that the test was reliable as it was .72. Table 1 shows the reliability statistics of mathematics pre-posttest.

Table 1: Reliability Statistics of Mathematics Pre-test and Post-test

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.72	.68	25

Table 2 below shows the interpretation of the pre and post-test scores.

Table 2: Interpretation of Grade 6 Mathematics Pre-test and Post-test Scores

Scores	Interpretation
29 - 30	Very high
26 - 28	High
21 - 25	Slightly high
16 - 20	Moderate
11 - 15	Low
6 - 10	Moderately low
0 - 5	Very low

Results

Research Objective 1

The first research objective was to determine Grade 6 students' mathematics achievement level under multimedia teaching approach (Experimental Group 6/1) in pre-test and post-test. Table 3 indicates the means and standard deviations of pre-test and post-test under multimedia teaching approach.

Table 3: Mean Scores, Standard Deviation, and Interpretations for Pre-test and Post-test of the Experimental Group (6/1) at a Public School in Samut Prakan, Bangkok, Thailand

Experimental group	<i>n</i>	<i>M</i>	<i>SD</i>	Interpretation
Pre-test	36	19.42	4.066	Moderate
Post-test	36	20.44	2.990	Slightly high

The pre-test of the experimental group scored ($n=36$, $M=19.42$, $SD=4.066$). The analysis of the post-test of the same group showed ($n=36$, $M=20.44$, $SD=2.990$). The difference between the means showed a difference of $20.44 - 19.42 = 1.02$ points, which represent an increase of approximately $(1.02/19.42) * 100 = 5.25\%$ between the pre-test and post-test scores.

Research Objective 2

The second objective was to determine if there is a significant difference in Grade 6 students' mathematics achievement level under multimedia teaching approach between pre-test and post-test. Table 4 illustrates the dependent samples t-test result of the experimental group (6/1).

Table 4: Dependent Samples t-test Results

Experimental group	<i>n</i>	<i>M</i>	<i>SD</i>	<i>Sig. (2-tailed)</i>
Pair 1 Pre-test and Post-test	36	-1.02	3.46	.083

A paired-samples t-test was conducted to compare Grade 6 students' mathematics achievement under multimedia teaching approach between pre-test and post-test. There was no significant difference in the scores for pre-test ($M=19.42$, $SD=4.066$) and post-test ($M=20.44$, $SD=2.990$) conditions; $t(35) = -1.78$, $p = 0.083$. Results from the dependent samples t-test revealed no significant difference in Grade 6 students' mathematics achievement under a multimedia teaching approach between pre-test and post-test.

Research Objective 3

The third objective was to determine Grade 6 students' mathematics achievement level under a traditional teaching approach in pre-test and post-test. Table 5 indicates the means and standard deviations of pre-test and post-test under multimedia teaching approach.

Table 5: Mean Scores, Standard Deviation, and Interpretations for Pre-test and Post-test of the Control Group (6/2) at a Public School in Samut Prakan, Bangkok, Thailand

Control Group	<i>N</i>	<i>M</i>	<i>SD</i>	Interpretation
Pre-Test	36	18.97	4.45	Moderate
Post-Test	36	19.42	3.98	Moderate

The pre-test of the control group scored ($n=36$, $M=18.97$, $SD=4.456$). The analysis of the post-test of the same group showed ($n=36$, $M=19.42$, $SD=3.981$). The difference between the means showed a difference of $19.42 - 18.97 = 0.45$ points, which represent an increase of approximately $(0.45/19.42) * 100 = 2.31\%$ between the pre-test and post-test scores.

Research Objective 4

The fourth objective was to determine if there is a significant difference in Grade 6 students' mathematics achievement level under a traditional teaching approach between pre-test and post-test. Table 6 illustrates the dependent samples t-test result of the experimental group (6/2).

Table 6: Dependent Samples t-test Results of the Control Group (6/2)

Control Group	<i>n</i>	<i>M</i>	<i>SD</i>	<i>Sig. (2-tailed)</i>
Pair 2 Pre-test and Post-test	36	-.44	3.54	.45

A paired-samples t-test was conducted to compare Grade 6 students' mathematics achievement under a traditional teaching approach between pre-test and post-test. There was no significant difference in the scores for pre-test ($M=18.97$, $SD=4.456$) and post-test ($M=19.42$, $SD=3.981$) conditions; $t(35) = -.753$, $p = 0.456$. Results from the dependent samples t-test revealed no significant difference in Grade 6 students' mathematics achievement under a traditional teaching approach between pre-test and post-test.

Research Objective 5

The fifth objective was to determine if there is a significant difference in the gain of Grade 6 students' mathematics achievement from the pre-test to the post-test between students taught through multimedia teaching approach and a traditional teaching approach. Table 7 illustrates the results of the independent samples t-test comparing the difference in the gain of students' mathematics achievement from the pre-test to the post-test among students taught through multimedia teaching approach and traditional teaching approach.

Table 7: Independent Samples t-test of the Pre-test, Post-test, and the gain of Experimental and Control Group(n=72)

Group	N	Mean of Pre-test	Mean of Post-test	Mean of the Gain	t	df	Sig. (2- tailed)
Experimental	36	19.42	18.97	2.44	-.431	70	.668
Control	36	20.44	19.42	2.69			

An independent-samples t-test was conducted to compare the significant difference in the gain of Grade 6 students' mathematics achievement from the pre-test to the post-test between students taught under a multimedia teaching approach and a traditional teaching approach condition. The researcher used the pre-test and post-test, used the gap between pre-test and post-test in each group, and used the t-test to compare the significance difference in the gain. In this case, the scores for multimedia teaching approach ($n = 36$, $M=2.44$, $SD=2.66$, Mean of the Gain=2.44) and a traditional teaching approach ($n = 36$, $M = 2.69$, $SD = 2.24$, Mean of the Gain 2.69) conditions; $t(70) = -.431$, $p = 0.668$, two-tailed, there was no significant difference in achievement between the two instructional methods. The result was rejected hypothesis.

