Theoretical Basis And Content Screening Mechanism For Adapting Primary School Textbook Libraries To Early Childhood Aesthetic Education—From The Perspective Of Kindergarten-Primary School Transition

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Abstract
The kindergarten-primary school transition stage constitutes a critical period for children's cognitive development and aesthetic enlightenment, with its educational quality directly influencing the smooth transition of young children to the school-age phase. As the core carrier of subject knowledge inheritance and cultural transmission, primary school textbook libraries encompass abundant aesthetic resources. However, compiled primarily for school-age children, these textbooks exhibit significant adaptability contradictions with young children's cognitive characteristics in terms of knowledge difficulty, logical rigor, and presentation methods.

Based on theories of educational science, aesthetics, and developmental psychology, this study systematically integrates three core elements: the transition education experience accumulated in the development of New China's educational science, enlightenment from the localization practice of Western educational science, and the laws of children's cognitive development. By doing so, it constructs a multi-dimensional theoretical framework for adapting primary school textbook libraries to early childhood aesthetic education. Furthermore, a feasible content screening mechanism is established from three dimensions: knowledge difficulty gradient, aesthetic element extraction, and young children's cognitive adaptability.

To verify the feasibility and practical value of the screening criteria, a comprehensive analysis of typical cases across Chinese, mathematics, science, art, and other subjects is conducted. The research aims to achieve multiple objectives: to provide a solid theoretical foundation and specific practical paths for the development of aesthetic education textbooks during the kindergarten-primary school transition; to facilitate the coordinated development of young children's aesthetic literacy and basic subject abilities; to enrich the theoretical system of transition education; and to expand the interdisciplinary research perspective integrating educational science, aesthetics, and developmental psychology.

Keywords: Kindergarten-Primary School Transition; Primary School Textbook Library; Early Childhood Aesthetic Education; Screening Mechanism; Theoretical Basis; Cognitive Development

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I. Introduction

Research Background

With the in-depth advancement of China's education modernization drive, the kindergarten-primary school transition has emerged as a pivotal focus in basic education. The *Guidelines for the Learning and Development of Children Aged 3-6* explicitly emphasizes the need to "pay attention to the connection between kindergarten and primary school and cultivate young children's adaptability to primary school study and life," elevating the significance of transition education to a policy level. As a core component of quality education, the lack of continuity or disconnection in aesthetic education during this transition stage results in a severe mismatch between young children's aesthetic development and primary school subject education. This not only hinders the continuous improvement of young children's aesthetic literacy but also restricts their acceptance and internalization of primary school subject knowledge.

Primary school textbook libraries cover a wide range of subjects, including Chinese, mathematics, science, art, and music, containing rich resources of natural beauty, linguistic beauty, formal beauty, and emotional beauty. For instance, Chinese textbooks feature rhythmic ancient poems and vivid literary images; mathematics textbooks present the symmetrical beauty of geometric figures and the orderliness of numerical arrangements; science textbooks showcase the morphological beauty of organisms and the regularity of natural phenomena; and art textbooks display the color harmony and compositional beauty of visual works. However,

existing primary school textbooks are designed based on the cognitive level of school-age children, who possess abstract thinking abilities, while young children are dominated by concrete image thinking. This discrepancy leads to obvious adaptability contradictions in three aspects: first, the abstraction of knowledge (e.g., the explanation of rhetorical devices in Chinese textbooks and the definition of mathematical concepts are too abstract for young children); second, logical rigor (e.g., the deductive reasoning in science textbooks exceeds young children's cognitive capacity); and third, presentation methods (e.g., the text-heavy format in textbooks fails to attract young children's attention).

Since the founding of New China, the development of educational science in China has undergone three distinct stages: reconstruction (1949-1966), destruction (1966-1976), and re-reconstruction (1976-present) [2]. During the reconstruction and re-reconstruction phases, transition education theory has gradually improved in the exploration of the sinicization of educational science, emphasizing that education must conform to national conditions and children's developmental realities. In the dissemination of Western educational science, Dewey's theory of "education as growth" and Piaget's theory of cognitive development stages have provided important theoretical references for bridging early childhood education and primary school education. Dewey advocated that education should follow the laws of children's growth, oppose mechanical indoctrination, and promote development through activities and experience; Piaget divided children's cognitive development into four stages (sensorimotor, preoperational, concrete operational, and formal operational), noting that young children in the preoperational stage require concrete, intuitive learning content[4](Zheng Xudong, 2025). However, the current integration of primary school textbooks and early childhood aesthetic education still lacks systematic theoretical support and feasible practical paths. There is an urgent need to establish a scientific adaptation mechanism to realize the effective connection between primary school textbook resources and the needs of early childhood aesthetic education.

Research Significance
Theoretical Significance
This study makes several theoretical contributions. First, it constructs a multi-dimensional theoretical framework for the integration of primary school textbook libraries and early childhood aesthetic education, integrating interdisciplinary theoretical resources from educational science, aesthetics, and developmental psychology. This framework clarifies the logical starting point and theoretical basis for adaptation, enriching the theoretical system of transition education. Second, by systematically sorting out the transition education experience in New China's educational science development, enlightenment from the localization of Western educational science, and the laws of children's cognitive development, the study expands the interdisciplinary research perspective of educational science, aesthetics, and developmental psychology. Third, it provides a theoretical reference and research paradigm for subsequent related studies, laying the foundation for in-depth exploration of the connection between transition education and aesthetic education.

