A Review of Problem-Based Learning on Cognition and Creativity Skills Among Art Student in China

Hu Qi\textsuperscript{a*}, Janaka Low Chee Kong\textsuperscript{b}

\textsuperscript{a, b}Malaysia University of Science and Technology, Petaling Jaya, Malaysia
\textsuperscript{a}Email: hu.qi@phd.must.edu.my, \textsuperscript{b}Email: janaka.low@must.edu.my

Abstract

This research article conducts a systematic literature review of problem-based learning (PBL) in art education and its impact on the cognitive and creativity skills of students in China and globally. The concept of creativity education, which refers to the framework, policies, environments, and pedagogical practices used to foster creative thinking, has gained significant attention in recent years. Studies have shown that PBL can lead to increased motivation and engagement among students, as well as improved critical thinking and problem-solving skills. However, there are challenges that need to be addressed to effectively implement PBL in art education, such as a lack of teacher training and a need for more research to understand how PBL can be effectively integrated into existing curricula. The article provides insight on the current state of PBL in art education and its potential impact on students' cognitive and creativity skills, offering guidance for future research in this field.

Keywords: Challenges and Problem; Problem-based Learning; Creative Thinking; Strategy.

1. Introduction

The word “creativity education” refers to the framework, policies, environments, and pedagogical practices used in educational institutions with the goal of fostering creative thinking [1]. In the context of formal education, the term "creativity education" refers to a mode of instruction in which instructors encourage and foster their students’ creative potential using curriculum materials and structured instructional activities [2, 3]. Early creativity education was similar to elite education because it was similar to elite education.
After some time had passed and research had become more in-depth, researchers eventually concluded that, in truth, everyone is creative and that creativity can be fostered; consequently, they started putting a large amount of emphasis on creativity education. The cultivation of creativity has a huge impact on both the economy and society, and research on this topic has garnered a large amount of attention. However, some analysis of the relevant literature demonstrates a lack of inventive problem solving, creative thinking, and cognitive ability [4, 5]. Previous research discovered and investigated whether pupils in a range of educational contexts exhibited cognition and creativity, as well as whether such abilities were present or absent [6]. The researcher came across only two studies that concentrated on instructing students in inventive problem-solving strategies while ignoring the students' creative abilities and cognitive abilities. Their research, consequently, offer some guidance in the field of creative problem solving and its application to the purpose of enhancing students' cognitive abilities and their creative potential. In view of the importance of the problem-based learning in art education. This paper discusses about the systematic literature review of the problem-based learning in China and global context.

2. Research Methodology

In this paper, we use the PRISMA guidelines to conduct the systematic literature review. The process includes

a) Inclusion requirements and conditions

b) The classification of the literature

c) Screening

2.1 Inclusion requirements and conditions

Only research on problem-based learning in art education, which aims to improve both cognitive and artistic abilities, was taken into consideration. This study did not include any literature reviews pertaining to other fields of science, technology, engineering, or mathematics (STEM). We incorporated research from the field of art into our analysis. Since our investigation is focused on China, we restricted ourselves to including papers written in either English or Mandarin.

2.2 The classification of the literature

When we first started looking for relevant research, we used the terms "problem-based learning," "review methodology," "literature review," "cognitive and creative skills," and "art education" as our search terms. Each manuscript was evaluated for its potential usefulness based on its title. If, based on the title, the material seemed to explain the technique of the literature review process, we obtained the entire reference, which included the author's name, the year, the title, and the abstract, for the purpose of doing further analysis.

We searched through Google Scholar, Web of Science, and China National Knowledge Infrastructure (CNKI), which are three databases that are utilized by scholars working in a wide variety of fields on a regular basis. We restrict the publication date to 1998-2022 (articles published in the previous twenty years) so that our review can
be based on the most recent literature on information retrieval and synthesis in the digital age. This is necessary because technological advancement changes the methods for archiving and retrieving information. The first thing we did was conduct a search on Google Scholar using the broad terms "art education" and "problem-based learning." After going through the first twenty pages of search results, we came across thirty-two articles that may be considered relevant. After that, we improved our keyword selection. The terms "review methodology" and "literature review" produced a total of 543 results when searched for on the Web of Science database. After doing a preliminary examination of the titles, a total of 54 different studies were located. After performing a preliminary screening of the titles, we found 21 records that were connected to the technique of the literature study. Using all three sources together, we were able to locate 46 possible studies, including 10 sets of duplicates that we subsequently eliminated.