Discussion

This study aimed to compare the effectiveness of teaching method between multimedia teaching approach and a traditional teaching approach in terms of student's mathematical achievement. The findings from this study showed that there was no significant difference in student's mathematical achievement between multimedia teaching approach and a traditional teaching approach. It was not significant probably because the students struggled, especially in solving word problems in mathematics classes when they needed to comprehend and explain the given problem. English language usage skills would be another reason as the students watched a video clip at home, however they could not understand the English.

Nusir et al. (2012) developed a study to look into the effects of multimedia technology on the effectiveness of teaching in primary schools for children in the early stages. Two groups were chosen. Basic mathematics was introduced to the experimental group utilizing a multimedia teaching strategy. The second class (control group) taught the same topic using a traditional approach. The findings of this research were in line with their findings, and they found that there is no significant difference in student's mathematical achievement.

The findings from this study were not significant and not improved because it might become a frustrating experience for students who did not have experience of using multimedia to study mathematics.

According to Zaldvar et al. (2017), while using educational software has numerous benefits, it can also be a problematic experience for teachers and students unfamiliar with it. The authors assess the usage of educational software in Mathematics to promote the learning of first-year primary pupils in Mazatlán, Mexico. The study's goal was to look at the effects of software and introduce instructional software to the first-year class of students. The research was conducted in three schools in Mazatlan, Mexico, in the city's metropolitan region. The findings of this research were in line with their findings, and they found it can also become a frustrating experience student.

The results of a meta-analysis of experimental studies using educational software to learn fractions, decimals, and percentages; plane and coordinate geometry; indexes, rates, and proportions; operations with accurate and integer numbers; probability and data analysis; and measurement show no statistically significant differences (Dynarski et al., 2007).

The Engagement Theory is a teaching and learning concept based on technology. Its primary premise is that students must be actively engaged in learning activities by interacting with others and completing worthwhile tasks (Kearsley & Schneiderman, 1998). Tarmizi and Bayata (2012) discovered that collaborative problem-based learning in a group setting improved student performance significantly, and Kocak et al., (2009) observed that students who study mathematics in a group are encouraged to discuss and learn to be more attentive in class, resulting in better understanding

mathematics instead of memorizing the relevant information and proofs. The findings of this research were not in line with their findings, because students in experimental group did not work in a group by using the internet at home and did not discuss the lesson together.

Abu Yunis (2005) study entitled "The effectiveness of multimedia software to teach Geometry in the second grade of preparatory school" aimed at identifying to what degree multimedia software helps in the academic achievement of the primary school students in the subject of Geometry. The sample of the experimental study included 300 male and female students separated into two experimental and control groups. Each group consisted of 150 male and female students. The experimental group was taught by the multimedia software program that contained the content of the geometry unit identified by the Ministry of Education in the Syrian Arab Republic. The results showed significant statistical differences in the average academic achievement of the experimental and control groups in the test conducted after the experiment in favor of the experimental group.

Algerioy (1999) used the experimental technique with a research sample of 62 students in Riyadh to investigate the impact of multimedia on the academic achievement of first-grade secondary school pupils in mathematics. They were divided into two groups, with the experimental group studying on its own using multimedia and the control group studying traditionally. In terms of recollection, knowledge, and application, the researchers discovered no statistically significant differences between the experimental and control groups' average achievement.

Conclusion

The researcher drew the following conclusions from the findings.

The findings from research objective 1 revealed that the mean scores under a multimedia teaching approach increased between pre-test and post-test. As result, means scores in post-test students who taught under a multimedia teaching approach were slightly higher.

The findings from research objective 2 revealed that according to the t-test there was no significant difference in Grade 6 students' mathematics achievement under a multimedia teaching approach between pre-test and post-test.

The findings from research objective 3 revealed that the mean scores under a traditional teaching approach increased between pre-test and post-test. Mean scores in post-test were slightly higher.

The findings from research objective 4 revealed that according to the t-test there was no significant difference in Grade 6 students' mathematics achievement under a traditional teaching approach between pre-test and post-test.

The findings from research objective 4 revealed that the mean score of students' mathematics achievement in experimental group taught by a multimedia teaching approach gained slightly higher

than the mean score of the students in control group taught by a traditional teaching approach. There was no significant difference in achievement between the two instructional methods. Based on the findings, this research acknowledged that understanding English could help to understand the mathematics word problem better and helps on mathematics academic achievement. Therefore, students should improve their English language skills to achieve higher mathematics by using various methods such as reading more books and magazines, watching a video clip on mathematics programs, and listening to educational podcasts. Also, students should work together to achieve higher mathematics achievement. Teachers should be aware of the effectiveness of implementing group work in student performance and achieving higher mathematics achievement. English language teachers should improve students' reading skills, language usage skills, and group work to improve comprehension skills that has direct effect on mathematics achievement. School administrators should ensure that teacher's usage of multimedia teaching approach and traditional approaches suitable for the student's improvement in mathematics as necessary. Future research should consider these elements and focus on the necessary groundwork to counteract these difficulties.

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