Practical Significance
The practical value of this research is reflected in multiple aspects. First, it establishes a specific and operable content screening mechanism, helping early childhood educators and researchers efficiently extract aesthetic education content suitable for young children from primary school textbooks, thereby addressing the practical problems of insufficient aesthetic education resources and poor content adaptability during the transition stage. Second, through case analysis, the feasibility of the screening mechanism is verified, providing specific guidance for early childhood aesthetic education teaching practice. For example, teachers can use the mechanism to select and adapt textbook content to design intuitive and interesting aesthetic activities. Third, the adapted content can improve young children's aesthetic perception, judgment, and creativity, while enhancing their perceptual cognition of primary school subject knowledge, laying a solid foundation for their primary school learning and realizing the coordinated promotion of aesthetic education and subject education.

Research Status
Domestic Research Status
Domestic scholars' research on the kindergarten-primary school transition has mainly focused on two aspects: the connection of subject knowledge (e.g., Chinese character recognition, mathematical calculation) and the cultivation of learning habits (e.g., task awareness, rule awareness), while attention to the connection of aesthetic education remains insufficient. Relevant studies on early childhood aesthetic education mostly focus on practice within kindergartens, lacking the excavation and utilization of primary school textbook resources.

Hou Huaiyin [1] pointed out in his research on the development history of New China's educational science that transition education must consider both subject logic and children's developmental laws, emphasizing that educational content and teaching methods should conform to children's cognitive characteristics. His research on the "eastward spread of Western learning" in educational science revealed that theories of Western educators

such as Dewey and Piaget have gradually been integrated with Chinese educational practice during localization, providing important theoretical support for transition education.

Liu Shen [3] conducted a bibliometric analysis of the 35-year history of *Psychological Development and Education* and found that young children's cognition is dominated by intuitive thinking, and they are more likely to accept intuitive, interesting, and concrete content. Research on cognitive and social development has laid a theoretical foundation for educational and learning psychology research. High-frequency keywords such as "young children," "children," "cognitive development," and "social development" have become research hotspots, confirming the importance of studying the adaptability between young children's cognitive characteristics and educational content.

Zheng Xudong [4] research on Piaget's theory revealed that children's cognitive development repeats the course of human cognition, and the process of children establishing scientific concepts follows the law of "from intuition to operation." This finding provides important enlightenment for the gradient design of aesthetic education content: early childhood aesthetic education should start with intuitive perception and gradually transition to simple cognition and initial application.

However, existing research has not formed a systematic theory and operable screening mechanism for adapting primary school textbook libraries to early childhood aesthetic education. There is a lack of integration of interdisciplinary theories, and in-depth discussions on the systematic excavation of aesthetic resources in primary school textbooks and adaptation methods are insufficient, leaving a broad space for exploration in this study.

International Research Status

International research on the kindergarten-primary school transition and aesthetic education focuses more on the integration of curriculum resources and the adaptation of teaching methods. Western scholars such as Dewey and Piaget have laid the theoretical foundation for children's cognitive development and educational adaptation. Dewey's "learning by doing" theory advocates that education should be closely combined with children's life experiences, emphasizing the importance of hands-on activities and situational experience in aesthetic education. Piaget's cognitive development stage theory provides a psychological basis for the design of aesthetic education content, emphasizing that educational content should match children's cognitive level.

In terms of practical research, foreign scholars have carried out a series of studies on the adaptation of textbook resources. For example, some studies have explored how to extract age-appropriate aesthetic elements from primary school science textbooks to design early childhood science aesthetic education activities; others have focused on the adaptation of language textbooks, transforming abstract literary works into concrete, intuitive forms such as stories and role-plays to cultivate young children's linguistic aesthetic ability. However, international research lacks targeted exploration of the adaptation of primary school textbook libraries to early childhood aesthetic education from the perspective of the kindergarten-primary school transition, and there is little reference for the integration of Eastern and Western educational contexts.

Research Methods and Innovations
Research Methods
(1) **Literature Research Method**: Systematically sort out theoretical literature related to educational science, aesthetics, and developmental psychology. Focus on analyzing research results such as the development history of New China's educational science, the localization practice of Western educational science, and the laws of young children's cognitive development. Summarize and induce relevant theories to construct the theoretical basis of this study.
(2) **Case Analysis Method**: Select typical content from primary school Chinese, mathematics, science, and art textbooks as cases. Use the constructed screening mechanism to conduct adaptability analysis, including knowledge difficulty reduction, aesthetic element extraction, and cognitive adaptation optimization. Verify the feasibility and practical effect of the screening criteria through in-depth analysis of cases.
(3) **Framework Construction Method**: Based on interdisciplinary theories and literature analysis, establish a three-dimensional screening framework including knowledge difficulty, aesthetic elements, and young children's cognitive adaptability. Clarify the screening principles (connectivity, appropriateness, aesthetics, subjectivity), processes (preliminary selection, multi-dimensional evaluation, optimization adjustment, verification and improvement), and specific indicators (e.g., knowledge difficulty is divided into sensory experience layer, simple cognitive layer, and initial application layer).
(4) **Comparative Research Method**: Compare the characteristics of aesthetic resources in textbooks of different subjects (e.g., linguistic beauty in Chinese textbooks, formal beauty in mathematics textbooks) and analyze the cognitive differences of young children of different age groups (3-4 years old, 4-5 years old, 5-6 years old). Provide a basis for the gradient design and subject adaptation of the screening mechanism.

(5) **Expert Consultation Method**: Invite experts in the fields of early childhood education, primary school education, aesthetics, and developmental psychology to evaluate and revise the constructed theoretical framework and screening mechanism. Ensure the scientificity and operability of the research results.

