



A Comparative Study of Thinking Quality Between Chinese and American Junior Middle School Students From the Perspective of Key Competences of English Subject

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Abstract

The globalization and information tide in the 21st century have promoted the new demand for talents in social development, and the key competences education came into being under such an era. Subsequently, the “key competences” became the key word of the global educational reform under the background of the new era in the 21st century. The key competences documents promulgated by many countries have obvious consistency and similarity, but they are not completely identical. There may be some problems worthy of reflection behind the differences. As the largest developing country and the largest developed country in the world, the educational views of China and the United States have a profound impact on the world civilization and pattern. As far as English subject is concerned, although English education is foreign language education in China, not native English education or non-native English education in the United States, it is combined with the reality of English education in China. Comparing the similarities and differences in the field of thinking quality between Chinese and American junior middle school English education can promote the reform of domestic English education and improve its quality. Also, many teachers only pay attention to the cultivation of students’ language knowledge and skills in the English classroom at present, neglecting the cultivation of students’ thinking quality, so it is difficult to improve students’ thinking ability and thinking personality traits. Based on this, the paper aims to cultivate and develop thinking quality of junior middle

school students from the perspective of key competences of English subject. Through a comparative study of the consistency and difference of thinking quality between Chinese and American junior middle school students by using the methods of literature research and comparative analysis, the paper pays more attention to the problems of thinking quality of junior middle school students in China. As a result, the corresponding solutions are discussed. The paper is divided into five chapters.

The first chapter is the introduction. The research background, research purposes, research significance, research problems and research methods are briefly described.

The second chapter is the literature review. It covers the research status and research trend of thinking quality at home and abroad.

The third chapter is comparative study. This part briefly introduces the framework of Chinese and American key competences, discusses in detail the consistency and differences of Chinese and American junior high school students’ thinking quality in the three dimensions of logic, criticism and innovation, and points out the similarities and differences.

The fourth chapter explores the essence of differences. From the perspective of English curriculum, this paper explains the reasons for the differences in thinking quality between Chinese and American junior high school students, including classroom teaching, reading and writing.

The fifth chapter is a reflection. It discusses the limitations of the cultivation of thinking quality of junior middle school students in China, draws lessons from useful experience, and initially explores the methods of cultivating thinking quality of junior middle school students, in order to enhance the comprehensive strength of the key competences of junior middle school students.

Key words: key competences; English subject; Sino-American junior middle school students ; Thinking quality

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1. INTRODUCTION

As an introductory part, this chapter will firstly present the background of the research. Then the purpose of this research, significance of the study and methods of the study will be put forth. In the end, questions of the study will be generally presented.

1.1 Background of the Study

In 2014, the Ministry of Education formally put forward the concept of “To develop the key competences of Chinese students”, which is an urgent topic that needs to enhance Chinese international competitiveness in terms of education, and the “key competences system” has become the top-level design to promote quality education in an all-round way and lead the curriculum reform of various disciplines into the “connotative” development. The key competences needs to be integrated into the subject curriculum, take the subject curriculum as the carrier, and materialize in the subject education. If the key competences is the top-level design of educational reform in various regions and countries, then the key competences of the discipline is the bridge between the top-level design and educational practice.

Junior high school is an important stage in the process of students’ English learning. How to better cultivate the thinking quality of middle school students in English subject has become an issue of widespread concern in the society. The key competences of English subject includes four dimensions: language ability, thinking quality, cultural consciousness and learning ability, which reflect the requirements of language ability and cultural awareness unique to the connotation of English subject. The cultivation of thinking quality is one of the important goals of English teaching in middle schools, and it has attracted much attention as an important part of key competences. In the context of examination-oriented education, which emphasizes knowledge, neglects culture, and falsely increases the enrollment rate, it is necessary to draw lessons from the very inclusive success of the United States in this regard, take its essence, and enhance the thinking quality of domestic junior middle school students, so as to cultivate the comprehensive strength of the key competences of English subject.

1.2 Purpose of the Study

The paper explores the ways of cultivating the thinking quality of Chinese and American junior high school students under the key competences of English subject, draws lessons from the successful experience of the

cultivation of American junior high school students’ thinking quality, makes up for the shortcomings of the current domestic middle school thinking quality cultivation, and breaks its limitations, so as to enhance the thinking quality of junior high school students.

1.3 Significance of the Study

Comparing the similarities and differences in the field of thinking quality between Chinese and American junior middle school English education benefits to promote the reform of domestic English education and improve its quality, theoretical significance and Practical significance included.

1.3.1 Theoretical Significance

Through the analysis, collation and summary of the relevant literature on the key competences of English subject and the thinking quality of Chinese and American junior high school students, the research context of the relevant theory is informative. It enriches the research on the thinking quality of junior high school students, compares the similarities and differences of logical thinking, critical thinking and innovative thinking between China and the United States, and draws lessons from each other, so as to provide reference for Chinese English subjects on the theory of thinking quality. It provides a reference for the study of students’ thinking quality in the later stage.

1.3.2 Practical Significance

A comparative study of the similarities and differences of thinking quality between Chinese and American junior high school students, summing up practical teaching experience to solve practical problems, to provide help for front-line middle school English teachers; Through the comparative study, the researcher deepens the understanding of thinking quality, which is beneficial to the improvement of personal key competences, educational ability, teaching skills, and the transformation of domestic English teaching thinking, as well.

1.4 Methods of the Study

The paper compares the consistency and differences of Chinese and American junior high school students’ thinking quality, including logic, criticism and innovation, and points out the similarities and differences. This paper discusses the reasons for the differences and draws lessons from the advantages to make up for the shortcomings of the thinking quality education of domestic junior high school students.

The method of literature research mainly refers to collecting, identifying and sorting out documents, and forming a method of scientific understanding of facts through the study of documents. In this study, through the literature research method, we can have a basic understanding of the current research situation, and deepen the understanding of the relevant research content, and then form the basic framework of this research.

The method of comparison mainly refers to the method of comparing the relevant objective things in order to understand the essence and law of things and make a correct evaluation. In this study, through the carding and systematic comparison of the thinking quality of Chinese and American junior high school students, this paper finds out the similarities and differences of Chinese and American junior high school students' thinking quality from the perspective of subject English key competences, and tries to analyze the reasons behind the similarities and differences. In order to add new theoretical resources for researchers in related fields. In terms of attribute, this study is a comprehensive comparison rather than a single comparison; in time and space, this study belongs to horizontal comparison; in goal orientation, it not only compares the similarities of thinking quality between Chinese and American junior high school students, but also compares the differences between Chinese and American junior high school students. In the nature of comparison, this study belongs to qualitative comparison.

1.5 Questions of the Study

(1) what are the similarities and differences in the thinking quality of Chinese and American junior high school students from the perspective of key competences of English subject?

(2) what are the problems and reasons for the thinking quality of domestic junior high school students?

(3) what are the strategies for cultivating junior high school students' thinking quality under the key competences of English subject?

2. LITERATURE REVIEW

This chapter will provide an overview of the literature concerning thinking quality both at home and abroad in detail.

In the process of combing literature, the author uses "key competences" and "thinking quality" and other related words as keywords, and searches the relevant researches from 2000 to 2019 in "CNKI Chinese Journal full-text Database" "Reading Show Academic Resource Database". It is found that the related research results of key competences sprung up like bamboo shoots after a spring rain from 2016 to now, which indicates that key competences has gradually become the focus of international education issues. Thinking quality refers to the ability and level of thinking in logic, criticism, creativity and so on" (Ministry of Education, 2017), which is of great significance to the development of individual thinking.

