An Exploration of Cultivation Strategies of English Core Literacy--Based on the Transformation of the Traditional Primary Classroom

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Abstract. The primary classroom is an important occasion for cultivating English core literacy. Problems such as insufficiency of form and content of teaching materials, uneven level of teachers' informatization, the lack of classroom ecology and the lack of students' comprehensive quality, make teaching unable to meet the requirements of cultivating inter-disciplinary talents in the big data era.   Efforts should be made to improve the effectiveness of English classroom teaching in primary school and to transform the classroom to adapt to the social development. According to the requirements of English core literacy, strategies will be proposed for the transformation of primary English classrooms in four aspects: building an ecological classroom, optimizing the content and form of teaching materials, establishing students' awareness of deep learning, and improving teachers' professional level, in order to provide references for classroom transformation as the request of times as well as promote the implementation of English core literacy.

Keywords:primary school English; core literacy; classroom transformation.

1. Introduction

The English Curriculum Standards for Compulsory Education (2022-year Edition) points out that English is a language widely used in economic, political, scientific and technological, and cultural activities in today's world, an important communication tool for international exchange and cooperation, and also one of the carriers for spreading the achievements of human civilization. It plays an important role in bringing China to the world, making the world understand China, and building a community of human destiny [1]. High level of English ability is a main requirement for inter-disciplinary talents in society, thus the importance of English education and teaching is conspicuous [2]. The advent and development of big data has provided opportunities and challenges in the field of education: teaching materials, teaching philosophy, teaching mode and students' development direction, all of which are affected by the synergistic development and integration between education and information technology. Education reform has taken a new direction under this influence. Core literacy is the centralized embodiment of the nurturing value of the curriculum. Students should develop necessary characters and key abilities under the guidance of correct values at the beginning of their compulsory education. The implementation and development of the English curriculum must focus on the "general grasp" of core literacy, and implement it in the primary English classroom. Therefore, it is important to focus on how to actively transform primary English classrooms to meet the development of the times. Exploration of the ways of cultivating students' English core literacy in primary classrooms does matter in the big data era.

2. Composition and Cultivation Path of Core Literacy of English Subject in the New Curriculum Standard

2.1 The connotation and composition of English core literacy

The promulgation of English Curriculum Standards for Compulsory Education (2022-year Edition) strengthened the curriculum's nurturing orientation and emphasized the overarching position of core literacy in the English curriculum. Core literacy is the concretization of education policy, and is the intermediate link among macro education philosophy, cultivation goals and

specific teaching practices. Chinese scholar Chongde Lin believes that to focus on students' development of core literacy is to focus on the question of "what kind of people should be cultivated for future education" [3]. According to Qiquan Zhong, core literacy is an optimal overview of civic literacy in this era, which highlights the fundamental purpose of school education and the reform direction of curriculum and teaching [4]. In order to meet the development of the times, education reform has moved from "knowledge-based" to "literacy-based", and the development of students' core literacy has become a global trend in education reform [5]. This trend is conducive to cultivating students' flexible and open-minded thinking as well as broad and stable interests, laying foundation for students' lifelong sustainable development and providing prerequisites and guarantees for them to adapt to social development. The new curriculum standards require the English curriculum to focus on core literacy, embody the nature of the curriculum, reflect the philosophy of the curriculum, and establish the goals of the curriculum. The core literacy of students to be cultivated in the English curriculum contains four aspects, namely language ability, cultural awareness, thinking quality, and learning ability [6].

Language ability is a fundamental element in the core literacy of English subject. It mainly refers to the ability to understand and express in social situations with the help of language, including not only the ability to use language skills such as listening, speaking, reading and writing as well as the ability to perceive, understand and apply certain basic English knowledge, but also the mastery and application of communicative strategies [7]. The improvement of English language ability has a meaningful significance in the development and enhancement of cultural awareness, thinking quality, learning ability and cross-cultural competence.