Innovations
(1) **Perspective Innovation**: From the unique perspective of the kindergarten-primary school transition, break the barrier between primary school textbooks and early childhood aesthetic education. Realize the effective connection between primary school subject resources and the needs of early childhood aesthetic education, filling the gap in existing research that insufficiently focuses on the integration of the two.
(2) **Theoretical Innovation**: Integrate interdisciplinary theories such as educational science, aesthetics, and developmental psychology. Combine the development experience of New China's educational science, enlightenment from the localization of Western educational science, and the laws of young children's cognitive development to construct a scientific and practical adaptation theoretical framework. Clarify the multi-dimensional theoretical support for adaptation, including educational basis (transition education theory, subject integration theory, localization theory of Western educational science), aesthetic basis (early childhood aesthetic development theory, aesthetic education enlightenment theory), and developmental psychology basis (laws of cognitive development, characteristics of emotional development, laws of social development).
(3) **Practical Innovation**: Establish an operable three-dimensional screening mechanism, clarifying screening principles, indicators, and processes. Verify its feasibility through multi-disciplinary case analysis, providing specific guidance for educational practitioners. Realize the organic combination of theory and practice, transforming abstract primary school textbook content into aesthetic activities that young children can perceive and participate in.

II. Theoretical Basis For Adapting Primary School Textbook Libraries To Early Childhood Aesthetic Education

Educational Basis
Transition Education Theory
During the reconstruction stage of New China's educational science (1949-1966), the idea of transition education was gradually formed in the exploration of the sinicization of educational science. Hou Huaiyin [1] pointed out that the practice of the sinicization of educational science from 1957 to 1966 emphasized that education should conform to national conditions and children's actual conditions, providing core guidance for the kindergarten-primary school transition. Transition education theory holds that early childhood education and primary school education should form a continuous and naturally transitional education system to avoid "educational disconnection," emphasizing the gradient and continuity of educational content and teaching methods.

As the core resource of primary school education, the adaptation of primary school textbook libraries to early childhood aesthetic education must strictly follow the "gradient" principle of transition education. Transform the abstract subject knowledge in primary school textbooks into concrete content that young children can perceive and understand, so as to realize the smooth transition from the "enlightenment" of early childhood education to the "foundation" of primary school education. For example, ancient poems in Chinese textbooks can be transformed into content that young children can recite and paint; mathematical concepts can be presented through physical operations and games.

In the process of the spread of Western educational science, Dewey's theory of "education as growth" and Piaget's theory of cognitive development stages have provided important theoretical references for transition education. Dewey emphasized that education should follow the laws of children's growth, oppose mechanical indoctrination, and advocate promoting children's development through activities and experience; Piaget pointed out that children's cognitive development is divided into four stages, and young children are in the preoperational stage, requiring learning through concrete content [4](Zheng Xudong, 2025). This requires that when adapting primary school textbook content to early childhood aesthetic education, it is necessary to break the rigor of subject logic, present aesthetic elements through carriers such as activities, situations, and images that young children can perceive, and avoid the direct teaching of abstract theories.

Subject Integration Theory
During the reconstruction stage of educational science (1976-present), interdisciplinary integration has become an important development trend. Hou Huaiyin [1] proposed that the construction of educational science needs to handle the relationship between the subject system and the knowledge system, avoid subject barriers, and emphasize enriching and improving educational content through an interdisciplinary perspective. Primary school textbook libraries cover multiple subjects such as Chinese, mathematics, science, and art, and each subject contains unique aesthetic resources and presents diverse aesthetic forms.

The Chinese subject contains rich linguistic beauty and literary image beauty. The rhythmic beauty of ancient poems, the artistic conception beauty of prose, and the image beauty of fairy tales can stimulate young children's language perception and imagination; the formal beauty and logical beauty of the mathematics subject, such as the symmetrical beauty of geometric figures, the order beauty of number arrangement, and the simplicity beauty of mathematical laws, help to cultivate young children's formal aesthetic ability; the natural beauty and law beauty of the science subject, such as the morphological beauty of animals and plants, the change beauty of natural phenomena, and the rigor beauty of scientific laws, can guide young children to feel the charm of nature and science; the composition beauty and color beauty of the art subject directly point to the cultivation of young children's aesthetic skills.

The subject integration theory provides an important basis for integrating these aesthetic resources, advocating excavating aesthetic education elements in primary school textbooks through an interdisciplinary perspective, breaking subject boundaries, and realizing the organic integration of aesthetic education and subject knowledge. For example, combine the scenery description prose in Chinese textbooks with the natural knowledge in science textbooks to guide young children to feel natural beauty; combine the artistic conception in poems with the painting and manual activities in art textbooks to cultivate young children's formal aesthetics and creativity, and realize the all-round development of young children's comprehensive aesthetic literacy.

Localization Theory of Western Educational Science

The spread of Western educational science in China has experienced a process from "copying and imitating" to "localization innovation"[2] (Hou Huaiyin, 2020). Since the 20th century, the theories of Western educators such as Dewey, Piaget, and Rousseau have been introduced into China, and after localization transformation, they have been gradually integrated into Chinese educational practice.

Rousseau's natural education theory emphasizes following children's nature and advocates cultivating children's aesthetic perception through natural experience. For example, content related to natural scenery can be selected from primary school science textbooks to guide young children to approach nature and feel natural beauty. Piaget's genetic epistemology reveals the laws of children's cognitive development, providing a psychological basis for the design of aesthetic education content. For example, abstract knowledge in primary school textbooks can be transformed into concrete aesthetic experience based on Piaget's cognitive development stage theory. Dewey's theory of "learning by doing" provides important enlightenment for aesthetic education teaching methods, advocating carrying out aesthetic education activities through hands-on operation, situational experience, and other methods. For example, design hands-on aesthetic education activities combined with Chinese fairy tales to realize the organic combination of aesthetic experience and subject learning.

