

The Construction of the Core literacy Cultivating System for College Students

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Keywords: Core literacy, Information literacy, Cultivating System, College students

Abstract: With the continuous advancement of higher education reform, literacy education is gradually entering people's horizons to replace the traditional "examination-oriented education". In 2016, with the release of The development of core literacy for Chinese students framework. the government has made clear requirements for the development of the core literacy of all students. This study is based on the goal of cultivating core literacy for students in Chinese colleges in response to the requirements of Education development in china. It attempts to build a cultivating system suitable for the development of the core literacy of college students from the aspects of cultivating subjects, cultivating levels, cultivating content and cultivating patterns etc,to promote the development of core literacy of college students in china.

1. Introduction

As we all know, the field of education in China has undergone a series of changes since the 1980s. The literacy education has become more and more popular and gradually replaced "rigid" examination-oriented education on the basis of fully drawing on a variety of knowledge and nutrients,such as constructivist learning theory, lifelong learning theory, and multiple intelligence theory. The Article 11 of the "Work Points of the Ministry of Education for 2014" document formally proposed the "Core Literacy System for Student Development" and emphasized that "research should be carried out to build a core literacy system for college, primary and secondary school students" in January 2014.In March and April of the same year, the Ministry of Education made specific requirements and explanations for the "core literacy system for student development" and formally proposed the establishment of a "core literacy" cultivation system for students according to school age. *The development of core literacy for Chinese students* framework was officially released at Beijing Normal University in September 2016,requiring Chinese educational institutions at all levels to build a corresponding student core literacy cultivation system against this framework and implement it in specific educational and teaching work.

2. Cultivation of Core Literacy for College Students under the Framework of The development of core literacy for Chinese students

2.1 The Development of Core Literacy for Chinese students Framework

The development of core literacy for student mainly refers to the necessary characters and key abilities that students should have and be able to meet the needs of lifelong development and social development. *The development of core literacy for Chinese students* framework was commissioned by the Ministry of Education in china and led by Beijing Normal University to set up a research team that lasted for three years. The framework takes the "all-round development of people" as the core, and summarizes the six core literacy modules, including humanistic heritage, scientific spirit, learning, healthy life, responsibility, and practical innovation. It also details 18 basic points such as rational thinking, critical questioning, courage to explore, music and learning, diligence in reflection, information awareness, sound personality, and self-management.

In addition, the connotation and performance of each basic point in the framework are explained in detail. Among them, the scientific spiritual literacy module requires cultivating students 'rational

thinking, critical questioning, and the courage to explore the scientific research spirit; The learning literacy module requires cultivate students 'good habits of music learning, diligent reflection, and information awareness; In the social responsibility literacy module, it is necessary to cultivate students 'team awareness, mutual support spirit and responsibility; In the practice of innovation literacy module, students need to develop the ability to find problems, solve problems, and innovative research and application capabilities; In the module of healthy living literacy, it is necessary to develop students 'self-perception and self-evaluation ability.(Fan,Yi,2016)

According to this framework and its specific basic points of expression interpretation, combined with the basic and higher education goals and objectives of our country can further propose the core literacy cultivating goals of students at all stages of our country and develop the corresponding core literacy cultivating system.

2.2 The Goal of Core Literacy Cultivating for College Students

In essence, the core literacy Cultivating of student is to realize the development of students' ability to assist students to complete their learning tasks and finally achieve the educational purpose of China's primary and higher education. Therefore, the target of the core literacy cultivating of each phase depends on the students' phase educational purpose. The *Outline of China's Education Reform and Development* published in 1993 mentioned that "the task of higher education in China is to cultivate high-level professionals with innovative spirit and practical ability to promote socialist modernization." That is, on the basis of students forming basic social literacy, pay attention to improving students' professional literacy, lifelong learning ability, scientific research and innovation ability, scientific exploration spirit, and practical application ability. (Ministry of Education of the people's Republic of china,1993)

Therefore, by referring to *The development of core literacy for Chinese students* framework, we sum up the development goals of our college students 'core literacy, focusing on the basic points of rational thinking, critical questioning, courageous inquiry, willingness and competence for study, diligent reflection, information awareness, self-management, and social responsibility. That is, it further embodies the scientific research spirit of cultivating students 'rational thinking, critical questioning, and the courage to explore; The good habit of efficient learning and diligent reflection; Identifying problems, the ability to solve problems, and the ability to innovate research and application; Information awareness, team awareness, mutual support spirit and responsibility; Self-management, cognition and evaluation ability.