2.1 Previous Researches on Thinking Quality at Home and Abroad

2.1.1 Previous Researches on Thinking Quality Abroad

The researches on thinking quality abroad began in the psychological field in the Soviet Union. Some

psychologists (Smirnov et al. , 1957; Bogoslovsky, 1979) emphasized the creativity, complexity and flexibility of human thinking. Guilford (1991) also paid his attention to thinking quality and put forth theories on divergent thinking. He concluded the components of divergent thinking as sensitivity, fluency, flexibility, elaboration, originality and redefinition. These researches and theories laid a foundation for the following studies and inspired more scholars to look into thinking quality. One of the suggestions made by Bruner (1982) on education is discovery learning, which encourages students to find out problems and solve the problems by themselves. This teaching practice can develop students' habit of thinking independently and creatively. With the spread of the theory of multiple intelligence by Gardner (1999), a new point of view on intelligence and thinking was fully explored. Different qualities of thinking gradually arouse the awareness and interest of more educational experts. Sternberg (1996) carried out a series of educational experiments, in which three thinking modes are developed separately and obvious achievements were gained. These researches brought revolutions to education, especially the way of viewing and developing human thinking and thinking quality. All these theories and practice contributed to the researches and findings made in recent years. On the basis of them, recently more researches on thinking quality have been carried out, with more theories brought forward and more teaching strategies provided. William (1972) came up with Cognitive-Affective-Interaction Theory to improve creativity of students' thinking. Among these researches on thinking quality, quite a large number of studies were launched in language learning, particularly in English teaching and learning. There followed studies on students' specific thinking qualities, such as creativity and criticalness. Cheng (2010) emphasized the necessity of inspiring students' in China to use their own thinking and teaching then creative thinking skills and problem solving methods. Hui and Yuen (2010) studied association between creativity and English language teaching and showed benefits of teaching creativity to Asian students. Aloqaili (2001) proved the relationship between reading comprehension and critical thinking and took the schema theory as the premise of this relation. These studies have characteristics of their own, which provide inspirations to the study on thinking quality in our country. However, few of them explored the cultivation of thinking quality in comparing the similarities and differences in the field of thinking quality between Chinese and American junior middle school English education.

2.1.2 Previous Researches on Thinking Quality at Home

In terms of thinking quality, domestic experts and scholars have also done lots of researches. Yao Guizhao (2007) pointed out that task-based teaching can be used to guide students to carry out critical reading, promoting the gradual improvement of students' problem-solving

ability based on tasks; Ai Jun (2010) believed that the improvement of thinking quality cannot ignore the differences between English and Chinese ways of thinking; Ke Jiangning (2010) pointed out that we should attach importance to students' innovative thinking and advocate that teachers teach in all English to create a positive language environment for students; Li Yingxin and Sun Yan (2011) considered that critical thinking is the key accomplishment that college students should focus on. The ways to cultivate critical thinking quality is to create a good classroom environment, organize students' discussions and debates, teachers reflect in time and adopt a variety of evaluation methods; Li Hongling (2013) took the innovative thinking quality of college students as the breakthrough point, and pointed out that it is necessary to integrate the teaching mode and adopt a variety of teaching methods, through creating different situations, organizing students to discuss and debate, timely inspiration and guidance is necessary, as well; Yan Jiaolan (2014) put forward the cultivation of thinking quality by means of renewing teachers' ideas and set up curriculum reasonably, improving teaching methods and evaluation methods, guiding students' divergent thoughts; Gong Yafu (2015) pointed out English education in primary and secondary schools can cultivate students' correct thinking quality through teaching contents, in this way, it is possible to promote students to develop positive personal strength and virtue; Chen Lin (2016) pointed out that the development of thinking quality is one of the main goals of cultivating the key competences of English subjects. Only by effectively carrying out teaching activities to promote the development of students' thinking quality in the process of teaching, so as to achieve English teaching objectives successfully; Song Xiaoying (2016) pointed out that the way of asking questions in class needs to be changed, and questions should be set openly by teachers, striving to achieve the improvement of students' thinking quality in the competition between group discussions and debates; Chen Lisshuang (2018) advocated the design of opening thinking tasks, carried out speculative thinking activities and set up creative thinking homework is indispensable for cultivating thinking quality.

All these recent studies have taken notice of the close relationship between English learning and improvement of thinking quality. It can be proved that thinking quality can be cultivated in the process of learning English. Most of them are lack of investigation on facts of students' thinking or ignore teachers' abilities of cultivating thinking quality. Therefore, there is necessity for more thorough and intensive researches in cultivating thinking quality, which is the significance of this study, so what is worth exploring is how to compare the similarities and differences in the field of thinking quality between Chinese and American junior middle school English education.

3. COMPARATIVE STUDY

The third chapter is comparative study, briefly introduces the framework of Chinese and American key competences, consistency & differences included, refers to key competences of English subject, discusses in detail the consistency and differences of Chinese and American junior high school students' thinking quality in the three dimensions of logic, criticism and innovation by means of literature research and comparative method with a survey, and points out the similarities and differences.

3.1 Comparison of Key Competences Between China and the United States

3.1.1 Chinese Key Competences

The term "key competences" was originally an "imported product". In 1997, the Organization for Economic Cooperation and Development (OECD) tried to define "competences". In 2003, the term "key competences" emerged in the report "Key Competences for a Successful Life and a Healthy Society" released by OECD. As the word "key competences" appears frequently in the major international research reports, the word has gradually become popular in China and become a hot topic of research. The key competences of students' development mainly refers to the necessary character and key ability that students should possess and can meet the needs of lifelong development and social development (Chen, 2016).

Almost each country all over the world has put forward the need to train people with all-round development in 21st century. In May 2013, China began to study the key competences of Chinese students. After more than three years, a press conference on the research results of the key competences of Chinese students was held on September 13, 2016, which including three major areas, six literacy and eighteen key points has been fully announced (see Figure 1 and Table 1). The three aspects: cultural foundation, independent development and social participation. Cultural foundation contains humanistic background and scientific spirit, independent development includes learning to study and healthy life, social participation includes responsibility and practical innovation. There is also the inclusive relationship between the lower position: humanistic spirit includes humanistic accumulation, humanistic feelings and aesthetic taste, scientific spirit includes rational thinking, critical questioning and the courage to explore, and learning to study includes happy learning, diligent reflection and information consciousness. Healthy life includes cherishing life, sound personality and self-management, responsibility includes social responsibility, national identity and international understanding, practical innovation includes labor consciousness, problem solving and technical application.

From the literal excavation, it is not difficult to see that every kind of competences is inseparable from

the “thinking quality “the most important thing of scientific spirit is to seek truth. Humanistic connotation is not formed by reciting knowledge, but by judgment and evaluation in understanding. Learning to study is the process of obtaining the optimal learning scheme; responsibility is ostensibly a personality characteristic, but it must be based on the understanding and rational thinking of responsibility, otherwise there may be blind collectivist behavior. Innovation is not the pursuit of difference, but based on the in-depth study of the nature of things and the grasp of the law. Therefore, no matter which version of the core literacy expression, “thinking quality” is the core of the key competences.

Student development consists of two aspects, mental and physical. The mind is divided into academic and non-academic, the academic is divided into knowledge and

ability, and knowledge is divided into the knowledge obtained by the examination and the knowledge that can not be tested. Therefore, from the perspective of balanced development, Chinese key competences framework contains more comprehensive elements.