These localized Western educational theories provide important guidance for adapting primary school textbook libraries to early childhood aesthetic education, emphasizing that aesthetic education should conform to children's nature and cognitive laws, and combine with practical activities to improve educational effectiveness.

Aesthetic Basis
Early Childhood Aesthetic Development Theory

Early childhood aesthetic development is a gradual process, showing a development track from perceiving beauty to understanding beauty, from concrete beauty to abstract beauty, and from individual experience to social resonance. Early childhood aesthetics is dominated by intuitive aesthetics, and aesthetic pleasure is obtained through sensory experiences such as vision, hearing, and touch. Young children are more sensitive to concrete aesthetic elements with bright colors, unique shapes, and beautiful sounds. Liu Shen's research shows that young children have higher participation in intuitive and interesting aesthetic content and can form preliminary aesthetic judgments through sensory experiences [3].

The rich visual images, linguistic rhythms, and formal structures in primary school textbooks are highly consistent with the characteristics of young children's intuitive aesthetics. Ancient poems in Chinese textbooks have distinct rhythmic beauty and artistic conception beauty. For example, the vivid description of "curving neck singing to the sky" in *Ode to the Goose* can arouse young children's aesthetic association through linguistic rhythm. Painting works and manual examples in art textbooks can directly provide young children with materials for aesthetic imitation and creation.

Early childhood aesthetic development has phased characteristics: 3-4-year-old young children are mainly engaged in sensory aesthetics, focusing on the direct experience of colors, shapes, and sounds; 4-5-year-old young children begin to form preliminary aesthetic preferences and can make simple judgments on the beauty and ugliness of aesthetic objects; 5-6-year-old young children begin to have preliminary aesthetic expression ability and can express their aesthetic feelings through painting, manual work, and other methods. When adapting primary school textbook content to early childhood aesthetic education, it is necessary to fully consider the phased characteristics of early childhood aesthetic development and select content matching the aesthetic ability of young children in different age stages.

Aesthetic Education Enlightenment Theory

Aesthetic education enlightenment emphasizes cultivating individuals' aesthetic perception ability, aesthetic judgment ability, and aesthetic creativity through aesthetic experience, focusing on the accumulation of aesthetic experience and the gradual improvement of aesthetic literacy, rather than the teaching of systematic aesthetic knowledge. Cai Yuanpei put forward the "theory of replacing religion with aesthetic education," advocating that aesthetic education is an important way to cultivate a sound personality, emphasizing cultivating individuals' aesthetic taste and spiritual realm through aesthetic education[1]. This thought provides important guidance for early childhood aesthetic education, that is, early childhood aesthetic education should take enlightenment as the core goal, stimulate young children's interest and love for beauty through rich aesthetic experiences, and lay a foundation for subsequent aesthetic development.

The adaptation of aesthetic education content in primary school textbook libraries to early childhood aesthetic education must strictly follow the "enlightenment" principle, focusing on the accumulation of young children's aesthetic experience and the cultivation of aesthetic interest. By guiding young children to feel the aesthetic elements in primary school textbooks, such as the linguistic rhythm in Chinese textbooks, the formal laws in mathematics textbooks, the natural scenery in science textbooks, and the color composition in art textbooks, cultivate their sensitivity and expressiveness to beauty. For example, guide young children to appreciate the character image beauty of fairy tales in Chinese textbooks, feel the creative beauty of graphic combinations in mathematics textbooks, experience the magical beauty of natural phenomena in science textbooks, and create simple manual works in art textbooks, so that young children can accumulate aesthetic experience and improve their aesthetic literacy in an imperceptible way.

The localization practice of Western aesthetic education theories also provides important references for early childhood aesthetic education. For example, Schiller's aesthetic education theory emphasizes realizing the all-round development of people through aesthetic education, advocating integrating aesthetics into daily life and learning; Froebel's early childhood education theory advocates cultivating young children's aesthetic ability through games, manual work, and other activities. Combining these theories with traditional Chinese aesthetic education thoughts (such as "poetry education" and "music education") has formed an early childhood aesthetic education concept with both Chinese and Western characteristics, requiring that the aesthetic education content in primary school textbooks not only pay attention to sensory experience but also emphasize spiritual cultivation; not only pay attention to individual interests but also focus on cultural inheritance.

Developmental Psychology Basis
Laws of Young Children's Cognitive Development

Through bibliometric analysis, Liu Shen found that young children's cognitive development is dominated by concrete image thinking, with weak abstract thinking ability, and they are more likely to accept and understand intuitive, interesting, and concrete content [3]. Piaget's genetic epistemology points out that young children construct their cognitive structure through "assimilation" and "accommodation," and need to acquire knowledge through activities and experience rather than passively accepting abstract theories[4]. This requires that when adapting primary school textbook content to early childhood aesthetic education, it is necessary to transform abstract subject knowledge into concrete aesthetic experience and present it in a form that young children can perceive, operate, and participate in.

For example, transform the words in Chinese textbooks into vivid pictures and stories (such as associating the character "mountain" with the image of a mountain peak); transform abstract mathematical concepts (such as "quantity") into physical operations (such as counting with building blocks and candies); transform scientific knowledge (such as "plant growth") into planting practice activities. Through this concrete transformation, it not only conforms to the laws of young children's cognitive development but also allows young children to initially perceive subject knowledge in aesthetic experience, realizing the coordinated promotion of cognitive development and aesthetic cultivation.

Zheng Xudong's research on Piaget's theory reveals that children's cognitive development is a repetition of the course of human cognition, and the process of children establishing scientific concepts follows the law of "from intuition to operation." [4]For example, children's cognition of the concept of time first forms "intuitive time" (time perception based on specific events), and then gradually develops into "operational time" (time understanding based on logic). This law requires that the content related to time in primary school textbooks (such as time description in Chinese textbooks and growth cycles in science textbooks) should start with "intuitive time" when adapting to early childhood aesthetic education, helping young children establish time perception through specific events and situational experiences, and avoiding direct teaching of abstract time concepts.