2.3 Screening

In order to evaluate the relevance of each of the 46 studies to the subject of the research — the literature review approach — we examined the abstracts of the studies. The full-text articles from each of the 31 studies that were considered pertinent were retrieved so that their quality could be evaluated.

3. Literature Review

3.1. Creativity

The capacity for creativity is an important ability that contributes to the growth and advancement of human society. The capacity of individuals to generate original ideas or products that have a high aesthetic value while also solving artistic problems is referred to as artistic creativity. This type of creativity is one of the most important forms of creativity.

According to the findings of [7], there is undeniable evidence that training in creativity is advantageous. Their findings indicate that a solid foundation in creative behavior education may be beneficial to creativity training, which focuses on the mental processes that underpin most creative endeavors. This suggests that creativity training could be improved by such a foundation. Training was reported to have the greatest impact on problem-solving abilities, conceptual fusion, and creative thinking by those who were involved in the process of developing new ideas. Due to the often-condensed nature of creativity training, it is also highly improbable that this kind of instruction will result in the development of creative skills. On the other hand, receiving training in creativity is likely to equip individuals with a set of skills that can be utilized when working with information and knowledge that already exists. This idea is given more weight by the fact that a variety of training approaches have been linked to improvements in critical thinking, convergent thinking, constraint identification, and analogy usage. All of these things contributed to people learning how to use information methodically and had a good impact. In terms of the application of information, there was also a negative impact on the use of expressive activities and visuals, which required less explicit training.

The role of cognitive skills such as executive function and semantic processing in the production of visual art still needs to be deepened and broadened, and research into the mechanisms by which these skills operate in the
brain is still in its early stages. According to Dewey [7], as cited in [8], the purpose of education is to teach students how to think critically about issues that are relevant to the real world. When it comes to their education, students should be given a variety of options from which to choose to cultivate their own understanding of the topics that they are currently learning. To enable people in the United States to attain their full potential in the face of upcoming problems, imaginative thinking will be more necessary than it has ever been. We are in need of problem solvers who are knowledgeable, enthusiastic, and able to deal with the increasingly complex situation in which we currently find ourselves [10].

According to [11], the concept of creativity is grossly undervalued throughout the entirety of the educational system, from primary and secondary schools to colleges, universities, and other postsecondary institutions. The primary goal of education should be to impart knowledge and skills to students' minds. There are others who believe that education can only influence a person's ingenuity to a limited extent. Research indicates that everybody, regardless of their current level of creative ability, is capable of learning and improving their creative abilities.

According to [12], in order for creativity training to have the greatest impact, it must be robust enough to permit generalization across various dimensions of creativity, rather than focusing simply on a select handful of these aspects. In 1972, Torrance conducted an analysis consisting of 142 investigations, and he discovered that 72 percent of the experiments were successful. His research found that some methods of interpreting the scores were more fruitful than others and listed them in order of increasing use [13].

According to a recent meta-analysis that conducted by [14] on 70 previously conducted studies, well-designed creativity training programs often lead to increased performance. According to the findings of this research, educational programs that are more successful place an emphasis on the development of cognitive abilities as well as the practice of applications that are relevant to the actual world. No of the students' ages, academic or professional standings, or levels of giftedness, this instruction was found to be highly effective. This meta-analysis contributes new evidence to the growing body of research that bolsters the hypothesis that individuals may improve their creative capacity [14]. Reference [15] examined the effectiveness of a program to boost creativity by reading previous research and compiling a list of relevant articles. Researchers found that Creative Performing Skills (CPS) has a bigger influence on people's creative talents than any other type of training (Barbot, 2019).

According to [16], one of the notions that is the most cloudy and difficult to understand in education and psychology is creativity. However, despite the fact that being creative is a learned attribute, it is still something that can be improved upon by anyone. We will need to use our creativity if we are going to find solutions to the challenges that will arise in the future, as predicted by Parnes and Harding more than four decades ago. This perspective has been given even more credence by the developments of the past four decades, particularly in the areas of population growth, depletion of natural resources, urbanization, increased mobility, and immigration. As a consequence of this, the remainder of this investigation will be devoted to establishing the method that is most effective for developing an effective program to train high school students' creativity in addition to the curriculum that is already being taught [17].
3.2. Research Status of Creativity Education in China