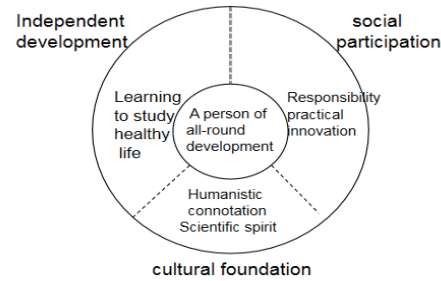


Figure 1
Chinese key competences

Table 1
Chinese Key Competences

| Dimension | Key competences | Basic points | Main performance description |
|-------------------------|------------------------|----------------------------------|---|
| Cultural foundation | Humanistic connotation | Humanistic accumulation | The key point is to have the accumulation of basic knowledge and achievements in the field of humanities at all times and at home and abroad, and to understand and master the cognitive and practical methods contained in humanistic thinking. |
| | | Humanistic feelings | The focus is on being people-oriented, respecting and safeguarding human dignity and value, and being concerned about human survival, development and well-being. |
| | | Aesthetic interest | The key point is to have the accumulation of artistic knowledge, skills and methods, to understand and respect the diversity of culture and art, to have the consciousness and basic ability to discover, perceive, appreciate and evaluate beauty, and to have a healthy aesthetic value orientation. Have the interest and consciousness of artistic expression and creative expression, can expand and sublimate beauty in life. |
| | Scientific spirit | Rational thinking | The key point is to advocate true knowledge, to understand and master the basic scientific principles and methods, to respect facts and evidence, to have empirical consciousness and rigorous attitude towards knowledge. The logic is clear, can use the scientific way of thinking to understand things, solve problems, guide behavior and so on. |
| | | Critical questioning | The key point is, have the problem consciousness; can think independently, judge independently; think carefully, can analyze the problem from many angles and dialectically, make choices and decisions, and so on. |
| | | Have the courage to explore | The key point is to have curiosity and imagination, to be able to overcome difficulties, to have an unremitting spirit of exploration, to be able to try boldly, to actively seek effective solutions to problems, and so on. |
| Independent development | Learn to learn | Be happy to learn and learn well | The key point is, can correctly understand and understand the value of learning, have a positive learning attitude and strong interest in learning, can develop good learning habits, master suitable learning methods; Be able to learn independently, have the consciousness and ability of life-long learning and so on. |
| | | Diligent in reflection | The key point is to have the consciousness and habit of examining their own learning state, be good at summing up experience, and be able to choose or adjust learning strategies and methods according to different situations and their own reality. |
| | Healthy life | Information consciousness | The key point is to obtain, evaluate, identify and use information consciously and effectively; to have the ability of digital survival, to actively adapt to the development trend of social informatization such as “Internet +”, and to have the understanding of network ethics and information security. |
| | | Cherish life | The key points are to understand the meaning and value of life, to have safety consciousness and self-protection ability, to master suitable exercise methods and skills, and to develop healthy and civilized behavior habits and way of life, and so on. |
| Dimension | Key Competences | Basic points | Main performance description |
| | | Sound personality | The point is, have positive psychological quality, self-confidence and self-love, tough and optimistic; have self-control, can adjust and manage their own emotions, have the ability to resist setbacks and so on. |
| | | Self management | The key point is to be able to correctly understand and evaluate the self; choose the appropriate development direction according to their own personality and potential; rationally allocate and use time and energy; have the continuous action power to achieve the goal and so on. |

To be continued

Continued

| Dimension | Key competences | Basic points | Main performance description |
|---------------------------|----------------------|---------------------------------|---|
| S o c i a l participation | Responsibility | S o c i a l responsibility | The key point is, self-respect and self-discipline, civilized politeness, honesty and friendliness, leniency and kindness; filial piety and respect, gratitude; enthusiasm for public welfare and voluntary service, dedication, team consciousness and mutual help spirit; Be able to take the initiative, perform their duties, be responsible to themselves and others, be able to distinguish right from wrong, have a sense of rules and the rule of law, actively perform civil obligations, exercise civil rights rationally, advocate freedom and equality, and maintain social fairness and justice. Love and respect nature, with a green lifestyle and sustainable development concepts and actions. |
| | | N a t i o n a l identity | The key point is to have national consciousness, understand the history of national conditions, identify with national identity, and be able to consciously defend national sovereignty, respect and interests; Have cultural self-confidence, respect the outstanding civilization achievements of the Chinese nation, can spread and carry forward the excellent traditional Chinese culture and socialist advanced culture; Understand the history and glorious tradition of the Communist Party of China, have the consciousness and action of loving and supporting the Party; We should understand, accept and consciously practice the core socialist values, share the common ideal of socialism with Chinese characteristics, and have the belief and action to unremittingly strive for the great rejuvenation of the Chinese nation, Chinese Dream, and so on. |
| | | International understanding | The key point is to have a global awareness and open mind, to understand the process of human civilization and the dynamics of world development, to respect the diversity and differences of multiculturalism in the world, and to actively participate in cross-cultural exchanges. Pay attention to the global challenges facing mankind and understand the connotation and value of the community with a shared future for mankind. |
| | Practical innovation | L a b o r consciousness | The key point is to respect labor, have a positive labor attitude and good working habits, have the ability of hands-on operation, and master certain labor skills. In the active participation in housework, productive labor, public welfare activities and social practice, have the consciousness of improving and innovating the way of labor and improving labor efficiency; Have the consciousness and action to create life and achieve life through honest and legal work. |
| Dimension | K e y Competences | Basic points | Main performance description |
| | | P r o b l e m solving | The key point is to be good at finding and asking problems, have the interest and enthusiasm to solve problems, be able to choose reasonable solutions according to specific situations and physical conditions, and have the ability to act in complex environments. |
| | | T e c h n o l o g y application | The key point is to understand the organic relationship between technology and human civilization, to have the interest and willingness to learn and master technology, to have engineering thinking, to transform ideas and solutions into tangible goods, or to improve and optimize existing objects, and so on. |

3.1.2 American Key Competences

The United States does not have the expression of key competences, which roughly corresponds to the development of future skills, which is related to the national conditions of the United States. In 2002, the 21st Century skills Alliance constructed the system of skills in the 21st century. On the basis of extensive surveys and striving for public opinion, the key skills are locked in three major areas: learning and innovation skills, life and vocational skills, information media and technical skills. The poor results of the US PISA test in 2003 became the ignition line to further accelerate the research on key skills, and the United States finally released a revised version of the “21st Century skills” Framework in 2007. The elements and structure of the framework are clearly and systematically presented (Figure 2).

The framework of American skills in the 21st century is rainbow-shaped as a whole. The framework is hierarchical and complete, including three parts: 21st century skills, core subjects and topics, and four support systems. The logic of the three parts lies in: the outermost learning and innovation skills, life and vocational skills, information media and technical skills are the training objectives, learning results, core skills, equivalent to the positioning of Chinese key competences; The core subject and theme of the inner layer is the acquired subject

knowledge and literacy, which is the foundation, process and bridge of the outermost skill training, and the bottom has been the four support systems, which is the way and guarantee that the skills can be effectively implemented in the 21st century. As a result, the three parts by the low and high, interlinked, a comprehensive overall, systematic and clear composition of the 21st century skills framework.

American future skills can be expressed in six C. The first two are critical thinking and creative thinking. There must be criticism before creation, so in case of trouble, a criticism is approved first. In this process, various different views burst out and collide with new sparks, which is similar to Chinese idea of not breaking or standing. Innovation must first form a pluralistic atmosphere that allows different people to have different ideas. The next two Cs were extracted by Americans in the course of their discussions. Now the society is a flat society, which requires people in the society to have the ability of teamwork, now the learning is more emphasis on a team learning, group learning. Teamwork is actually two basic things: one is how to communicate, and the other is how to cooperate. So these two future skills are communication and collaboration. These four competences are often referred to as the four key competences of the 21st century.