Characteristics of Young Children's Emotional Development

Young children's emotional development has the characteristics of exposure, susceptibility, and situationality. Their emotional experience is direct and strong, and they are easily infected by vivid and image

aesthetic objects. The cultivation of aesthetic emotion needs to rely on positive emotional experience, triggering young children's emotional resonance through aesthetic objects, and promoting the development of their positive emotional qualities. Liu Shen's [3] research shows that young children's emotional development is closely related to social development, and positive aesthetic experience can promote the formation of young children's emotional qualities such as self-esteem, self-confidence, and empathy.

Primary school textbooks contain rich emotional resources. The integration of these emotional contents with early childhood aesthetic education can stimulate young children's positive emotions through aesthetic experience. For example, the family love, friendship, and patriotic feelings in Chinese textbooks (such as the homesickness in *Quiet Night Thought* and the childlike innocence in *The Little Boat*) can arouse young children's emotional resonance; the beautiful descriptions of nature in science textbooks can stimulate young children's love for nature; the colorful works in art textbooks can evoke young children's pleasure in beauty.

Transmitting positive emotions through aesthetic experience can not only promote the development of young children's emotional qualities but also enhance their recognition and acceptance of primary school textbook content, laying a good emotional foundation for the kindergarten-primary school transition.

Laws of Young Children's Social Development
Young children's social development is an important process for individuals to integrate into society and form a sound personality, including the development of self-awareness, interpersonal communication, and social cognition. Liu Shen's research points out that peer relationships and parent-child relationships have an important impact on young children's social development, and aesthetic activities are an effective way to promote young children's social development. Through collective aesthetic activities (such as collective painting, fairy tale performances, and cooperative manual creation), young children can learn to cooperate, share, and express, and improve their interpersonal communication ability and social adaptation ability. [3]

Many contents in primary school textbooks contain social development elements. The integration of these contents with early childhood aesthetic education can promote their social development while cultivating young children's aesthetic literacy. For example, fairy tales in Chinese textbooks (such as *Kong Rong Gives Up the Pears*) can guide young children to understand the importance of humility and sharing through aesthetic experience; the description of teamwork in science textbooks can be combined with group exploration activities to cultivate young children's cooperative awareness; the etiquette norms in moral education textbooks can be presented through situational performances to help young children master basic social norms.

The social learning theory in Western educational science also provides theoretical support for this integration. This theory emphasizes learning social behaviors through observation, imitation, and experience. In aesthetic education activities, young children gradually acquire social norms and communication skills by observing peers' aesthetic expressions, imitating teachers' aesthetic guidance, and experiencing the collective aesthetic atmosphere, realizing the coordinated improvement of aesthetic literacy and social development.

III. Construction Of Content Screening Mechanism For Adapting Primary School Textbook Libraries To Early Childhood Aesthetic Education
Screening Principles
Connectivity Principle
The selected content should take into account the "enlightenment" of early childhood education and the "foundation" of primary school education, form an aesthetic education gradient from early childhood to primary school, and help the transition of education connection. Specifically, the selected content should not only conform to young children's cognitive level and aesthetic characteristics, presented in an intuitive, interesting, and concrete form but also retain the core subject elements in primary school textbooks, laying a perceptual foundation for young children's study in the primary school stage.

For example, when selecting ancient poems in Chinese textbooks, it is necessary to choose poems with simple rhythms and shallow artistic conceptions (such as *Ode to the Goose* and *Small Pool*), which not only cultivate young children's linguistic aesthetics but also accumulate perceptual experience for ancient poem learning in primary schools; when selecting mathematical content, it is necessary to retain core elements such as numbers and graphics, and present them through games and physical operations, laying a foundation for primary school mathematics learning.

The connectivity principle also requires that the selected content reflect the continuity of educational goals. The goals of early childhood aesthetic education are connected with those of primary school aesthetic education, gradually improving young children's aesthetic perception ability, aesthetic judgment ability, and aesthetic creativity. For example, in the early childhood stage, the initial perception of colors, shapes, and sounds is cultivated through primary school textbook content; in the primary school stage, the aesthetic understanding and aesthetic expression ability are further cultivated on this basis, forming a gradual aesthetic education system.

Appropriateness Principle

The selected content must conform to young children's cognitive development level and aesthetic characteristics, with moderate difficulty, intuitive form, and strong interest, avoiding exceeding the scope of young children's acceptance. According to[3] Liu Shen's (2022) research, young children have higher participation in intuitive, concrete, and interesting content. Therefore, the selected content should mainly be in the form of visual images, interesting activities, and vivid situations, avoiding abstract theories and complex logic.

The appropriateness principle also requires selecting content according to the development characteristics of young children in different age stages:

- 3-4-year-old young children focus on sensory experience content, such as colorful pictures, simple rhythmic children's songs, and touchable manual materials. For example, appreciate the color matching in art textbooks, listen to the rhythm of children's songs in Chinese textbooks, and touch the texture of different materials in manual activities.
- 4-5-year-old young children focus on simple cognitive content, such as vivid fairy tales, simple graphic combinations, and interesting natural phenomena. For example, recognize simple words in Chinese textbooks, classify basic graphics in mathematics textbooks, and observe common animals and plants in science textbooks.
- 5-6-year-old young children focus on initial application content, such as simple aesthetic creation, ancient poem recitation, and scientific small experiments. Gradually increase the difficulty and complexity of the content to conform to the phased laws of young children's development. For example, create paintings related to Chinese textbook content, carry out collage creation using mathematical graphics, and conduct simple scientific observation activities.