At the same time, information literacy education in colleges has always been regarded as an important way to cultivate the information consciousness, information processing ability, lifelong learning ability, scientific research innovation ability and scientific spirit of college students, and to create innovative talents. Its educational purpose also partly reflects the core literacy development requirements of Chinese college students.

The information literacy education in colleges was originally proposed by the Ministry of Education and the college library was responsible for specific education work. However, it has not been valued by colleges for many years. It has always faced problems such as short teaching time, little participation of teaching subjects, single teaching patterns, and teaching content. (Xiaojuan ,Zhang,etc,2012).

For this reason, we can rely on the faculty strength and education system of information literacy education in colleges, and deepen and innovate the teaching subject, teaching content, teaching model, and teaching evaluation according to college students' core literacy cultivation goals, to achieve the goal of cultivating the core literacy of college students under the framework of The development of core literacy for Chinese students.

In addition, since The development of core literacy for Chinese students framework was officially released on September 9, 2016, domestic scholars are not paying too much attention to it. As of April, 2018, when searched in the CNKI database, only 47 related search results(including newsletters and reports) were retrieved, and no research results about the cultivation of college students 'core literacy were found. Therefore, it is also worthwhile exploring and studying the

construction of the college students' core literacy cultivation system based on the framework of The development of core literacy for Chinese students .

3. Construction of Core Literacy Cultivation System for College Students

In summary, we are developing a collaborative, progressive, goal-oriented and diversified core literacy system for college students (Figure1). This is based on the information literacy training system of Chinese colleges and in accordance with the framework of *The development of core literacy for Chinese students*. The establishment of various organizations and the enforcement of every sector help ensure the realization of the overall goal, which in turn contribute to the cultivating process of students' core literacy in the new era. "Collaborative" means that the cultivation of the subject is jointly undertaken by the colleges library, school, teaching office, and government; "Progressive" means that the process of cultivation is systematic, phased and gradual according to the students' learning characteristics; "Standardized" means that the content is in accordance with the core literacy proposed by the framework *The development of core literacy for Chinese students*. "Diversified" refers to the realization of multiple types and methods including cultivation models and evaluation of cultivation effects.

3.1 "Collaborative": Cooperation for Effectiveness

For a long time, the training of students' information literacy in Chinese colleges has always been the responsibility of colleges, most of whom have not paid much attention to it. When the training task is often handed over to the college libraries alone, there is a lack of communication or collaboration between departments. This has largely led to unsatisfactory educational results. To tackle this problem in the process of cultivating the core literacy of college students, the college libraries are supposed to strengthen communication, cooperation and management with different academic departments and relevant school. This may give full play to the main body of information literacy training for students in the colleges. Also, to ensure the effect, libraries are advised to pay close attention to the policy planning and guidance of education institutions at all levels in order to form a situation of multi-linkage and cooperation for the cultivation of college students' core literacy.