There are also two abilities that roughly correspond to social participation in the framework of Chinese students’

key competences. Americans believe that two abilities are needed in this respect: one is that character, can be called personality, or quality and personality. The so-called character education, is actually to make each child develop into an independent person, become a different person from others. The other is the issue of civic

awareness, rights and obligations, that is, citizenship. On the one hand, rights guarantee fairness; on the other hand, there are obligations, without which there is no sense of responsibility and no contribution. Both rights and obligations are indispensable.

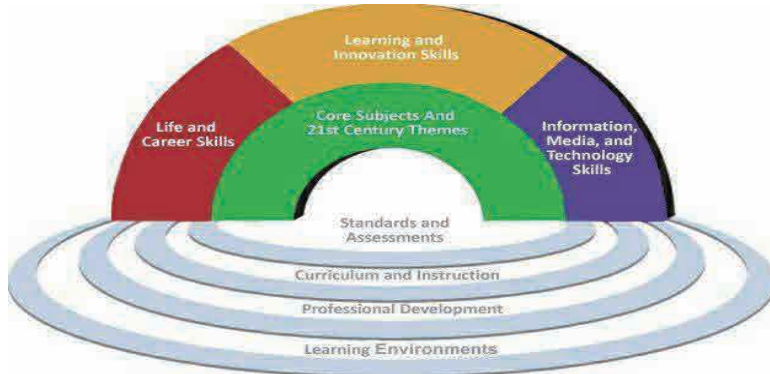


Figure 2
American skills in the 21st century

3.1.3 Consistency & Differences

Consistency: Both are based on their own national conditions, with a high degree of generality; both of them mentioned criticism and innovation. And the common pursuit is that pure knowledge is not regarded as the key competences; practical ability is highly valued; cooperation, communication and understanding based on the background of economic globalization are very important; and thinking quality is emphasized, especially critical thinking as high-level thinking. Especially, thinking quality is a particularly prominent theme. In fact, thinking quality constitutes the quality guarantee of practical ability, cross-cultural and cross-domain cooperation, communication and understanding. This also reflects a substantive proposition of education in the future, knowledge can not be learned, but thinking must have a process of cultivation.

Differences: the former involves more extensive and specific, and is good at using four-word words to express; the United States is an immigrant country with a short history that cannot be compared with China's long cultural history, so they pay more attention to the future, emphasizing contribution and participation; the former cultural inheritance is more prominent, for example, the accumulation and inheritance of cultural heritage.

In the comparison of key competences between China and the United States, we understand that what is needed in the information age in the 21st century is "competence" such as innovation, critical thinking, communication and teamwork. Therefore, under the tradition of western scientific understanding of the world and participating in the society, we should inherit the spiritual core of Chinese culture.

3.2 Key Competences of English Subject

The key competences of English subject is the correct value concept, necessary character and key ability gradually formed by students through subject learning, and it is the concentrated embodiment of the value of subject education including four dimensions: language ability, learning ability, thinking quality and cultural character. Language ability focuses on understanding and expression ability; learning ability focuses on learning strategies and consciousness; thinking quality focuses on the cultivation of logical thinking critical consciousness and innovation of thinking ; the key to the cultivation of cultural character is cross-cultural awareness and behavior orientation.

The General Senior High School English Curriculum Standard (2017 Edition) lists the key competences of English subject includes four dimensions: language ability, thinking quality, cultural consciousness and learning ability, which reflect the requirements of language ability and cultural awareness unique to the connotation of English subject (Table 2) It also includes the cultivation of thinking quality and learning ability as a basic discipline, in which thinking quality is the most important and closest to the development of students' personality. It is also a dimension with the highest degree of target discrimination in the cultivation of comprehensive language ability. The so-called thinking quality, that is, speculative ability, critical thinking. The most authoritative definition comes from The Delphi Report: purposeful, self-regulatory judgment, a self-rectifying human phenomenon, which means that students construct knowledge through prediction, identification, comparison, discrimination, generalization, reasoning and other thinking activities in the language practice of understanding and expression. Form logical, critical, creative thinking.

Table 2
The key Competences of English Subject

| | |
|--|---|
| L a n g u a g e a b i l i t y . | Listen to; speak; read; write; see. A sense of language; a sense of English. |
| | Language knowledge; context; integration. Text. Interpersonal communication. |
| c u l t u r a l c o n s c i o u s n e s s | Knowledge quality; Humanistic cultivation; Behavioral orientation. Cultural knowledge; cultural connotation; cultural similarities and differences; cultural essence. Values; moral feelings. |
| | Cross-cultural communication; dissemination of excellent Chinese culture. |
| T h i n k i n g q u a l i t y . | The logic of thinking; criticism; innovation. Discrimination; classification; generalization; construction; analysis; inference; judgment; rational expression. |
| L e a r n i n g a b i l i t y . | Learning strategy; learning channel; learning efficiency. Learning interest; goal awareness; learning resources; learning time; learning tasks; strategies and methods. Monitoring; reflection; adjustment and evaluation of learning |

The logic of thinking is mainly manifested in the rules and laws of thinking, which specifically involves mental activities such as concept, judgment and reasoning. The critical nature of thinking lies in the attitude and behavior of questioning and verifying, not blankly accepting a point of view, nor arbitrarily rejecting a kind of thought, and verifying the truth and falsehood of things in the right way. The creativity of thinking focuses on seeking differences, seeking innovation, not sticking to stereotypes, daring to imagine, good at changing, bringing forth the old and bringing forth the new.

The Curriculum Standard (2017) clearly puts forward the quality of thinking, emphasizes the logic, criticism and creativity of thinking, and divides the thinking products according to the three levels. The difference of horizontal level is mainly manifested in the degree of difficulty, complexity, depth and breadth and so on.

For example:

level 1: according to the information obtained, extract the common features, form a new simple concept, and try the new concept to explain the new problem, try to understand the world from another angle;

Level 2: according to a variety of information obtained, sum up the common elements, construct new concepts, and through deduction, explain and deal with new problems, understand the world from another perspective;

Level 3: according to the comprehensive information obtained, sum up and summarize the laws of internal formation, construct new concepts, and in practice, used to deal with and solve new problems, from multiple perspectives to understand the world.

In terms of information complexity, level one only involves general information, level two requires a

variety of information, and level three puts forward the comprehensiveness of information. In the aspect of summing up mental activities, level one only requires the common characteristics of information, level two is the “common element” of information, and level three raises the requirements to the “inherent law” of all kinds of complex information. In the concept construction, level one only mentions “forming a simple concept”, level two and level three require “constructing a new concept”. The difference between the requirements of the latter two levels mainly lies in the use of concepts to deal with problems. In the application of the new concept, level one requires “trial” and “interpretation”, level two requires “interpretation” and “treatment”, and level three requires “handling” and “solving”. In the understanding of the objective world, the requirement of level one is just to “try” another angle to understand the world, level two removes the word “try”, and level three puts forward the requirement of “multi-perspective”. From the above interpretation, we can see that the three levels of thinking quality reflect the different difficulties and gradients that students should gradually achieve.

Students’ thinking quality does not develop synchronously, and there are differences between them, so the three levels of thinking quality do not simply correspond to compulsory, selective compulsory and elective courses. And measure the quality of a student’s thinking at any stage of his or her study. Some students already have the third level of thinking quality in the stage of compulsory courses, while others are still in the first level of thinking quality when taking selective compulsory courses. We should allow this difference to exist. For teachers, the division of level level mainly helps them to select different difficult materials, design learning activities with different levels of complexity, set different learning goals and evaluation standards, and teach students in accordance with their aptitude.

3.3 Investigation and Design

3.3.1 Object of Study

The subjects of this study are all of the students in Grade 2 of YJ Middle School in BB City, totally 248. The same grade of MS in the United States, so as to explore the consistency and difference of thinking quality in English subject.