Aesthetic Principle

Priority is given to selecting content with distinct aesthetic elements that can stimulate young children's aesthetic perception and cultivate aesthetic ability. The aesthetic elements in primary school textbooks include various types such as natural beauty, linguistic beauty, formal beauty, and emotional beauty. When selecting, priority should be given to content with prominent aesthetic elements and strong appeal.

For example, in Chinese textbooks, select prose and ancient poems with vivid language and beautiful artistic conception; in mathematics textbooks, select content with symmetrical beauty, order beauty, and simplicity beauty; in science textbooks, select content describing the morphological beauty of organisms and the change beauty of natural phenomena; in art textbooks, select works with harmonious color matching and reasonable composition.

The aesthetic principle also requires that the selected content can arouse young children's aesthetic interest and aesthetic experience, and cultivate their aesthetic perception ability, aesthetic judgment ability, and aesthetic creativity through aesthetic activities. For example, guide young children to feel the beauty of nature by appreciating the scenery description prose in Chinese textbooks; cultivate their formal aesthetic ability through the appreciation and creation of geometric figures in mathematics textbooks; stimulate their aesthetic creativity through manual creation activities in art textbooks.

Subject Principle

The selected content should retain the core subject elements in primary school textbooks, realize the organic integration of aesthetic education and subject knowledge, and lay a foundation for young children's subsequent subject learning. Avoid deviating from the essence of the subject for the sake of aesthetic effect, and ensure that aesthetic education activities also have the significance of subject enlightenment.

For example, when selecting Chinese textbook content, it is necessary to retain the core elements of language learning (such as words, sentences, and rhythms), and help young children initially perceive language rules through aesthetic activities (such as reciting children's songs to feel the rhythm of language); when selecting mathematics textbook content, it is necessary to retain core elements such as numbers, graphics, and operations, and combine them with games and physical operations to cultivate young children's mathematical thinking; when selecting science textbook content, it is necessary to retain core elements such as natural phenomena and scientific laws, and guide young children to perceive scientific knowledge through observation and experiments.

The subject principle also requires that the selected content reflect the characteristics of the subject, organically combining subject knowledge with aesthetic elements. For example, the linguistic beauty of the Chinese subject is combined with literary knowledge, the formal beauty of the mathematics subject is combined with logical thinking training, and the natural beauty of the science subject is combined with scientific exploration ability cultivation, realizing the coordinated promotion of aesthetic cultivation and subject enlightenment.

Knowledge Difficulty Dimension

The core of the knowledge difficulty dimension is to realize the "reduced-order adaptation" and "gradient design" of primary school textbook knowledge, ensuring that the content conforms to young children's cognitive development level.

(1) **Difficulty Reduction**: Refer to the content of primary school lower-grade textbooks, transform abstract subject knowledge into concrete content that young children can understand, remove complex logical reasoning and theoretical elaboration, and retain core perceptual elements. Specific transformation methods include:

• In Chinese textbooks: Transform the explanation of rhetorical devices into the appreciation and imitation of specific metaphors and personifications (such as the image perception of "the curved moon is like a boat"); transform text analysis into interesting activities such as story telling, role-playing, and painting creation (such as transforming the text *Little Red Riding Hood* into a role-playing activity); transform word learning into the image association of pictographs (such as associating the character "mountain" with the shape of a mountain peak).

• In mathematics textbooks: Transform abstract mathematical concepts (such as "addition and subtraction") into physical operations and games (such as calculating the number of candies); transform complex logical reasoning (such as mathematical proof) into simple classification and comparison activities (such as classifying geometric figures by shape and color).

• In science textbooks: Transform abstract scientific theories (such as "photosynthesis") into simple observation and experiment activities (such as observing the growth of bean sprouts); transform professional terminology (such as "evaporation") into vivid phenomenon descriptions (such as "water disappears when exposed to the sun").

(2) **Gradient Design**: Divide the difficulty level according to young children's age characteristics, gradually approaching the knowledge difficulty of primary school textbooks, reflecting the connectivity principle. The specific gradient is divided into three stages:

• 3-4 years old (sensory experience layer): Focus on sensory experience content, mainly visual, auditory, tactile, and other sensory experiences. Do not require mastering specific knowledge, only to feel the fun of aesthetics. For example, appreciate the rhythm of children's songs in Chinese textbooks, the graphic colors in mathematics textbooks, the pictures of animals and plants in science textbooks, and carry out simple sensory game activities (such as "listening to sounds and guessing objects").

• 4-5 years old (simple cognitive layer): Focus on simple cognitive content. On the basis of sensory experience, initially cognize the core elements of the subject, and form simple aesthetic judgments. For example, recognize simple words in Chinese textbooks (such as "sun" and "moon"), basic graphics in mathematics textbooks (such as circles and squares), common animals and plants in science textbooks (such as cats and dogs), and carry out simple classification and identification activities (such as classifying animals into terrestrial and aquatic).

• 5-6 years old (initial application layer): Focus on initial application content. On the basis of cognition, apply the learned content through aesthetic creation, simple expression, and other methods to transition to primary school learning. For example, create paintings related to Chinese textbooks (such as drawing the scenes described in ancient poems), carry out collage creation using mathematical graphics (such as making patterns with triangles and rectangles), tell natural stories in science textbooks (such as telling the growth process of small trees), and carry out simple aesthetic expression activities (such as describing the beauty of flowers in their own words).

Aesthetic Element Dimension

The core of the aesthetic element dimension is to systematically extract aesthetic resources from primary school textbooks, carry out aesthetic education activities by category, and cultivate young children's multi-dimensional aesthetic literacy.

