

The Multidimensional Connotation of Cognitive Engagement in Aesthetic Education and Teaching Promotion Strategies

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Abstract: The core value of aesthetic education lies in the collaborative cultivation of skills and cognitive abilities, and cognitive engagement is a key indicator for measuring its effectiveness. Its connotation covers the initiative of artistic perception, the depth of work comprehension, the transferability of aesthetic experience, the independence of artistic criticism, and the correlation of creative expression. The current aesthetic education has problems such as emphasizing skills over cognition, and single teaching methods, which restrict the improvement of cognitive engagement. This article is based on the *Compulsory Education Art Curriculum Standards (2022 Edition)* and frontline teaching research, sorting out the multidimensional connotation of cognitive engagement, analyzing teaching difficulties, and proposing strategies from the aspects of goal optimization, method innovation, and evaluation improvement. The implementation of these strategies can help teachers adjust their teaching focus, enabling students to not only master skills through art learning, but also form habits of active cognition, effectively promoting aesthetic education from formalization to in-depth development, and providing reference for the implementation of aesthetic education goals.

Keywords: Aesthetic Education, Cognitive Engagement, Multidimensional Connotation, Teaching Strategies, Aesthetic Cognition.

1. Introduction

The Opinions on Comprehensively Strengthening and Improving School Aesthetic Education in the New Era explicitly require aesthetic education to "enhance students' aesthetic and humanistic literacy", which directly highlights the importance of the cognitive level of aesthetic education. The Ministry of Education stipulates that art courses in the nine-year compulsory education stage account for 9% -11% of the total class hours, which should be used for the collaborative cultivation of skills and cognition. However, from the actual teaching situation, many teachers still have a tendency to "put technique first" - art classes prioritize accurate copying of model works, music classes emphasize precise vocal performance, but neglect to guide students to perceive the emotions of works, interpret the culture behind them, and put forward their own aesthetic views [1]. Once I went to a grassroots school in Zhoukou, Henan to listen to a class and saw students in art class drawing line by line according to the model. When I asked them, 'Why do you draw like this?' Most of them answered, 'The teacher asked you to draw like this.'; In music class, students mechanically sing "Jasmine Flower" without realizing that the song contains folk stories from the water towns of Jiangnan. This 'hands-on yet mindless' learning has turned aesthetic education into a 'skill training program', where students cannot feel the charm of art, nor can they understand life and express themselves through art. After teaching in this way, students often passively memorize techniques and copy model works, without independent thinking or the ability to apply the aesthetic skills learned in class to their daily lives. This situation is clearly disconnected from the original intention of aesthetic education, so we need to first clarify the connotation of cognitive engagement, and then find targeted ways to improve teaching, ultimately shifting aesthetic

education from "skill training" to "cultivating literacy", and allowing aesthetic education to truly nourish the soul.

2. Multidimensional Definition of Cognitive Engagement in Aesthetic Education

Cognitive engagement in aesthetic education is not a single dimension, but rather several interconnected and progressive aspects that form a complete aesthetic cognitive process [2]. Firstly, there is the perceptual dimension, which is the starting point of cognition. Students need to actively use their eyes to see and ears to listen, to grasp the details and emotions of artistic works. For example, in art class, students are not only allowed to see one painting, but are guided to actively say, 'This painting uses warm colors and feels very warm.'; In music class, let them hear 'this melody has a fast rhythm, like running', this purposeful perception differs from casual viewing or listening.

Then there is the comprehension dimension, which involves exploring the inherent connotations and cultural context of works. For example, when it comes to Li Bai's "Quiet Night Thoughts", it is not enough to just memorize sentences. It is necessary to analyze "why use the 'bright moon' to express homesickness" in conjunction with his background of living in a foreign land; When talking about Dunhuang murals, it is important to explain to students how the prevalence of Buddhism in the Tang Dynasty influenced the content of the murals, so that they understand that the flying apsaras and donors in the paintings are not only beautiful, but also hide the spiritual world of the people at that time.