3.3.2 Design of Measuring Tools

According to the “Senior High School English Curriculum Standard (2017) “ and the interpretation of the thinking quality in the key competences, the questionnaire refers to “critical thinking: what is it?” Why is it important? (2015) “critical thinking self-evaluation form” and a questionnaire on the cultivation of key competences in English discipline in Meng Yuan’s (2018) master thesis. At the same time, it is also designed according to the actual situation of English teaching for junior high school students. The questionnaire starts with the three dimensions of the cultivation of

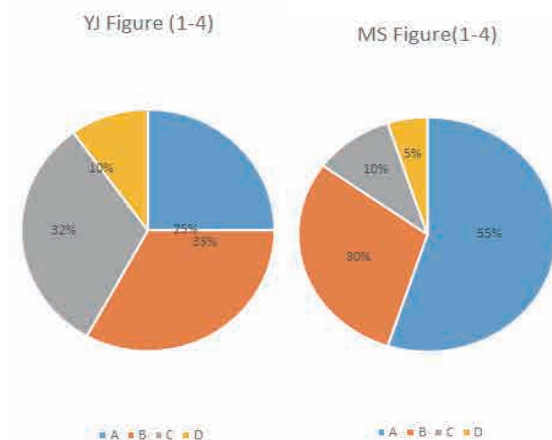
thinking quality, that is, the logic, criticism and innovation of thinking, to understand the current situation of students' thinking quality in junior high school English curriculum and to find and analyze the problems. The logic of thinking dimension includes "do you think about its source when you encounter a new point of knowledge in English learning?" four questions (x1-x4); the dimension of criticism contains "will you reflect on your own learning in English learning?" four questions (x5-x8); the dimension of innovation includes "will you express your different views in English class?" four questions (x9-x12), totally 12 questions.

Table 3
YJ Middle School

| | | | | | | | | | | | | |
|---|----|----|----|----|----|----|----|----|----|----|----|----|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| A | 50 | 62 | 51 | 81 | 78 | 53 | 57 | 73 | 46 | 74 | 59 | 58 |
| B | 90 | 83 | 99 | 57 | 66 | 57 | 61 | 65 | 71 | 61 | 60 | 66 |
| C | 83 | 85 | 65 | 88 | 74 | 93 | 81 | 69 | 95 | 86 | 88 | 78 |
| D | 25 | 18 | 33 | 22 | 30 | 45 | 49 | 41 | 36 | 27 | 41 | 46 |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |

Table 4
MS Middle School

| | | | | | | | | | | | | |
|---|-----|-----|----|----|-----|-----|-----|-----|-----|-----|-----|----|
| A | 103 | 150 | 98 | 96 | 107 | 123 | 112 | 102 | 130 | 106 | 136 | 96 |
| B | 60 | 40 | 70 | 67 | 70 | 68 | 61 | 83 | 66 | 57 | 61 | 40 |
| C | 27 | 8 | 20 | 29 | 19 | 8 | 18 | 10 | 5 | 28 | 4 | 40 |
| D | 12 | 4 | 14 | 10 | 6 | 3 | 11 | 7 | 1 | 11 | 1 | 26 |



Logical thinking is a kind of thinking which takes concept as thinking material and language as carrier, and has sufficient basis for each step. It is characterized by abstractness, and its basic form is concept, judgment and reasoning. Therefore, the so-called logical thinking ability is the ability to think correctly and reasonably.

It can be seen that the logical thinking of domestic junior high school students is not strong, most of the students' information processing ability and problem-solving ability are weak, they need guidance in this respect. However, almost American junior high school students always choose to think about its source when come across a new point of knowledge, try to collect the relevant information and analyze it to draw a conclusion

3.3.3 Questionnaire Survey and Result Analysis

The author distributed the student questionnaire in early October 2019. Recall a valid questionnaire 248 in Grade 2 of YJ Middle School, the recovery rate of students' valid questionnaire is 248 (Table 3). Recall a valid questionnaire 202 in Grade 2 of MS Middle School, the recovery rate of students' valid questionnaire is 202 (Table 4). The students' questionnaire is distributed in the class meeting, they have free time, and they can answer the questions easily and seriously. In order to ensure the objectivity of the data, the author prepared some small gifts for the students who participated in the questionnaire.

about interesting problems, still think over them rationally and logically in the face of complex problems, deal with problems in an organized way, as well.

In order to make junior high school students really have the ability of logical reasoning and improve their ability to solve problems, we should also pay attention to the following abilities in education and teaching.

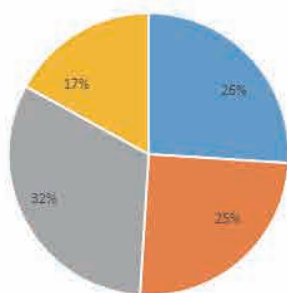
a. The ability to deeply understand and flexibly use basic knowledge. Logical reasoning requires a strong accumulation of knowledge, so as to provide a sufficient basis for each step of reasoning. An example in life illustrates: "Why are chopped radishes better boiled and tasted better than neatly chopped radishes?". A junior high school student did not know how to answer, but his mother explained it very well: "because chopped radish has a larger surface area and absorbs more calories than neatly cut radish, all kinds of seasoning can get into radish better. "Of course it's better boiled and tasted better. It is obvious that the mother's understanding and application of the knowledge of daily life is far stronger than that of her children. Therefore, the ability to understand and flexibly use basic knowledge is the basis of students' logical reasoning ability.

b. Imagination. Because logical thinking has strong flexibility and development, giving full play to imagination plays a great role in improving the ability of logical reasoning. The more solid the knowledge base, the wider the scope of knowledge, the more able to give full

play to their imagination. Of course, it doesn't mean that the more knowledge you have, the more imaginative you are. It is necessary to develop the habit of understanding things from multiple angles and comprehensively understand the various relations between the interior and the outside of things and between something and other things in order to expand their imagination. This is of great significance to the improvement of logical thinking ability.

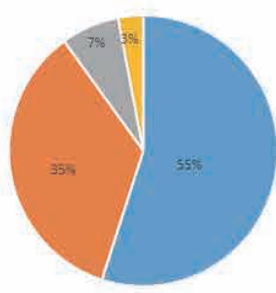
c. Language ability. The quality of language ability not only directly affects the development of imagination, but also logical reasoning depends on rigorous language expression and correct written expression. Therefore, attaching importance to the cultivation of students' language, especially the cultivation of mathematical language and geometric language, is an indispensable key to the formation of students' logical reasoning ability.

YJ Figure (5-8)



■ A ■ B ■ C ■ D

MS Figure(5-8)



■ A ■ B ■ C ■ D

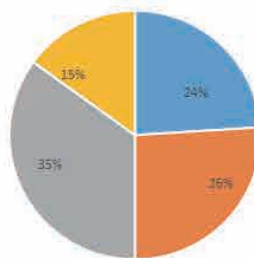
Critical thinking is the most basic and creative form of thinking in evaluation, exploration and development activities, and it is a prerequisite for putting forward and solving problems. There have always been different definitions of critical thinking, but they all have something in common. Michael Scriven and Richard Paul (1996) believe that critical thinking is "the training process of intelligence. " This process actively, skillfully, skillfully applies, analyzes, synthesizes or evaluates information obtained from observation, experiment, introspection, reasoning, communication, and uses it to guide beliefs and actions. "The application of critical thinking in English classroom teaching can encourage students to speculate, comment and form conclusions about what they have learned and future information. Stimulating and developing students' critical thinking requires teachers to create tasks and activities and adjust teaching steps and materials in order to promote the development of thinking. Critical thinking in English teaching can enable students to understand the category of subjective analysis and the development of self-consciousness, and understand the complex relations and related factors.