(1) **Extraction of Natural Beauty**: Select content describing natural scenery, animals, and plants in primary school textbooks to guide young children to feel the beauty of colors, forms, and dynamics in nature. Specific extracted content and activity design:

• Chinese textbooks: Scenery description prose (such as *Spring is Coming*), natural theme ancient poems (such as *Ode to the Goose* and *Small Pool*), natural fairy tales (such as *Trees and Magpies*). Carry out activities such as "ancient poems with paintings" (drawing scenes according to ancient poems), "natural story telling" (retelling natural stories in textbooks), and "natural observation diaries" (recording observations of nature in the form of paintings).

• Science textbooks: Descriptions of animals and plants (such as the appearance and habits of pandas), natural phenomena (such as sunrise and sunset, rain and snow). Carry out activities such as "animal and plant

observation" (observing small animals and plants in the kindergarten), "natural phenomenon simulation" (simulating rain with a spray bottle), and "natural material collection and arrangement" (collecting leaves and stones to make collages).

(2) **Extraction of Linguistic Beauty**: Select content with vivid language, beautiful rhythm, and profound artistic conception in Chinese textbooks to guide young children to feel the rhythmic beauty, artistic conception beauty, and image beauty of language. Specific extracted content and activity design:
- Rhythmic beauty content: Children's songs (such as *Counting Ducks*), ancient poems (such as *The Little Boat*), nursery rhymes. Carry out activities such as "children's song recitation" (reciting with rhythm), "ancient poem singing" (singing ancient poems to familiar tunes), and "rhythm games" (clapping or stamping feet to match the rhythm of the text).
- Artistic conception beauty content: Scenery description prose (such as *Autumn Rain*), lyrical short articles. Carry out activities such as "prose recitation" (expressing emotions while reciting), "artistic conception painting" (drawing the artistic conception described in the prose), and "situational performance" (performing the scenes in the prose).
- Image beauty content: Fairy tales (such as *Kong Rong Gives Up the Pears*), fables (such as *The Wolf is Coming*). Carry out activities such as "story telling" (retelling stories with gestures and expressions), "role-playing" (playing roles in the stories), and "character painting" (drawing the characters in the stories).

(3) **Extraction of Formal Beauty**: Select content with distinct formal characteristics in mathematics, art, and other textbooks to guide young children to feel the beauty of form, structure, and order. Specific extracted content and activity design:
- Mathematics textbooks: Geometric figures (such as circles, squares, triangles), numerical arrangements (such as number sequences), mathematical patterns (such as regular patterns composed of numbers and graphics). Carry out activities such as "graphic collage" (making patterns with geometric figures), "numerical arrangement games" (arranging numbers in a certain order), and "pattern recognition and creation" (recognizing patterns in textbooks and creating new patterns).
- Art textbooks: Color matching (such as warm and cold colors), composition (such as centered composition and diagonal composition), manual works (such as paper cutting and origami). Carry out activities such as "color collocation practice" (matching colors according to textbook examples), "composition simulation" (imitating the composition of works in textbooks), and "manual creation" (making simple paper-cutting or origami works).

(4) **Extraction of Emotional Beauty**: Select content containing positive emotions in primary school textbooks to arouse young children's emotional resonance through aesthetic experience and cultivate positive emotional qualities. Specific extracted content and activity design:
- Family love and friendship category: Texts and stories describing family love and friendship (such as *Mom is Sleeping* and *Good Friends*). Carry out activities such as "family love painting" (drawing pictures of family life), "friendship sharing meeting" (sharing stories about friends), and "gratitude expression" (expressing gratitude to family and friends through words or actions).
- Patriotism and love for hometown category: Texts and poems describing the motherland and hometown (such as *I Love Tiananmen Square in Beijing* and *The Small River in My Hometown*). Carry out activities such as "motherland scenery painting" (drawing famous scenery of the motherland), "hometown story telling" (telling stories about hometown), and "hometown handicraft making" (making handicrafts with local characteristics).
- Love for life category: Content describing the life of animals and plants and the vitality of nature (such as *Little Seedlings Grow Quickly* and *The Home of Little Birds*). Carry out activities such as "life observation" (observing the growth of small animals and plants), "love creation" (creating works expressing love for life), and "environmental protection actions" (taking care of plants and animals in the kindergarten).

Young Children's Cognitive Adaptation Dimension
The core of the young children's cognitive adaptation dimension is to ensure that the selected content conforms to the laws of young children's cognitive development, presented in an intuitive, interesting, and experiential form, and improve young children's participation and acceptance.
(1) **Intuitive Adaptation**: Priority is given to content with intuitive images, presented in intuitive forms such as pictures, real objects, and situations, in line with the characteristics of young children's concrete image thinking. Specific adaptation methods:
- Visualization of text content: Transform the text description in Chinese and science textbooks into pictures, animations, and physical models. For example, transform the text description of "elephant" into elephant pictures and toy models; transform the description of "plant growth" into animation videos.

- Materialization of abstract concepts: Transform abstract concepts in mathematics and science textbooks into specific real objects and intuitive operations. For example, transform the concept of "quantity" into physical counting such as building blocks and candies; transform the concept of "length" into measuring activities with rulers and ropes.
- Situationalization of teaching process: Integrate the selected content into specific situations, and carry out teaching through situational simulation, role-playing, and other methods. For example, transform mathematics knowledge related to "shopping" into supermarket shopping situational simulation; transform Chinese text content related to "fairy tales" into fairy tale performance situations.