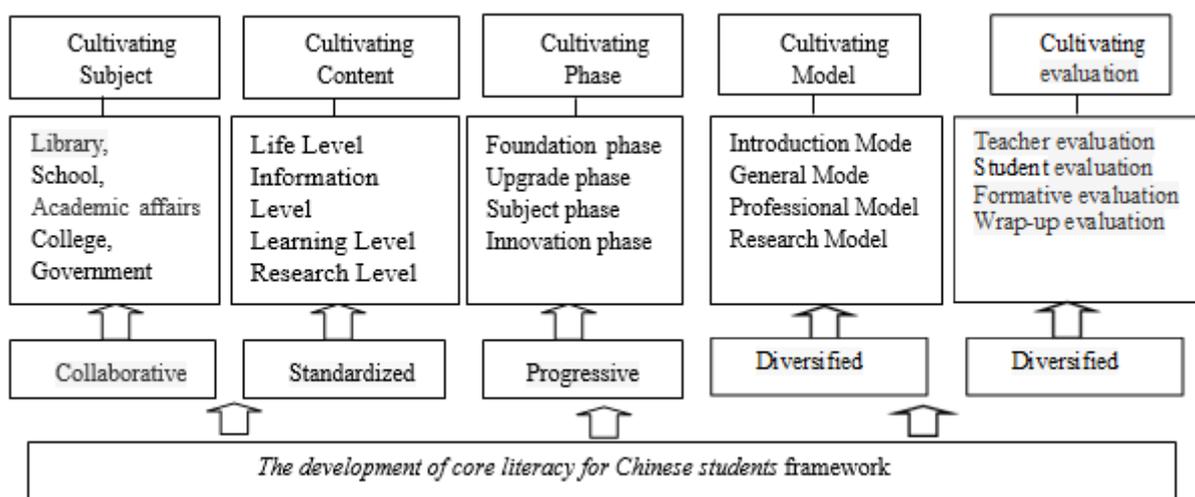


Figure1: The Core literacy Cultivating System for College Students

As the main body of core literacy cultivation, the library should interpret properly the policies and plans made by the higher education department on this issue while safeguarding its own resource services. It should take the initiative to negotiate and communicate with relevant departments such as schools, academic affairs, and colleges, formulate a student core literacy training system suitable for the teaching characteristics of the college and undertake consulting, propaganda, and education work for student core literacy cultivation.

As the director and coordinator of colleges, the educational administration department should play the role of promoting the core literacy cultivation, actively guiding the formulation and development of the system. It is also supposed to timely convey the guidelines and recommendations from higher education departments, and actively promote communication and cooperation among libraries and schools and other related disciplines.

To a certain extent, the core literacy education is for the sake of better assisting the basic teaching units in their teaching tasks. Therefore, the relevant schools should provide certain labor force and material resources and participate actively in the development of the core literacy cultivation system. And they are also required to assist the library to complete the embedded cultivation program, information retrieval competition, learning and sharing meeting, innovative design competition and other activities.

The management of colleges should combine the characteristics of their own and that of their students' learning to work out the very requirements and goals for the cultivation of their students' core literacy. Attention should also be paid to the policy support and capital investment of relevant departments when the needs of talents, technology, equipment and other resources in the cultivation of student core literacy are guaranteed.

The government should conduct special seminars and set up special websites to help strengthen the awareness of the society, the government and the colleges on the cultivation of students' core literacy so as to contribute to the establishment of a national alliance. At the same time, government educational institutions at all levels should formulate policies, standards, and guidelines for the core literacy cultivation, make it part of their development planning, encourage and support the core literacy research work in universities.

3.2 "Standardized": Goal-oriented for standardized education

By analyzing the objective and purpose of higher education, and referring to the current content of information literacy education in China, we set the core literacy of college students to the following levels.

Life Level. It educates freshmen about their outlook on life, values, safety awareness, healthy and civilized behavior, improve their personality, cultivate their ability of self-study and life management to lay a good foundation for their study and career development. The content of education is mainly set up through monographs recommendations, expert lectures, and online open classes, such as the book *College Students Value Orientation* (Hongzhong,Xie,2010), *Basic Principles of College Students' Self-management* (Gefei,Wang,2004), *College Students'Career Development* (Juan,Ruan.ect,2018) and *College Students' Ideological and Moral Cultivation* (Shuanghao,Yu,ect,2018) on the MOOC platform of Chinese universities, etc. Help students correctly understand the value and the meaning of life, have a sense of safety and the ability of self-protection, develop healthy and civilized behavior habits and lifestyle, so as to make them psychologically positive, relentless and optimistic, and have the ability to manage their emotions and resist setbacks. At the same time, It educates them to correctly recognize and evaluate themselves, to reasonably allocate and use their time and energy, and has the sustained action to achieve goals.

Information Level. To cultivate students' information literacy, It educates students to acquire, evaluate, identify and use information consciously and effectively through various forms such as entering library education, general education and special lectures based on the content of information literacy education in colleges. Students should have the ability to survive in digitalization, actively adapt to the trend of social information development such as "Internet +", and have network ethics and awareness of information security. The content of the course mainly includes basic knowledge of information retrieval, methods of information acquisition and utilization, methods of information analysis and evaluation, enlightenment of information consciousness, introduction of information retrieval tools, information laws and regulations and ethics education. In addition, students can also be guided to take part in open online courses, such as *Document Management and Information Analysis* (Zhaofeng,Luo,2018), *Document Retrieval* (Ruhua,Huang,2018), *New*

Media Literacy (Zhan,Zhang,2018) and other courses on the MOOC platform of China University.

Learning Level. It focuses on training students' how to use various information analysis tools and learning tools to enhance their learning skills and initiative, and to cultivate students' habit of reflective learning. The teaching content includes the operation teaching of various learning aids, such as writing tools (Evernot, LaTeX); demonstration tools (PPT, Zoomit); drawing tools (AutoCAD, Photoshop); digital analysis tools (Excel, SPSS); literature visualization analysis software (Citespace); and new media technology tools. At the same time, it adopts the mixed teaching mode of students' online autonomic learning combined with class problem analysis, self-assessment and mutual evaluation, so that students can have active and positive learning attitude and strong interest in learning; habitually reflect and summarize learning; have the consciousness of examining their own learning state; and choose or adjust learning strategies and methods according to different situations.