The transfer dimension is to apply the learned aesthetic ability to other places. For example, after learning the "blank space" in landscape painting, one can discover the beauty of

"blank space" in calligraphy, and even know that "leaving some space is more comfortable" when decorating one's own desk [3]. The critical dimension is to encourage students to have their own ideas, not just what the teacher says - for example, in Picasso's *Guernica*, students can say, "The lines of this painting are very messy, it looks very oppressive, but they can feel the pain of war." Such well-founded viewpoints are more valuable than passive agreement.

Finally, the creative dimension serves as an expression of accumulated cognitive experiences. For example, in elementary school art painting "My Family", some students use orange to draw the living room, explaining, "My house always has warm lights on, so it feels warm." Others use crooked lines to draw their fathers, saying 'Dad's shoulders will collapse when he smiles'. This kind of creation with one's own understanding and emotions is not mere mechanical copying of model works, which is consistent with the Ministry of Education's concept of incorporating handmade crafts such as origami and quilling into artistic quality assessment.

3. The Realistic Dilemma of Enhancing Cognitive Engagement in Aesthetic Education

From the observation of the teaching site, there are three main challenges in improving cognitive engagement, and these issues also affect each other. Firstly, the teaching objectives are biased, and many teachers prioritize achieving skill standards. In art class, the teacher spends forty minutes explaining how to draw lines and colors, and finally leaves ten minutes for students to draw according to the pattern; In music classes, teachers teach singing sentence by sentence and correct mistakes, but fail to discuss the story behind the song with students. Based on the core conclusion of the "high proportion of skill teaching" in the quality monitoring of aesthetic education by the Ministry of Education in 2023, some primary school art classrooms do have a situation where teachers spend more than 70% of their time teaching techniques and students have less than 30% of their time discussing independently[4]. As a result, there is no opportunity for cognitive engagement. Many teachers feel that "cognition is too abstract and difficult to teach", and prefer to focus on quantifiable skills. An art teacher in Shangqiu, Henan admitted that "teaching students to paint evenly can directly see the effect in the final exam, but teaching to interpret works cannot immediately produce grades". This mentality constantly compresses cognitive guidance in the classroom, forming a vicious cycle: the less cognitive guidance is provided, the weaker students' cognitive abilities become; the weaker their abilities, the less willing teachers are to prioritize cognition.

Secondly, the teaching methods are too simplistic, mostly relying on "teachers lecturing and students listening". For example, in an appreciation class, the teacher would present a PowerPoint presentation to introduce the background, and the students would sit and listen until they finished reading. Once I attended a sculpture appreciation class at a primary school in Linyi, Shandong. The teacher only showed a few pictures of "The Thinker" and said, "This is Rodin's work, expressing thinking." The students couldn't even feel the bronze texture of the sculpture or the life-size proportions. After class, they were asked, "What do you think 'The Thinker' is thinking about?" Many people said, "I don't know, the teacher didn't

explain." How can there be cognitive resonance in this way [5]?

Finally, there is a problem with the evaluation method, which only focuses on the results and not the process. The final evaluation score for art mainly depends on whether the painting looks like a model or not; Music depends on whether singing runs out of tune or not. Previously, I communicated with middle school art teachers in Haidian and Chaoyang districts of Beijing. They said that during the final grading, more than 80% of the scores are based on skills, and only over 10% will ask students, "What does your painting want to express?" or "What do you think is good about this song?" Students gradually learn that 'as long as they draw like and sing accurately, it's enough', and naturally they are unwilling to spend time thinking, speaking, and exploring.

4. Teaching Promotion Strategies Based on Cognitive Goal Optimization

To solve these problems, the first step is to set the cognitive goals correctly and give teaching direction. On the one hand, we need to follow the curriculum standards and implement core competencies. For example, in the *Compulsory Education Art Curriculum Standards (2022 Edition)*, the reference to "image literacy" should not be limited to "cultivating image literacy competence", but should be specific to "enabling students to actively express the characteristics of colors and compositions in paintings"; When it comes to "cultural understanding," it is clear that "students should combine history to explain the local characteristics in folk songs," so that teachers can teach without confusion [6].