Cultural awareness reflects the value orientation of core literacy. It not only requires students to compare similarities and differences, respect differences and learn to draw on the essence of foreign cultures while learning about multiculturalism, but to enhance patriotism and build cultural confidence as well. The closely intertwined and interrelated world trends entail the proposition of developing cross-cultural awareness, which will greatly broaden students' horizons, exercise the use of global perspectives, and provide new insights into the world.

Thinking quality reflects the mental characteristics of core literacy, whose development is conducive to enhancing students' ability to analyze and solve problems, helping them to observe and understand the world from a cross-cultural perspective and making correct value judgments as well as promoting students' deep learning [8]. A research showed that learning a foreign language helps optimize thinking, enrich the structure of thinking, and promote the development of diverse thinking.

Learning ability is a key element in the development of core literacy. This requires citizens to establish the concept of lifelong learning in new era, and to develop a spirit of innovation and exercise practical skills in addition to the cultivation of benign observation, memory, imagination and thinking skills. Students are guided to establish a positive attitude toward learning, learn to educate themselves and learn independently, and consciously develop learning and behavioral habits so that every student is equipped with a strong foundation for lifelong sustainable development.

These four aspects of core literacy supplement each other. The English curriculum should take the establishment of correct cultural awareness as a prerequisite, and help students develop their learning ability on the basis of good language skills, form a combination of agility, flexibility, creativity, criticality and profound thinking quality, and ultimately achieve the fundamental task of establishing morality education.

2.2 The cultivation path of English core literacy

The core literacy of English can be cultivated by "starting from culture, basing on language knowledge, aiming at developing higher-order thinking, and emphasizing the improvement of learning ability" [9]. Culture is the soul of a country and a nationality, and ideology education for teenagers is an important step to enhance core literacy and train new generations for the nation. The

teaching materials are the significant carriers of profound cultural heritage and mainstream ideology.

In the aspect of culture, English textbooks are required to adopt a large amount of cultural knowledge from English-speaking countries while being rooted in the soil of China's excellent traditional culture, to do well in spreading China's excellent traditional culture in English, and to provide a positive material basis for students to form correct cultural awareness.

With correct cultural awareness as a guide, a scientific language environment should be created for the development of language skills, so that students can naturally acquire and utilize language knowledge. As a main place where students acquire and utilize English most frequently, the English classroom is blessed with the tasks of creating a favorable language environment to cultivate students' learning interest. The ecological English classroom provides the environment safeguard for students to exert their subjectivity, accumulate language knowledge, and improve their language skills.

In the new era, education lays more emphasis on the quality of students' thinking than ever before, not only on the ability to "think in English", but also on the ability to "develop higher-order thinking with language tools". The lower-order thinking of "memorization, comprehension, and application" will not enable young people to grow into the innovative talents needed in the big data era, so the higher-order thinking of "analysis, evaluation, and creation" should be the goal of English teaching and it's necessary to make students aware of the importance of deep learning.

Students improve the quality of their thinking, learn to identify, analyze and solve problems, which will make correct value judgments. The development of the awareness, abilities and qualities requires students to foster the ability to learn independently and to develop lifelong learning habits. In the big data era, the flexible use of information technology is indispensable for actively adjusting English learning strategies and expanding English learning channels. Students' knowledge of information technology mainly comes from explanations and demonstrations in the classroom, thus the improvement of teachers' information technology skills is closely correlated with students'.

3. Based on the Requirements of English Core Literacy: the Limitations of the Traditional Primary English Classroo

Yuexia Liu pointed out that the reform of classroom teaching is the top priority. Only when breakthroughs take place in classroom and teachers apply the concept of reform into the classroom can it eventually benefit students and put the ultimate point of talent cultivation on them [10]. The primary classroom is the starting point for students to receive compulsory education, and it is also an important position for the implementation of the English curriculum and the development of students' English core literacy. The implementation of core literacy entails classroom development to keep pace with the advancement of the times. Combining with the requirements of English core literacy and the updating iteration of the big data era, the following problems exist in the traditional primary English classroom, for instance: the single form and content of teaching materials, the lack of classroom ecology, the lack of students' awareness of deep learning, and the uneven level of teachers' information technology.