People have been increasingly aware of the value of creative training in recent years, as the social economy has grown, and research on creativity education has been intensively pursued. To promote the development of creative education, the China Invention Association established the "Creativity Development Committee," the "Creative Education Branch in Colleges and Universities," and the "Creative Education Branch in Primary and Secondary Schools." Quality education has been carried out in all levels and types of schools in China, laying the foundation for creativity education. The Ministry of Education’s Department of Science and Technology, the Central Committee of the Communist Youth League’s School Department, and the Institute of Science Popularization of China (Association for Science and Technology) launched the national social survey and countermeasure research on the cultivation of youth creativity three times in a row in 1998, 2000, and 2002. Discuss and assess the issues and make applicable countermeasures and ideas. As research advances, different scholars' research ideas, research methodologies, and study foci on creativity diverge, and their knowledge of creativity becomes even more inconsistent. Professor Chen Zhaoyi feels that the key to improving creativity education on campus is to integrate creative thinking instruction into the teaching and counselling processes [18]. "Five abilities and four hearts" is the connotation of creative thinking instruction. The Four Hearts (emotional qualities) are imagination, challenge, curiosity, and risk-taking, whereas the Five abilities are sensitivity, fluency, adaptability, originality, and diligence. Professor Ma Kangmei advocated that we prioritize creativity education for young people in light of the current state of affairs in China [18]. Capacity development is critical. To establish circumstances for students' invention and practical activities, it is vital to connect society and school resources [19]. The implementing creativity education will have a broad and all-encompassing impact on pupils, as well as a favorable impact on their overall psychological quality. As a result, the measurement index of creativity education should encompass students’ whole psychological qualities [20].

References [20] claimed that "making things" and "self-cultivation," "creative awareness" and "creative practices," "creative philosophy" and "creative psychology" are all related by comparing the origins, goals, and methods of creative education in the East and the West. It’s crucial to the new "East-West creative education communication" concept [21]. The research findings on elements such as knowledge, personality, organization, and creativity culture reveal that cultivating creativity necessitates a number of conditions, yet these conditions are more necessary than sufficient.

Researchers have recently focused on how creative solutions emerge from the combination of required variables. As a result, while investigating the interaction of multiple elements, researchers attempt to develop a relationship model that may reveal the interaction of numerous factors. Psychometric approaches will undoubtedly be applied during the modelling process. During the research process, the researchers presented several novel assessment methods based on their reflection on the divergent thinking test, such as the rating questionnaire for creative items, empathy evaluation technology, and so on. These new measurement tools collect data for creativity study. Based on the exploration results of creativity education in the early twentieth century, China’s creativity education should focus on establishing a creative education system that not only has the characteristics of oriental creativity education but also fully absorbs and learns from Western creativity education theories and methods, in order to bridge the gap between Eastern and Western culture, dismantle barriers between disciplines, and promote creativity.
3.3. Problem-based learning

Problem-based learning first was introduced in the 1960s. Since then, this one-of-a-kind teaching method has been widely adopted and favored by primary and secondary schools, colleges and universities, and professional colleges worldwide [22-26]. PBL originated in medical education and training, and it is now a pedagogy in which students work through facilitative exploration, illustration, and solution processes to solve loosely structured (lack of a clear purpose, solution path, or definite solution) but meaningful problems [22, 26]. Despite the fact that there are numerous interpretations and modes of operation for PBL, there is widespread agreement on the six basic characteristics of PBL proposed by [27]. First and foremost, it is a student-centered teaching method. Second, students collaborate in small groups. Third, teachers play a supporting or guiding role in the learning process as facilitators. Fourth, there is no prior preparation or research when students encounter problems. Fifth, the problem's function is to motivate students to acquire the knowledge and skills required to solve it. Finally, PBL is a self-directed learning process in which students acquire new information or knowledge. On a theoretical level, PBL’s main properties make it applicable to the teaching of a wide range of skills and knowledge. Many educators and researchers agree that PBL can be effective in a variety of subject areas as a cross-disciplinary learning method. PBL is used in a variety of fields, including art and design [28] and business management [29]; architecture [30] and [31] economics; engineering [32] and law [33]. The interaction and interactive influence of metacognitive function, intelligence, and temperament factors in the problem-based learning environment will be investigated in this article. This study examines the findings of recent research reports in order to gain insight into the interactions and interactions among the aforementioned factors, as well as their impact on the effectiveness of PBL. It is hoped that these talks will cause teachers and researchers to reconsider their understanding of PBL and how it is used in schools.