On the other hand, the goals of different academic stages should be tailored to meet the cognitive level of students [7]. In primary school, encourage them to express their personal feelings, such as "What does the color of this painting remind you of?" In junior high school, enable them to "use knowledge", such as "using learned ancient painting knowledge to make handwritten newspapers"; In high school, let them be able to evaluate and create, such as comparing the differences between two art styles and drawing a painting with their own ideas. such appropriately challenging goals encourage students to actively engage in cognitive activities, and are willing to actively participate in cognitive activities. And after setting the goal, it is also necessary to explain clearly to the students that "this class is not just about learning to draw, but also about learning how to look at drawing and how to express one's own ideas", so that students can understand the importance of cognitive engagement from the beginning. For example, in a third grade art class at a primary school in Suzhou, Jiangsu, the teacher prepared red and blue cards around the goal of "perceiving color emotions". The teacher asked the students to touch and look at them, and then said, "Seeing red reminds us of the Chinese New Year and makes it lively; seeing blue reminds us of the sea and makes it quiet," turning abstract goals into actionable activities; The goal of a middle school music class in Xi'an, Shaanxi province is to "understand folk song culture". The teacher takes students to listen to Shaanbei Xintianyou and Jiangnan minor tunes, compares them with "the high notes of Shaanxi Xintianyou resemble the mountain ridges of the Loess Plateau, and the gentle melody of the minor tunes is like the flowing water of Jiangnan", and then combines the local geographical

environment to explain the differences. The goal is not just on paper, but integrated into the classroom process. Students follow along and speak, and their cognition naturally starts to move.

5. Relying on Innovative Teaching Methods to Activate Cognitive Engagement

Once the goal is set, we still need to use the right methods to make students willing to use their brains. Situational teaching is very useful, for example, when it comes to "Along the River during Qingming Festival", don't just look at the pictures. Open the interactive version of the Palace Museum's "Digital Collection", and let students click on the shops and people in the picture to see how people did business and walked at that time. Then ask them "from these details, you can see where the bustling capital of the Northern Song Dynasty was", and students will naturally think actively.

There is also project-based learning, such as a middle school art program in Hangzhou, Zhejiang that offers "Campus Culture Poster Design". Students are asked to choose their own themes - some choose "quiet atmosphere in the library", some choose "fighting spirit in sports games", and then find materials and analyze how to design excellent posters. Finally, they have to explain to their classmates "why I draw like this". The students of this school also interviewed school workers and old teachers, collected old photos of the campus as materials, and someone specially drew an old locust tree at the school gate during the design process, saying, "This is the symbol of the school, which can remind students of the time they spent playing under the tree during break time." This kind of emotional and research-informed creation can better reflect the depth of cognition than simply imitating, and is also in line with the research conclusion of the Beijing Normal University team that "manual practice promotes cognitive development". Throughout the entire process, students need to observe, understand, and judge, and their cognition is fully involved.

Interdisciplinary integration can also open up new perspectives. For example, art and history are taught together about Tang Dynasty murals, and students are shown the style of the Ruqun in the murals. Then, combined with the "policy of opening up in the prosperous Tang Dynasty" learned in history class, they analyze "why the collars of clothes were so low at that time"; The combination of music and Chinese language allows students to choose background music for "Quiet Night Thoughts" and ask, "Why did you choose this song? How does its rhythm match the homesickness of the poem?" This way, students can understand art from multiple perspectives and have a more comprehensive understanding [8].