3.1 Cultural awareness to be deepened: single form and content of teaching materials

The first shortcoming of the traditional primary English classroom is the single form and content of the teaching materials, which can no longer meet the needs of teaching and learning by relying solely on traditional paper-based materials. Digital textbooks are becoming increasingly important in teaching and learning in preview and review. As to meet the developmental needs of contemporary students and effectively promote the teaching activities, in the big data era, it is urgent to update the concept and content of traditional teaching materials, and to integrate them scientificallyon the basis of the study, analysis, design and utilization of digital teaching materials.

The unit content is rationally constructed based on the big idea of the discipline, and the integration of interdisciplinary content is promoted to achieve holistic teaching.

3.2 Language ability to be hindered: lack of classroom ecology

Another deficiency of the traditional elementary English classroom is the lack of classroom ecology. Classroom ecology is a special kind of ecology. The main subjects of classroom ecology are teachers and students, but also subject to objective factors such as software and hardware environment, and the elements are organically linked and interact with each other [11]. The status of students as the main body of the classroom is not prominent.The form and content of interaction between teachers and students are not abundant enough, and the proportion of information-based teaching materials is unreasonable. All of these hinder the ecological development of the classroom and then affect students' participation in the classroom and fail to ensure that classroom teaching meets students' development needs. In particular, primary school English teachers should pay more attention to the construction of an ecological classroom, utilizing reasonable teaching resources to meet students' needs while regulating the classroom atmosphere, ensuring teaching quality, and accomplishing teaching goals in correspondence of language skills enhancement.

3.3 Thinking quality difficult to develop: students' lack of awareness of deep learning

In addition, traditional primary English classrooms suffer from a lack of students' deep learning awareness. Compared with the training of thinking quality, traditional classrooms pay more attention to developing students' language ability. The fill-in-the-blank teaching makes students' mastery of knowledge superfacial, staying at the stage of memorization, comprehension and application, without the quality of thinking of analysis, evaluation and creativity.

Critical thinking skills are considered as one of the most essential learning skills for 21st century learners as they live in ever-changing societies with increasing access to news and information from every corner of the world. It is necessary to differentiate, analyse, and evaluate the reliability of the received data to avoid others' manipulation [12]. Primary English classrooms should help students develop deep learning awareness, guide them to grasp the inner connections between knowledge, consciously employ critical thinking to evaluate problems, make judgments dialectically, and achieve in-depth development of thinking quality.

3.4 Learning ability easy to be limited: teachers' uneven level of information technology

Another shortcoming of traditional primary English classrooms is the uneven level of teachers' informatization. Not all teachers are proficient in operating information technology equipment. Some teachers are not used to teaching with information technology training aids and materials. Their application of information technology equipment and resources is superficial, rigid, not flexible enough.

According to a research conducted in seven primary schools with 60 primary EFL teachers in a middle-sized urban school district in China, the findings indicated that less than 50% EFL teachers participated in PD training related to TPACK skills. Most of the training that teachers participated in was training mainly related to soft/hard-ware training (58%) [13].

Teachers' teaching philosophy and pedagogy will directly affect the development of students' learning abilities and the effectiveness of classroom instruction. Teachers' professionalism is reflected in knowledge, skills and ethics, which requires them in the big data era to master the basic knowledge of subjects and develop educational and teaching skills, while also focusing on improving their information literacy to provide reference and guidance for students to expand their English learning channels and master scientific learning methods.

4. Classroom Transformation Strategies for Developing English Core Literacy in Primary Schools in the Context of Big Data

In order to solve the shortcomings of the traditional primary English classroom in the big data era and to comprehensively develop primary school students' English core literacy, four classroom elements can be taken into consideration: environment, teaching materials, students, and teachers. Classroom transformation can start with classroom ecology, content form of teaching materials, students' deep learning awareness, and teachers' professionalism.