Problem-based learning is a good learning approach that teachers may apply to assist students in identifying solutions to atypical issues. They can do this by guiding students through the process of formulating hypotheses and conducting experiments [34]. In the realm of education, a constructivist learning model is referred to as the PBL approach. According to the constructivist view of learning, students generate their very own forms of knowledge [35]. Students have the opportunity to work together throughout the PBL process to find solutions to difficult situations [36]. As a direct consequence of this, constructivist theories are commonly linked to student-centered education. Students are presented with difficult challenges while participating in PBL, which integrates student-centered problem-solving learning [37 & 38].

3.4. Existing Challenges and Issue in Visual Arts Education in China

In recent years, China’s art education has advanced significantly, playing an important role in the promotion and popularisation of students’ aesthetic ability and humanistic quality, as well as their overall development. However, there are still some pressing issues to address in school art education, particularly in rural and remote areas, which are primarily manifested in the following areas:

a. The Ideological Issue
The value and significance of art education are misunderstood by educational administrative departments, schools, and teachers. They believe that art education is primarily intended to help students advance in their careers, so they place a premium on student skill development as well as the results and achievements of art competitions. Art education is unnecessary for ordinary students, and art classes are reduced to “subclasses.” This lack of understanding frequently leads to ignoring the cultivation of students' core qualities in art education, such as ideological and moral qualities, teamwork spirit, social communication skills, and human care, and underestimating the cultivation of students' emotional qualities, imagination, creativity, and so on. It disregards the development of students' lifelong hobbies and does not see art education as a viable option for improving people's long-term happiness [39]. Thought determines action and serves as its precursor and driving force. To promote supply-side reform in art education, we must first correctly understand the value and significance of art education from an ideological standpoint.

Second, the evolution of art education has been uneven. Nationally, there are still significant differences in the mechanisms of art education, teacher structure, capital investment, and educational thinking between the eastern and western regions, cities, and rural areas. The number of teachers, teaching funds, and facility conditions all have an impact on some western regions, particularly rural areas. There are issues such as a lack of art teachers, an insufficient curriculum, and a failure to play the primary role of schools. Furthermore, there is an imbalance in the emphasis on art education between key schools and ordinary schools, as well as at different learning stages, and the disconnect between school art education and community art education also limits art education development.

c. Educational content issues

In terms of content, art education emphasises artistic skills over the development of humanistic qualities. Art education is the main content of improving students' humanistic qualities and implementing quality education, and it is an important way to cultivate students’ innovative consciousness and pass down the nation's excellent traditional culture. However, under the influence of utilitarianism, art education is increasingly equated with the acquisition of art skills and is even regarded as a means and shortcut to further education, undervaluing the cultivation of humanistic qualities and the inheritance of excellent traditional culture, and failing to recognise students' innovative consciousness and innovation. The cultivation of ability does not prioritise the ideological and moral essence of traditional culture or the spirit of Chinese aesthetics.

It is undeniable that students must learn corresponding skills such as music, dance, drama, opera, film and television, art, and so on. However, if it is limited to this, art education will descend into a state of cultural apathy and self-doubt, lose its cultural foundation, and even cut off its own spiritual and cultural lifeline.

The more important function of art education is to inherit and transmit the excellent traditional Chinese culture, to adhere to the position of Chinese culture, to inherit the genes of Chinese culture, and to demonstrate the Chinese aesthetic style. As a result, art education should be grounded in national cultural traditions. The history of art development has repeatedly demonstrated that all artists who have achieved remarkable achievements in their creations have been infiltrated by and nourished to varying degrees by national cultural traditions. A large
number of famous artists have profound cultural heritage and cultural accomplishments in addition to superb skills. At the moment, our country's art education has a tendency to be impatient and eager for quick success, which has caused some issues. In the teaching of traditional Chinese painting, for example, those who are good at skills are not good at calligraphy, and those who are good at calligraphy are not familiar with poetry. In general, the problems in Chinese painting education are largely due to a lack of humanistic-quality education [40].