From this data, domestic junior high school students are quite lack of critical thinking, the awareness of

challenging authority is relatively weak, lack of awareness of seeking truth. Only 26% domestic junior high school students always choose to reflect on studies, ask the teacher about puzzling questions, against following the crowd when discussing a topic which is supported by most people.

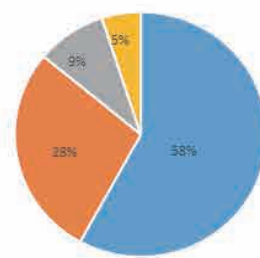
American education respects children's independent thinking, encourages students to question boldly, demonstrates carefully, and cultivates students' scientific rationality. In the 20th century, critical thinking was clearly advocated. In the 1940s, critical thinking was used to mark a theme of American educational reform; in the 1970s, critical thinking became the focus of American educational reform; in the 1980s, critical thinking became the core concept of American educational reform. On the other hand, family education in China has taught children to "obey", "understand the rules" and even "be clever" from an early age. Instead of being arranged by parents, children lack independent thinking. Parents' main expectations of their children are academic performance and future success, and there are few expectations for ingenious ideas. Our school education pays more attention to conclusion than process, knowledge memory, thinking development, teacher teaching, independent inquiry, standard answer, question consciousness, sea tactics and scientific rationality.

YJ Figure (9-12)



■ A ■ B ■ C ■ D

MS Figure



■ A ■ B ■ C ■ D

This shows that domestic students' participation in the classroom is not high, lack the courage to ask questions and solve problems, and if they do not answer questions actively, they will not be able to verify their ideas. Therefore, the quality of English thinking is difficult to exercise and improve.

Domestic junior high school examination-oriented education is more common, its advantage is that students will be more adapted to a variety of examination questions, and basically master its problem-solving methods, will not be too unable to find a clue, the examination results will be relatively ideal. Excellent test results are very important to enter a good high school, college, even in the United States, famous universities will take SAT and other test results as one of the admission

considerations. On the contrary, examination-oriented education will also limit students' perspective of thinking and space for innovation. Now students will only answer questions in accordance with the teacher's problem-solving routines, think of all the questions are in "I want to answer this question score" on the basis, do not dare to write their own personal opinion of the answer, gradually innovative thinking ability has degraded a lot. When it comes to questions, all kinds of classic routines come to mind, sometimes just for the exam, forgetting the meaning and joy of real reading and learning. In the United States, education is mainly based on the interest of students, and the concept of examination results is relatively weak. Teachers will teach students in a variety of fun ways, such as some public welfare websites, course-related animated short films, etc., learn knowledge from games and practical operations, and tend to think about the cultivation of innovative ability.

In the English class of junior middle school in China, if the speaker speaks the wrong answer or is completely different from the teacher's teaching plan, it will be criticized as a mistake. Sometimes, some wild ideas will be secretly ridiculed by students, or become what the teacher calls "whimsical, not on the right way, do not do business every day of the silly child." So over time, those who raise their hands no longer dare to rise, their own innovative ideas gradually flinched, for fear of wrong answers, or because the teacher is not satisfied with the punishment. But in the United States, students can hold their own and talk freely in class. The teacher will never say that a student's idea is wrong, even if sometimes their ideas are indeed a little irrelevant and difficult to understand, but the teacher will let them slowly explain and help explain. In fact, everyone's thinking ability is much the same when they are born, but in an American educational environment, students may be more daring to express their ideas, stick to their ideas, and sometimes even have debates in class. It may be between students and students, or it may be between students and teachers.

4. THE ESSENCE OF DIFFERENCES

The cultural differences between China and the United States are self-evident, and the root causes of the differences in thinking quality between the two countries are compared and analyzed from the perspective of English curriculum, including classroom teaching, reading and writing.

The English Curriculum Standard of compulsory Education (2011 edition) puts forward that "English curriculum undertakes the task of cultivating students' basic English literacy and developing students' thinking ability". Language is not only a tool of communication, but also a tool of thinking. "Learning is about learning to think," Dewey said. "What schools can do or need to do for students is to develop their ability to think." From the perspective of human cognitive law and nervous

system development, first, human cognition has natural cognitive defects, only rely on natural cognitive ability, can not form accurate cognition, it is difficult to quickly find a solution to the problem. On the other hand, human beings need to recognize the phenomenon accurately, and human beings also need to solve the problem quickly. Second, the development process of each person's neural system is different, and the degree of development of thinking ability is different. The difference of nervous system and thinking development of each individual leads to the difference of cognitive accuracy and speed of each individual to the phenomenon. That is, some people see the problem more accurately than others, and it is faster to find a solution to the problem. The quality of thinking determines the quality of the results of each individual's thinking and helps us to recognize phenomena more accurately and form problem solutions more quickly (of course, it is impossible for human beings to recognize phenomena absolutely accurately. Nor is it possible to quickly form the ultimate solution to any problem). Therefore, junior middle school students need to develop the thinking quality by education.

4.1 The Idea of Domestic English Classroom Teaching

In the daily domestic English classroom teaching, some teachers only pay attention to whether their teaching process is smooth, whether the interaction with the students is in place, and whether the classroom atmosphere is lively, while neglecting the cultivation and implementation of students' thinking quality. It is not conducive to the lifelong development of students, mainly reflected in the following aspects:

4.1.1 Teachers Lack the Consciousness of Cultivating Students' Thinking Quality

The traditional examination-oriented education makes some teachers used to locate the teaching goal of each class mainly in the section of language knowledge and language skills, but never consider the cultivation of thinking quality. Other teachers simply think that junior high school students' English learning is mainly to cultivate children's interest in English, especially in lower grade English teaching, so design more teaching activities that students are interested in in class, and students are highly excited in the whole class. However, it is not so concerned about whether each teaching activity develops students' cognitive ability and trains students' thinking ability.

4.1.2 Teaching Activities of Thinking Quality Are Difficult to Implement

Although some teachers intend to cultivate students' thinking quality, they do not know how to implement it effectively in class, and they do not know exactly what aspects of thinking ability children should develop in junior middle school. Or simply think: the more open-ended questions, the better, is to develop the thinking of students; and the less close-ended questions the better.

4.1.3 The activities of designing junior high school students' language ability are more demanding.

The use of language is the basis for the development of students' thinking quality activities, so when designing classroom teaching activities, teachers must design students' language proficiency according to their age and psychological characteristics. And develop their quality of thinking. This puts forward higher requirements for most of the first-line junior middle school teachers.

4.2 The setting of English Curriculum

As far as English subject is concerned, due to the language problems of some students, English class is divided into general English class and ESL (English as a second language) course in the United States. In the implementation of the course, English class is called language art class, which is mainly composed of reading, grammar and writing. The teaching method is similar to the Chinese curriculum in Chinese middle schools and the listening, speaking, reading and writing classes of foreign professors majoring in English in Chinese universities.

4.2.1 Teaching Material

The teacher has an outline and the students have no textbooks. The language art curriculum in American middle schools usually does not use fixed teaching materials, especially those that have been processed and explained, because professional teachers believe that textbooks stipulate teaching contents and methods, which are more rigid and more restrictive. Lack of purpose of learning language, but also in order to protect the childish hearts of young people, so that they have discrimination and criticism, compassion and pluralistic values. Therefore, teachers often distribute paper with the tasks and knowledge of this lesson in class for classroom interaction or related tests.