4.1 Build an ecological classroom and improve the language environment

The classroom is the standing point of curriculum implementation, and the construction of an ecological classroom provides the environmental basis for developing students' language skills. Considering the classroom environment, modern teaching equipment and supporting facilities as well as software should be introduced in the classroom in addition to the traditional teaching equipment. Major changes didn't occur in teaching and learning processes during the last century. However, eLearning platforms may transform these processes, turning the classroom from a teacher-centered and standardized space into a student-centered, customizable and highly scalable environment [14]. The layout of the classroom and the placement of tables appropriate for children's language learning and group a variety of teaching activities. Class sizes should be enlarged to meet the developmental needs of the children, thus creating a relaxed classroom environment with a wide range of activities.

From the perspective of classroom leadership, teachers, as the organizers of teaching activities, are both the constructors and leaders of the classroom ecosystem. Therefore, to "intervene" in the classroom with information technology and change the behavior pattern of teaching and learning in the traditional classroom, teachers must use educational wisdom as the internal motivation and engine [15]. Teachers should establish an equal and respectful teacher-student relationship with students, pay attention to students' English learning needs and individual differences, combine students' individual characteristics and learning levels to teach according to their abilities, and conduct purposeful and directed teaching. Context means a lot to the logic of the classroom and the cognition of students. Teachers should make full use of the real teacher-student communication situation and design the contextual chain around the unit content as a whole, so that the teaching links are interlinked and integrated [16].

From the perspective of the classroom subject, the main position of students should be highlighted. It is indispensable to give full play to their initiative in teaching and make the classroom come back to ecology. Students shall acquire language knowledge in a natural and active language environment, express their opinions freely, communicate boldly with their peers, actively participate in language activities on related topics in specific contexts constructed by the teacher, and exercise their language comprehension and expression skills, ultimately achieve the effect of releasing their potential and improving their language skills.

4.2 Optimize the content and form of teaching materials and promote cultural exchange of disciplines

We should focus on systematically grasping the concept of teaching materials, implementing core literacy, correctly handling the main contradictions and conflicts in the design of teaching materials, and highlighting teaching priorities. It's significant to seek mutual support and convergence between primary and secondary teaching materials, subject and interdisciplinary teaching materials, and paper and digital teaching materials [17]. The design of quality teaching materials must be basic and systematic, and the content of teaching materials should be in line with the reality of students' lives and the laws of their physical and mental development, making them informative, structured and instructive.

Textbooks are the main teaching materials in teaching and learning. Solely relying on textbooks cannot provide comprehensive guidance for teaching and learning. Support of supplementary teaching materials (e.g. teaching reference books, extra-curricular reading books, resource books, etc.) should be highlighted. The selection of content and depth of auxiliary teaching materials should be professionally and systematically researched to provide reference for teachers' teaching. The design of teaching materials should make reasonable use of digital teaching resources to enrich teaching texts, audio and video materials, etc. Qiquan Zhong points out that advocating the "wholesale digitization" of teaching materials cannot be considered a correct policy idea [18].

The relationship between paper-based and digital teaching materials should be coordinated, so that both can be used in a synergistic and complementary manner, while taking advantage of the "at-a-glance" and "overlook" nature of paper-based teaching materials as well as the interactive, visual and diverse nature of digital teaching materials. The relationship between paper and digital materials should be coordinated so that they are used synergistically and complement each other. The materials will meet the needs of students to develop their cultural awareness and meet the trend of the times.