d. Concerns about teaching and evaluation

The educational process should be dynamic, open, and ever-changing in terms of time and space [40]. However, the teacher-centered traditional educational philosophy has resulted in the use of "cramming ducks" and "full house irrigation" in teaching rather than heuristic and inquiry-based teaching methods, so that the purpose of teaching is only the transfer of art knowledge and art skills. It ignores the development of students' aesthetic personalities, problem awareness, and creative thinking and is unable to teach students based on their aptitude. It is limited in terms of teaching space in classrooms, does not understand the essence and characteristics of art subjects, does not make good use of rich art education resources with local or community characteristics, and is unable to adapt measures to local conditions. In fact, our country has abundant social resources for art education, which can serve as a powerful supplement to school-based art education. Every city has a variety of museums, art galleries, concert halls, theatres, galleries, and mass art galleries, among other things. Some rural areas, particularly those of ethnic minorities, lack modern venues and facilities, but their rich intangible cultural heritage inheritors—folk artists, capable people, master craftsmen, and so on—are all potential resources for art education. How to make good use of these social resources, promote resource sharing inside and outside the school, and improve the overall level of school art education are all issues that should be addressed in supply-side reform. Also, the evaluation of art education can't be different from person to person because it only looks at the results and not the training process.

The lag in teaching concepts and content, the single teaching method and evaluation mechanism, and the closedness of the teaching space all suffocate the vitality of art education, which contradicts the goal of cultivating innovative talents. As a result, supply-side reform must be implemented to meet the needs of innovative talent training.

3.5 Strategy to Promoting Art Education Reform

The first step is to reinvent the value and significance of art education, ensure the balanced development of art education, and actively participate in the dominant role of schools. Art education originated from the desire to pass on artistic abilities. The following aspects reflect the value and significance of art education. The first is to cultivate core qualities in students such as independence and cultural accomplishment [41]. The human mind is influenced subtly by art. Art education can be enlightening and beneficial. The second point is that art education can contribute unique subject qualities like perceptual quality, imagination, and creativity, and these qualities and abilities have a transfer effect and can have a significant impact on people's overall development. The third benefit of art education is that it can help people develop lifelong interests. Human beings’ ultimate goal is to
seek happiness and joy, and art can enrich leisure, enrich interests, enhance spirit, and improve quality of life, and art education can improve people's sense of happiness. Only when the government, society, schools, art educators, and others have a clear understanding of the importance and value of art education will they prioritise it and invest more production factors and energy. The central goal of education supply-side reform is to increase the supply of high-quality educational resources, optimise resource allocation, and provide more and better options to educated people [42]. The government and schools should take concrete steps to promote the balanced development of art education, allocate resources to underserved areas and schools, accelerate the improvement of art education levels in underserved areas, maximise resource benefits, and essentially eliminate differences between urban and rural areas and schools. To provide students with well-balanced and unique art education resources. Schools and local governments in rural and underdeveloped areas should also exercise their subjective initiative and dominant position, rationally use the region's unique art education resources, and convert the benefits of regional art resources into development benefits.

The second goal is to ensure an adequate supply of art education that focuses on improving students' aesthetic and literacy skills. Students' aesthetic and literacy levels are important criterion for determining the efficacy of structural reforms on the supply side of art education. The central and essential work of education is talent development. Due to the lack of aesthetics and literacy among art education students, schools should focus on the cultivation of aesthetics and literacy in the setting and construction of aesthetic education courses, use art courses as the main body of the curriculum, and rely on local art education resources to enhance the curriculum's comprehensiveness. Strengthen students' cultural subject awareness and innovation awareness; focus on cultivating students' teamwork, moral ethics, social communication, imagination, and other qualities; and pay special attention to preserving and promoting excellent traditional culture. School art education should draw rich nutrition from the vast and profound Chinese traditional culture, and some classical cultural knowledge should be interspersed in art education courses. In the teaching of traditional Chinese painting, for example, it is necessary not only to teach students the materials of traditional Chinese painting, how to use brush and ink, how to conceive, shape, draw lines, colour, and other techniques, but also to grasp the unique aesthetic feeling of form in "poetry, calligraphy, painting, and seal" and to introduce meaning and aesthetic theories such as environment, shape, and spirit, sensibility, and rationality. Literature and art of Chinese aesthetics, which is an important embodiment of Chinese excellent traditional culture's aesthetics and contains the unique aesthetic experience, theoretical creation, and practical summary of the Chinese nation in literature and art [43]. As a result, the spirit of Chinese aesthetics should be promoted in the art education process. Learning opera, for example, necessitates not only the performance procedures and character modelling of traditional opera, but also an understanding of its classical aesthetic spirit. The art of opera not only carries the genes of China's excellent culture, but it also contains the core values, ways of thinking, and cultural awareness of the nation's ongoing improvement.