However, the teacher will designate some reading materials as textbooks, analyze the articles from the aspects of content, theme and writing techniques, and ask the students to complete the relevant assignments or tasks in class. And then discuss or test it in the next class. Among them, the stage test is about once every three weeks or four weeks, and the teacher will ask the students to answer the following questions briefly for each exam and write down: first, which question is the most difficult and why? Second, which question is the easiest and why? Third, what learning strategies did you use during the exam and how did they work? Fourth, what should you do in the future? When the students are finished, the teacher asks the students to write their names and collect them. Logic and speculation are outstanding, which is worthy of reflection and reference of Chinese English educators.

4.2.2 Reading

Reading is the best way to learn a language. American students have developed a good habit of reading from an early age. Whether in the upper and lower grades, especially during the holidays, schools and parents will

ask their children to read works of the corresponding school age. Students need to be informed of the title of the book, the time of publication, the main image and description, the background (time and place), the possible plot conflicts, the rating (5 4 3 2 1, 5 is the best, 1 is the worst), and the reasons for the rating. Students can recommend their favorite books and share the joy of reading, or they can be used as teaching materials to learn together, highlighting the concept of openness, democracy and tolerance in the United States.

a. The amount of reading is large, and the content is mainly novels and modern works.

The American middle school language art course reads about seven books per school year, and most of them are complete novels and modern works, and then the corresponding tasks are assigned to test the reading quality and comprehension ability.

The novel is a typical fictional work, which just makes up for the gaps in the knowledge of society, history and other subjects in which middle school students learn non-fiction works before middle school. Moreover, the multi-tone rough picture of social life in the novel and the deep disclosure of human nature can provide the tension of thinking and the space of exploration, let students play association, and help to cultivate their critical thinking and develop their independent personality. American science fiction films are famous. For example, the creation of the "Avengers" series, which has spread all over the world, is inseparable from the novelist's extraordinary imagination and sense of exploration, and these outstanding creative inspiration is based on the cultivation of reading education.

The advantage of reading modern works is that the content is close to life, it is easy for students to connect with reality and resonate, combine with the reality of reading novels, in the reading level more full, improve literary accomplishment.

b. Reading attaches importance to accuracy, criticism and imagination.

The reading in the language art course emphasizes the thematic research model to carry out reading teaching. For example, in the teaching with the theme of "war", teachers can choose relevant novels as classroom reading materials around the theme, or they can assign relevant reading and tasks in advance, and learn knowledge through teachers' review or group discussion. The process of reading is precisely in the process of research, students to learn to read carefully, can take notes, fill in forms or self-question and answer and other ways to sort out the plot of the article, grasp the central idea of the text.

Reading strategies generally follow a gradual principle, from the most basic "right and wrong" questions and answers, gradually guide students to "open" reading, so that students can find and think about questions, answer can be flexible and diverse, seek common ground while reserving differences. Do not practice "cramming"

reading. Common reading methods: (1) ask questions about the text in order to better remember and understand, at the same time, this is what people who can read often do; (2) clarification: when you want to figure out what you are reading, you need to slow down or read it over and over again until you understand. You can use the clues in the text to help you understand the words or other content that you are confused about. (3) Prediction: combine the clues in the text to predict or guess what will happen next; (4) Summary: summarize the most important points or arguments in your own words and in only one or two sentences. This reading strategy can help readers remember what they read; (5) imagine: forming an image in your mind will help readers better understand the text or solve difficult problems. Foreign teachers similar to Chinese college English majors in the classroom of listening, speaking, reading and writing very much encourage students to identify problems in time and carry out group discussions, which can discuss the expression techniques, themes, characters and so on. Brainstorming in the discussion, there is no absolute standard answer, the purpose is to diverge thinking, dare to question, stimulate creativity. At the end of the class, there will be exploratory writing tasks, make full use of writing to show the reading, thinking and imagination of middle school students, and improve the comprehensive understanding.

4.2.3 Writing

Writing is one of the iconic abilities that American general education pays attention to, and it is also a compulsory course in English course in middle school. Writing urges students to think deeply about the problems, discover the hidden flaws in their own thinking, and collect multi-information and multi-angle views to improve their own views. Moreover, the process of writing exercises the students to express their views in a persuasive and meticulous way, covering the use of lexical information and grammar. In a word, the ultimate essence of writing is to stimulate students to explore, research and express, to some extent, this is the comprehensive literacy of first-class innovative talents in the future.

a. Multi-stylistic writing: make students think and express fully.

Multi-stylistic writing is an innovative exploration of writing teaching. The so-called multi-stylistic writing is to write with different styles around the same topic and the same topic, skillfully combine several styles together, and learn the writing methods of various styles in a series of writing. In multi-stylistic writing, students can use different genres and styles to present their knowledge of the topics and subjects they write. At the same time, they can also present their voice, enthusiasm, skills and abilities as writers in their compositions. For example, a piece of writing can be expressed in a variety of ways, such as narration, lyricism, explanation, and so on. The style can include myths and legends, poetry, dialogue stories, sketches, stream of consciousness fragments, news

reports, encyclopedia entries, charts, diaries, etc. , and can also be equipped with cartoons and so on.

b. Strive to ensure quality and quantity.

Three or four styles of writing can be completed in about 16 weeks of a semester. The writing requirements for the whole semester are at least one narrative, several poems and two or three argumentative papers. The grading criteria commonly used to grade writing assignments include emphasis, main points, reading / research, development, organization, written language practices and content understanding.

In class, teachers will determine the order of several kinds of stylistic training according to the sequence of life situation and ability, and let students determine the title and content of writing according to their own interest. The teacher of each style of writing will first demonstrate, the students will try to write again and again, and then share the work, and then go to the writing teacher of the next style to guide the students and complete the revision until the end of the writing, with photos, dedication, and so on bound into a book. Everyone can compile a collection of works to communicate and share, so that the creative combination of a variety of results, not only mobilize the enthusiasm of students to learn, but also permeate the spirit of research, and cultivate the pursuit of creativity.

The English class in American middle schools teaches students how to be discerning readers, keep a certain distance from the text, learn to analyze various literary skills, and appreciate or criticize the author's writing techniques from their own point of view. It is not that the knowledge of textbooks is the main knowledge in English or Chinese classes in China, and it is not the case that textbooks are the main knowledge in Chinese English class or Chinese class, which is not based on textbook knowledge in Chinese English class or Chinese class. In the face of the similarities and differences in English education, the spirit of innovation and inquiry in English classes in American middle schools is worth using for reference, that is, first of all, to identify, analyze and summarize the problems and arguments, and on this basis to express their well-founded views. Draw a conclusion in line with the actual situation, and put forward a feasible solution.

5. IMPLICATIONS

From the above data analysis, it can be seen that the cultivation of domestic junior high school students' English thinking quality is not optimistic, and the students' logical, critical and innovative thinking is weak. Difficulties in developing students' thinking quality in English subject of Junior Middle School in China.

5.1 Draw a Subject Thinking Map

In process of teaching, teachers can use joint ideas to teach. For example, when learning words containing “-an”,

the teacher can draw a mind map with the students, which is both divergent and concentrated, and helps students learn Asian, African, European, American and other words together. Students can memorize multiple words in the comparison. The efficiency of learning is better (Figure 3).