Scientific Research Level. To educate students on scientific research methods, scientific thinking, scientific spirit, academic ethics and morality, it mainly carries out activities such as embedding teaching, special lectures, analysis of professional problems, cooperative study of research teams, innovative design competitions and so on, so that students can advocate true knowledge to understand and master the fundamental scientific principles and methods; have positive awareness and rigorous attitude to knowledge. Students should have the abilities to understand things and solve problems in scientific thinking ;to think thoroughly and judge independently, to analyze problems from multiple angles and dialectally, to be fearless of difficulties, persistent in exploring and to seek effective solutions of problems actively. At the same time, It educates students to be good at discovering and raising problems, and have the interest and enthusiasm to solve problems; It educates students to formulate reasonable solutions according to specific situations and conditions, and be willing to innovate and discover, and transform ideas and solutions into practical applications.

Social Level. It develops students 'international understanding, national identity, and sense of social and collective responsibility through regular lectures on the international situation, national awareness and other topics, the broadcasting of patriotic propaganda films, and the organization of teamwork activities, so that they can understand the world's development trends with a global awareness and an open mind; defend the sovereignty, dignity and interests of the country with national consciousness and identity. In that case, the students can devote themselves to their work, have a sense of teamwork and mutual help; be able to perform their duties and be responsible for themselves and others; be able to distinguish right from wrong, have a sense of rules and the rule of law, actively fulfill their civic obligations, rational exercise of civil rights and so on.

Of course, the content of cultivating the core qualities of college students is not limited to the above contents, but also includes such aspects as humanistic feelings, aesthetic interests, and labor consciousness. In the conditions of ample cultivation time, other subjects can also be taught according to students 'learning requirements and learning interests.

3.3 "Progressive": progressive for segmented education

The learning of college students is a process of continuous deepening of the level and content, and the core literacy is related to the entire learning career of students. Therefore, the cultivation of college students 'core literacy should also be a systematic project with hierarchical, continuous improvement of teaching content and convergence. It runs through every stage of college education, and divides different training stages according to students 'periodic learning characteristics and needs, the content continues to deepen and progress gradually.

Foundation Phase. This is to cultivate students 'information retrieval bases, information awareness, and computer operating skills through library entry education, general education courses, special lectures, and face-to-face exchanges according to the characteristics of students who have fewer professional courses and sufficient spare time, and simultaneously, the students 'personality is improved, so that they have positive psychological qualities, self-confidence, self-love, perseverance and optimism; Self-restraint, can regulate and manage their emotions, have the ability

to resist setbacks, etc.

Upgrade Phase. Classroom interactive teaching or online autonomous learning is adopted to cultivate students' ability of using various retrieval tools and learning tools according to the learning characteristics of the general education courses for sophomore students, simultaneously cultivating their ability to study independently, reflect on learning, and manage themselves, thus laying a good foundation for further s.

Subject Phase. This is to cultivate students' rational analytical thinking, critical questioning spirit, and scientific research spirit through embedded teaching, special lectures, professional problem analysis and other models according to the characteristics of the professional and practical courses of students in the third and fourth grades of colleges. Simultaneously, to enhance students' ability of interaction, team responsibility and social responsibility, and to cultivate students' scientific spirit while laying the foundation of students' professional research.

Innovation Phase. Special lectures, problem exploration, research on topics, innovation design competitions, and the declaration of scientific research projects are adopted to educate students in scientific research thinking, scientific research methods, and academic ethics according to the characteristics of the postgraduate study model and their increasing demand for academic information. Simultaneously, it enhances students' ability to find problems, analyze problems, and solve problems, and improves students' scientific research ability, innovation ability, and technology application ability.

3.4 "Diversified": Multiple patterns and Diverse approaches

The cultivation of core literacy of college students is a systematic and progressive educational process for all college students. Its cultivation goal and content are bound to change with the changes of students' learning characteristics and contents. Therefore, the choice of the cultivation model and the evaluation model of the cultivation effect should also show a diversified trend. Here we roughly divide it into the following four modes:

Introduce Model. Firstly, through the library entry education, the library introduces the new students to various learning resources and information acquisition methods of the library, and teaches students information technology and information retrieval basic knowledge through special lectures. In addition, libraries should regularly send consulting librarians to go deep into student groups, stimulate and understand students' information needs, and enlighten students' information awareness; Finally, libraries or relevant colleges should invite experts or teachers with rich experience in student management to conduct regular mental health consultations with students through face-to-face or online exchanges to improve students' personality.