6. Improve the Evaluation System to Ensure the Continuity of Cognitive Engagement

Evaluation must keep up in order to sustain cognitive engagement. Firstly, pay attention to the process, not just the final work. Teachers can design a 'cognitive engagement checklist', for example, if a student actively expresses their opinions on the work today and takes notes; Being able to apply the aesthetic knowledge learned to daily life and document it, letting students know that 'when I use my brain,

the teacher can see it'.

Then students should also participate in the evaluation. After finishing their art homework, let the students say to themselves, 'What do I want to express and what problems do I encounter while drawing?'; Ask classmates to evaluate each other's ideas and identify areas for improvement; Finally, based on these feedbacks, the teacher provides feedback on students' cognitive growth, such as "You have improved compared to last time by being able to combine history with your work [9]. This way, students can reflect on themselves and gradually improve their cognitive abilities.

We also need to refine the content of cognitive evaluation. For example, in terms of perceptual dimension, it depends on whether students can actively discuss the details of the work; In the comprehension dimension, it assesses whether students can interpret the work's connotations by integrating its cultural background; In the critical dimension, it assesses whether students can put forward evidence-based personal opinions. The evaluation criteria are clear, students know which direction to strive towards, and cognitive engagement is more targeted. The "Cognitive Development Portfolio" designed by a pilot school for aesthetic education in Xicheng District, Beijing is a typical example. In addition to the works, there are also students' "aesthetic diaries" - some write "Today, I watched Van Gogh's 'Sunflowers' and felt that yellow is like the sun and has power", while others write, "I used my color knowledge to help my mother choose curtains, and she said the curtains look good". During the final evaluation, the teacher reviews the portfolio records with the students and talks about "what progress you have made in understanding art this semester", instead of just looking at the last painting. This evaluation makes students feel that every step of cognitive growth is valued, and their motivation to participate is naturally stronger. And the files will be passed on to the next generation of teachers, allowing new teachers to quickly understand students' cognitive foundations, better design teaching, and form a virtuous cycle of "evaluation-teaching-growth". This is consistent with the requirement of the Ministry of Education that "art classes need to balance process and results" [10], so that cognitive engagement is not just a gust of wind, but can continue to follow students' art learning.

7. Conclusion

The cognitive engagement in aesthetic education is a holistic process that involves perception, understanding, transfer, criticism, and creation. The core is to transform students from passive learning to active thinking. The problems of skill prioritization, single methods, and one-sided evaluation that currently exist ultimately stem from a lack of emphasis on cognitive engagement, which does not align with the goal of "enhancing humanistic literacy" in aesthetic education, and wastes the valuable teaching resources allocated to art courses, which account for 9%–11% of total class hours.

The three strategies proposed in this article, namely "optimizing goals, innovating methods, and improving evaluation," are all based on curriculum standards, frontline teaching research, and the results of the 2023 Ministry of Education's aesthetic education quality monitoring, forming a closed loop - goals indicate direction, methods activate motivation, and evaluation provides guarantees. These strategies are not just talk on paper. During the pilot projects in grassroots schools in Suzhou, Jiangsu and Hangzhou,

Zhejiang, we have already seen many changes: in some classrooms, students have begun to raise their hands and propose, 'I think this painting carries additional connotations.'; Some students apply the aesthetic knowledge learned in art classes to handwritten newspapers and class assignments. In the future, with the deepening of aesthetic education, the improvement of cognitive engagement still requires the cooperation of schools, families, and society. Schools should provide teachers with training in cognitive teaching, such as organizing "art cognitive lesson case studies" to help teachers solve the problem of "how to teach cognition"; Families should encourage children to express their opinions on art more, rather than just asking 'how well they draw' or 'how accurately they sing'; Society should provide more opportunities for artistic experiences, such as interactive exhibitions in museums and community art activities, so that students can also exercise their cognitive abilities in their daily lives. Only through the joint efforts of multiple parties can students truly "move" in art learning, make cognitive engagement a habit, make aesthetic education an important force for nurturing students' comprehensive development, and help students develop into individuals who can perceive beauty, understand beauty, and create beauty.

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