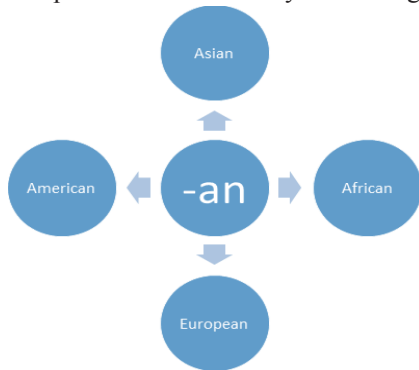


Figure 3
Draw a mind map about “-an”

The main role of subject thinking map here is to effectively integrate language knowledge, enable students to effectively memorize the knowledge framework in the process of learning, and constantly improve their practical ability. Help students learn to use classified thinking. However, in the process of teaching, teachers should pay attention to cultivating students’ autonomous learning ability, improving students’ autonomy, promoting students’ enthusiasm for learning, giving students enough time to think, and strengthening the exercise of students’ thinking ability. To promote students’ study and arrangement of subject knowledge. Subject thinking map is flexible, junior middle school English education exploration is broad, both of them have great potential for development, and subject thinking map is used in the process of English teaching in middle school. It can effectively improve students’ innovation ability. Students should be good at seeking, dare to practice, good at summing up; teachers should carry out more thinking and innovation, with a scientific attitude to introduce subject thinking map and use it, in order to achieve the purpose of improving the quality of students’ thinking.

5.2 Pay Attention to the Cultivation of Logical Thinking Quality

5.2.1 Pay Attention to the Cultivation of Logical Thinking Quality

Logical thinking is to achieve the understanding of the essential characteristics and internal relationship of things in the form of concept, judgment and reasoning. Language learning includes not only the process of perception and experience, but also the process of analysis and comparison. Perceiving and experiencing language can enable students to understand context and meaning, while the process of comparison and analysis can enable students to understand the form of language and how the language is expressed. Therefore, it is very important

for foreign language acquisition to cultivate students’ logical language thinking quality. For example, when introducing the topic of the text, some teachers introduce the characteristics of different professions in the form of guessing puzzles, and the students guess the occupation according to the limited information provided by the teacher and the logical relationship between the language. The ability of logical thinking has been trained and improved in this link.

5.2.2 Pay Attention to the Cultivation of Critical Thinking

In classroom teaching, it is a good thing for students to have questions. It is the fulcrum to inspire students’ thinking and open up their steps to explore knowledge. Therefore, teachers should jump out of the traditional teaching mode, encourage students to change the inherent mode of thinking, selectively and critically accept knowledge, improve the ability to judge text information, and cultivate the criticism of thinking in questioning. For example, when teaching the new word “miss”, there is only one interpretation in the text. According to past experience, students think that there is more than one interpretation. Sure enough, by looking up English dictionaries, students know that there are two interpretations-”missing” and “losing”. In fact, the process of students’ questioning and guessing is the process of opening their minds and thinking. Students are not limited to a knowledge point to look at the problem, effectively broaden their own knowledge. Therefore, teachers should excavate more language information inside and outside the textbook, provide students with rich materials, and train students’ critical thinking.

5.2.3 Pay Attention to the Cultivation of Creative Thinking Quality

The cultivation of creative language thinking is an important guarantee for students to realize reasonable language output in real situations. Teachers should design speculative tasks in class to improve the creativity of students’ thinking quality. For example, in “Birthdays”, a teacher groups students according to their birthday months and gives them group birthday parties. According to the new content, students exchange ideas for the party and design invitations. In the lesson “Our dreams”, a teacher organizes students to watch short historical films about time capsules, and then asks students to write about their dreams and aspirations for themselves and their classmates 20 years from now. These task activities, which are in line with the characteristics of students’ age, stimulate students’ creative thinking and cultivate students’ ability to reasonably choose and use language in combination with specific context.

CONCLUSION

In view of the problem that teachers are unconscious or conscious but do not know how to carry out the

cultivation of thinking quality, what should be used for reference is that teachers should first strengthen their own study of educational theory, improve their own core English literacy, and establish a great view of education. Instead of just staying at the subject level to understand today's education and teaching; Secondly, in the process of teaching practice, we should constantly reflect and summarize, take interest as the guidance, promote the formation of students' thinking quality, play a leading role in demonstration, appropriately increase extracurricular reading, and promote the cultivation of students' thinking habits. Thus, it is necessary to learn from American education of thinking quality.

Cultivating students' thinking quality in English subjects, it is to guide students to analyze and compare the similarities and differences of language and cultural phenomena, to summarize the characteristics of language and discourse, and to identify language forms and the function of discourse structure, analyzing the viewpoints, attitudes and values contained in discourse, so that students can have the mode of thinking such as observation, comparison, analysis, inference, induction, generalization, construction, identification, evaluation, and, induction, generalization, construction, identification, evaluation and innovation, so as to enhance the logic, criticism and creativity of thinking, and improve thinking quality (Xia, 2017).

In addition to the students' own reasons, the low quality of students' thinking has a lot to do with the teachers. According to the requirements of the development of the times and the actual situation of the development of middle school students, junior middle school English teachers should take effective methods to promote the efficient development of junior middle school English classroom and improve the English key competences of junior middle school students. To cultivate and develop students' thinking quality in English subject is to guide students to observe language and cultural phenomena, to analyze and compare their similarities and differences, to sum up the characteristics of language and discourse, and to identify the functions of language form and discourse structure. To analyze and evaluate the viewpoints, attitudes, emotions and intentions carried by the text, and to help students learn to observe, compare, analyze, infer, induce, construct, identify, evaluate, innovate and other ways of thinking, and to help students learn to observe, compare, analyze, infer, induce, construct, identify, evaluate and innovate. Enhance the logic, criticism and creativity of thinking, and improve the quality of thinking. At the same time, the improvement of thinking quality is beneficial to enhance students' English language ability, improve the efficiency of autonomous learning and form cross-cultural awareness.

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APPENDIX

A Questionnaire on the Thinking Quality of Junior Middle School Students from the Perspective of Key Competences of English Subject.

Dear Students,

Hello! In order to investigate the current situation of junior high school students' thinking quality from the perspective of key competences of English subject, please fill in the following questionnaire realistically.

This questionnaire only reflects your most real basic learning situation, and makes a reasonable and accurate evaluation of your English learning situation, rather than other people's or ideal ideas and practices. The questionnaire should be filled out anonymously, never involving personal privacy, and the content of the answer will be strictly confidential. There is no right or wrong answer, but whether it is true or not will directly affect the reliability of the survey results. Please read each question carefully, choose the answer that best suits your actual situation, and fill in the corresponding options in parentheses for a total of 12 questions. This questionnaire is for research only and will not be used to evaluate any individual teacher or student. Thank you!

1. When you come across a new point of knowledge, do you think about its source? ()
A. Always B. Often C. Occasionally D. Never
2. When you are interested in a problem, will you try to collect the relevant information and analyze it to draw a conclusion? ()
A. Always B. Often C. Occasionally D. Never
3. Even in the face of complex problems, do you still think over them rationally and logically? ()
A. Always B. Often C. Occasionally D. Never
4. Will you deal with problems in an organized way? ()
A. Always B. Often C. Occasionally D. Never
5. Will you reflect on your studies? ()
A. Always B. Often C. Occasionally D. Never
6. When you come across knowledge that you don't understand, will you take the initiative to ask the teacher? ()
A. Always B. Often C. Occasionally D. Never
7. Will you express your opinion in class and ask the teacher questions? ()
A. Always B. Often C. Occasionally D. Never
8. When discussing a topic in class, if a point of view is supported by most people, will you against following the crowd? ()
A. Always B. Often C. Occasionally D. Never
9. Do you often come up with innovative ideas? ()
A. Always B. Often C. Occasionally D. Never
10. For classroom interaction, you often ()
A. actively participate after thinking. B. wait and observe other students' response, do not participate.
C. think over but not actively participate. D. do not care
11. Will you try new ways to solve the problem? ()
A. Always B. Often C. Occasionally D. Never
12. Will you find and ask questions that are not mentioned in the textbook during the course of your study? ()
A. Always B. Often C. Occasionally D. Never