General Education Model. The teachers engaged in information literacy education in the library carry out general education for students on the using of various information retrieval tools and learning tools, cultivate students' basic learning skills, and use online combined classroom models for teaching, allowing students to learn online before class, so that classroom time is fully used for problem inquiry, case analysis, learning mutual evaluation and other activities to enhance students' learning initiative, self-learning ability, problem inquiry and reflective learning ability. At the same time, the college conducts special lectures on self-learning management to educate students so that they can correctly understand themselves, grasp the correct learning direction and rationally arrange learning time and energy.

Professional Model. Subject librarians actively communicate and cooperate with subject teachers to develop knowledge content which includes thinking analysis and scientific research methods into teaching modules for students to independently study online and conduct preliminary education on students' scientific research literacy. In addition, subject librarians embed professional case analysis and commentary in the course teaching of subject teachers, arrange professional research topics, write professional scientific research papers, form professional learning collaboration groups and carry out learning self-assessment and mutual evaluation activities, In order to further cultivate the students' thinking analysis ability, critical questioning spirit, the courage to explore and the sense of team and social responsibility, lay the foundation for the development of their professional

scientific research activities.

Research Model. The library cooperates with the graduate school, on the one hand, by inviting experts to carry out special lectures, the content of scientific research theory, thinking and methods that are necessary for students to carry out scientific research work; On the other hand, the library's cooperation with subject teachers, professional scientific research problems or scientific research assumptions is set up, and students are required to prove and solve them in order to cultivate their ability to reason and analyze and solve problems; In addition, subject teachers should also involve students in scientific research projects. Colleges should cultivate the abilities of students in scientific, innovative research and technology application through regular student innovation design competitions, and encourage students to participate in scientific research and guide students to declare scientific research projects at various levels.

In addition, in the process of cultivating students' core literacy, various forms of education such as online autonomous learning, classroom interactive teaching, problem exploration teaching, subject research, and learning mutual evaluation have been adopted. For this reason, in the process of evaluating the cultivation effect of students' core literacy: 1. Adopt multiple evaluation subjects, increase the evaluation subjects of students on the basis of traditional teachers' evaluation subjects, and carry out mutual evaluation and student evaluation activities for teachers' teaching so as to reflect the educational effects more comprehensively. 2. The evaluation index breaks through the three major indicators of traditional information literacy education evaluation which includes examination, attendance, and practice reports. New formative evaluation indicators such as learning initiative, learning progress, classroom interaction, learning collaboration, learning sharing, learning mutual evaluation, learning management, problem exploration, and research reports have been added to the process of cultivation. The students' performance in each teaching activity is quantitatively scored and recorded. Finally, the evaluation indicators of all parties are synthesized and summarized, so as to seek the most comprehensive, objective and scientific cultivation and evaluation results.

4. Conclusion

The core literacy cultivating system of college students is based on the framework of *The development of core literacy for Chinese students* and aims to promote the core literacy development of college students in China. This cultivating system realizes the participation of the cultivating for colleges students' core literacy in multiple roles, the process of cultivation achieves multi-stage and systematic, and the content is targeted and standardized, cultivation methods, evaluation of cultivation effects to achieve the coexistence of diversified models, on the basis of China's information literacy education system. It should be pointed out that the study of core literacy cultivation of college students is still in its initial stage in China, and the effective development of its cultivating practice needs to be guaranteed at a certain time and conditions. For this reason, the educational power of all parties in society should re-examine the essence and goal of current education, and correctly understand the importance and significance of the cultivation and development of college core literacy; Government educational institutions at all levels should actively guide and support the development of core literacy cultivation in colleges; Colleges should actively participate in the formulation of norms, mechanisms, and standards for core literacy cultivation led by the government, and implement specific work, and earnestly regard the cultivation of core literacy as an important part of current college education. Teachers should actively carry out self-cultivation, learn advanced educational methods and experience, and achieve student core literacy development on the basis of self-core literacy improvement.

Acknowledgements

This work is funded by the University Philosophy and Social Science Research Fund Project "study on the Construction of Metaliteracy Education System for University "(2017SJB1111) of Jiangsu Education Department.

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