The third step is to create a collaborative education training model that uses institutional mechanism innovation as its foundation. Sort out the responsibilities between educational administrative departments and schools, schools and teachers, and the relationship between schools and society and market elements through reform and innovation, fully activate various elements and subjects, and strive to establish a linkage mechanism for collaborative education. Develop and use national and folk-art education resources fully, broaden the
connotation and extension of art education, and carry on the spirit of national culture. It is necessary to fully utilize these resources, inspire students' enthusiasm for traditional culture, popularize, disseminate, promote, and inherit intangible cultural heritage, and, at the same time, create distinctive art education and fully utilize the dominant position of schools and teachers in art education through the development and utilization of local art resources. Actively promote the linkage mechanism between schools and art institutions such as museums, art galleries, concert halls, galleries, and intangible cultural heritage institutions to: timely understand students' art education needs; establish and improve art education information communication mechanisms; realize resource sharing; and expand art. An effective educational method would improve and enhance art education's kinetic energy while also cultivating and enhancing the new driving force for art education's development.

The fourth goal is to create an art education evaluation system that adheres to the law of art discipline development and promotes an evaluation mechanism that integrates art and literacy. At the moment, the three-dimensional teaching objectives adopted by our country's curriculum standards for various subjects serve as the foundation for selecting and processing teaching content, selecting and employing teaching methods, and serving as the primary reference for teaching evaluation. Among them, the goal of knowledge and skills is to teach students fundamental art knowledge and skills; the goal of process and methods is to teach teachers how to design the teaching process and use the best methods to find the best teaching methods that can stimulate students' interest, so that students can experience happiness. Learning and enjoying the learning process stimulate students' thirst for knowledge and curiosity; emotions, attitudes, and values imply that we must consciously strengthen specific orientations and express our emotions through art while imparting knowledge and skills to students. Patriotism and local feelings are fostered by education. Art education can achieve the educational goal of comprehensively improving people's core qualities, subject qualities, and lifelong hobbies through the three-dimensional teaching goal, as well as promote students' healthy growth and all-round development. In the actual evaluation process, it is necessary to correct the prevalent art interest and artistic specialty cultivation trend of "greedy for perfection" and "constantly overweight," and to insist on quality evaluation and subject quality evaluation, result evaluation and process evaluation, static evaluation and dynamic evaluation, and quantitative evaluation. The combination of evaluation and qualitative evaluation guides and limits the evaluation mechanism.

3.6 Conclusion

Art education has the value and significance of improving personal core literacy and subject literacy, enriching people's spiritual world, cultivating lifelong hobbies, and achieving career dreams. However, the current problems in art education seriously restrict the development of art education and are not conducive to the overall prosperity and great revival of Chinese culture.

To solve the issue in the field of art education, we must adhere to the problem- and cause-oriented approach and focus on the issues of balance and fairness, quality and efficiency, educational ideals and social reality, national needs and individual expectations, etc. Among them, the implementation of education teaching reform is the key. Taking art as the classic and education as the latitude, promoting teaching reform of art education is an important path to preserving the excellent traditional Chinese culture, cultivating innovative consciousness, and
promoting students’ overall development. It is necessary to reform the understanding of the value and significance of art education by administrative departments, schools, and educational practitioners so as to ensure the balanced development of art education and actively play the dominant role of art education in schools. It is necessary to improve the supply side of art education. The quality, innovation, and efficiency of the school can not only promote the improvement of students’ aesthetic and literacy levels but also meet society’s demand for talent training. Only by adhering to the effectiveness, precision, and innovation of art education supply can we realize the transformation of the teaching and truly run education that satisfies the people.

Promoting the teaching reform of art education, compared with the previous art education work, has not only inheritance and continuation but also innovation and development. In the past, the main problem was to solve the problem of an insufficient total supply of art education. Now, while promoting the continuous increase of total supply, it is necessary to pay attention to the improvement of supply quality, optimise the supply structure, pay attention to students’ actual sense of gain, and use rich art education resources and diverse The evaluation system, personalised teaching mode, open education environment, and other new supply-side structures replace and break the original single training mode, unified curriculum resources, and rigid examination and evaluation supply structure, so as to realise art education reform.

References


https://www.exploratorium.edu/education/ifi/constructivist-learning