Since subject-specific textbooks and materials are not sufficient for the construction of a complete knowledge system, it is necessary to reconstruct subjects or new subject clusters based on core literacy. We need to go beyond the boundaries of disciplines and use unit learning activities (co-teaching) or interdisciplinary teaching and learningto promote multiple perspectives and levels of understanding [19]. The design of teaching materials should not be satisfied with the transfer of subject knowledge, but should also focus on the cultivation of cultural awareness, which requires the integration of interdisciplinary content in subject materials and the flexible use of subject materials and interdisciplinary materials. The ingenious integration of excellent Chinese traditional culture in English teaching materials promotes the synergistic development of cross-cultural awareness and national sentiment.

4.3 Establish students' deep learning awareness and strengthen the cultivation of thinking quality

The primary school English classroom should guide students to develop deep learning, to grasp the essence and connotation of the English language while constantly updating their original cognitive structures and optimizing their ways of thinking. In the classroom, experiential teaching is the main focus, and students are attracted to join the learning process actively through practice and participation in the form of cooperative learning, and they are able to persist in exchanging reflections with their peers and teachers outside the classroom in the form of linguistic narratives [20]. Through deep learning, students maintain their desire for knowledge and interest in exploration, build connections between ideas, and flexibly achieve knowledge transfer and application in real-world contexts.

Adequate reading is the raw material for intellection. In actual teaching, we should take advantages of the resources in big data era , integrate various types of knowledge to reconstruct the text, and provide students with diverse reading materials. According to the objectives and tasks of the unit, the use of textual resources and related training are inferred in the reverse direction, and they are boldly adjusted and edited closely around the "intellection objectives" [21]. The unit content is integrated, and the unit teaching system is constructed with the unit teaching objectives as a guide, so as to avoid the fragmentation of teaching content that hinders the construction of students' knowledge network. The internal logic of the content is highlighted, and students are skillfully guided to explore the deeper meaning of the text, to form a knowledge system beyond the scope of language learning in deeper learning, so that they can gradually acquire the ability to refer back to the past and to learn by analogy, promoting a leap in the quality of thinking.

4.4 Improve teachers' professionalism and guide students to expand their abilities

Teachers in the new era should insist on self-reflection and lifelong learning, improve their business level, enrich their practical experience, constantly update their teaching concepts and broaden their horizons through business research and exploration and innovation. Primary English teachers should also understand and master information technology, break through the traditional teaching model, use information technology naturally and flexibly in English teaching to provide students a richer and more diverse classroom experience, making the teaching model conform to students' interests as well as cognitive characteristics at the appropriate age.

The popularity of big data provides convenience for education. Primary English teachers should make full use of information technology resource platforms to tap educational data, select and analyze effective information, and use it flexibly in their daily educational teaching work. By recording and analyzing students' learning effects through information technology resources, teaching will be adjusted timely in line with analysis results, and the scientificity, reliability and relevance of educational decision-making will be improved. It makes education truly suitable for the development of each child. Education provides effective guarantee for each student's foreign language learning and provides technical guidance and support for the development of students' learning ability.

Schools should also provide more opportunities and possibilities for primary English teachers to improve their teaching information literacy. In order to successfully teach a foreign language at an early level, it is essential to train a sufficient number of teachers and to offer full-time training programmes and study programmes to improve teacher education in the field of early foreign language teaching [22]. It is the duty of schools to organize pre-service and in-service training according to the requirements of teachers' professional development, deepen their awareness of applying data for analysis and decision making, and guide and supervise them to apply information technology theory to practice, so as to improve education and teaching. It is important that professional development training be developed that helps second language teachers integrate technology into their teaching, rather than simply adding technology to the existing teaching and content domain. Teachers need regular practice making connections between technological knowledge, pedagogical knowledge, and content knowledge [23].

In their training, primary English teachers should insist on reflection on traditional teaching in conjunction with their practical experience, optimizing their teaching philosophy and methods, and becoming good facilitators of teaching innovation. English teachers ought to direct students to form proper learning attitudes and concepts in primary English classrooms. It is high time that students should use information technology resources to learn independently and develop the ability to collect, select, and analyze various learning resources, so that they can actively adapt to the development trend of the big data era in classroom teaching and after-school tutoring.

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