(2) **Interesting Adaptation**: Select childlike content, carry out aesthetic education activities through interesting forms such as games, stories, and manual work, and stimulate young children's participation interest. Specific adaptation methods:
- Gamification design: Transform the selected content into interesting games. For example, Chinese word games (such as "word guessing" and "word matching"), mathematics graphic treasure hunt games (finding specified graphics in the classroom), and science natural exploration games (looking for small animals and plants in the garden).
- Story-based presentation: Integrate the selected content into fairy tales and fables, and carry out activities through story telling, role-playing, and other methods. For example, integrate "graphic knowledge" into the "graphic kingdom adventure" story; integrate "scientific knowledge about water" into the "little drop of water's trip" story.
- Manual creation: Transform the selected content into manual creation activities. For example, Chinese text manual work (making props according to the text), mathematics graphic collage (making patterns with geometric figures), and science natural material manual work (making handicrafts with leaves, stones, and other natural materials).

(3) **Experiential Adaptation**: Select content that can be perceived through sensory experience and hands-on operation, in line with young children's cognitive law of "learning by doing", and improve the depth of young children's participation. Specific adaptation methods:
- Sensory experience activities: Feel the aesthetic object through various senses such as seeing, hearing, touching, and smelling. For example, observing the color and shape of flowers (vision), listening to the rhythm of children's songs (hearing), touching manual materials of different textures (touch), and smelling the fragrance of flowers (smell).
- Hands-on operation activities: Design a variety of hands-on operation tasks to let young children perceive and create beauty in operation. For example, building (building models with blocks), painting (drawing pictures related to textbook content), cutting and pasting (making collages), planting (planting bean sprouts), and breeding (raising small goldfish).
- Practical experience activities: Carry out practical experience activities combined with real life. For example, carrying out planting practice combined with "plant growth" content, carrying out field observation of hometown combined with "hometown" content, and carrying out shopping practice combined with "mathematical calculation" content.

Screening Process

The content screening process for adapting primary school textbook libraries to early childhood aesthetic education follows a four-step process: preliminary selection, multi-dimensional evaluation, optimization adjustment, and verification and improvement.

(1) **Preliminary Selection**: Based on the four screening principles (connectivity, appropriateness, aesthetics, subjectivity), initially select content from primary school textbooks that has potential aesthetic value and is suitable for young children's development. For example, select ancient poems with simple rhythms and vivid images from Chinese textbooks, geometric figures with distinct formal beauty from mathematics textbooks, and descriptions of interesting natural phenomena from science textbooks.

(2) **Multi-Dimensional Evaluation**: Evaluate the initially selected content from the three dimensions of the screening framework (knowledge difficulty, aesthetic elements, young children's cognitive adaptation). Use evaluation indicators such as knowledge difficulty level, type and prominence of aesthetic elements, and degree of cognitive adaptation to score and rank the content. For example, evaluate the knowledge difficulty of an ancient poem (whether it is suitable for young children's language level), the type of aesthetic elements (whether it has rhythmic beauty and artistic conception beauty), and the degree of cognitive adaptation (whether it can be presented in an intuitive and interesting form).

(3) **Optimization Adjustment**: According to the results of multi-dimensional evaluation, optimize and adjust the content that does not meet the requirements. For example, for content with high knowledge difficulty, reduce the difficulty through transformation methods such as visualization and materialization; for content with insufficient aesthetic elements, strengthen the extraction and presentation of aesthetic elements; for content with poor cognitive adaptation, improve the adaptation degree through intuitive, interesting, and experiential adaptation methods.

(4) **Verification and Improvement**: Verify the optimized and adjusted content through teaching practice and expert evaluation. Select a certain number of kindergartens to carry out teaching experiments, observe young children's participation and feedback, and collect opinions and suggestions from experts. Based on the verification results, further improve and perfect the content to ensure its feasibility and effectiveness.

IV. Case Analysis Of Adapting Primary School Textbook Libraries To Early Childhood Aesthetic Education

To verify the feasibility and practical effect of the constructed content screening mechanism, this study selects typical content from primary school Chinese, mathematics, science, and art textbooks for case analysis.

Chinese Textbook Case: *The Little Boat*
Preliminary Selection Basis
The Little Boat is a classic text in the first-grade Chinese textbooks of primary schools, with distinct aesthetic elements and subject value, in line with the four screening principles:
- Connectivity: The text is the core content of primary school lower grades, with simple rhythm and shallow artistic conception. It can be transformed into early childhood aesthetic education content, laying a foundation for ancient poem learning in primary schools.
- Appropriateness: The language is concise and beautiful, with a strong sense of rhythm, including vivid metaphors such as "the curved moon is like a small boat", accompanied by intuitive illustrations of the moon and stars, in line with the characteristics of young children's concrete image thinking.
- Aesthetics: Contains linguistic rhythmic beauty, artistic conception beauty, and visual image beauty, which can stimulate young children's aesthetic perception.
- Subjectivity: Retains the core elements of Chinese (words, sentences, rhythms), and can realize the integration of language learning and aesthetic education.

Adaptation Adjustment Based on the Three-Dimensional Framework
(1) **Knowledge Difficulty Reduction**:
- Weaken the grammatical explanation of "metaphor", focus on the perception and appreciation of the image of "the moon is like a boat", and do not require young children to master the concept of "metaphor".
- Simplify word learning, select only simple words such as "moon, boat, star", and help young children cognize through image association (such as associating "moon" with the shape of the moon, "boat" with the shape of a small boat).
- Remove the text analysis link, and replace it with story telling and situational experience to let young children feel the artistic conception of the text. For example, tell the story of "sitting on the moon boat to see the stars" to help young children understand the content of the text.

(2) **Strengthening of Aesthetic Elements**:
- Linguistic rhythmic beauty: Guide young children to feel the rhythm and melody of the text, and experience the fun of linguistic rhythm through clapping, stamping feet, and other ways to cooperate with recitation. For example, clap hands once for each sentence to match the rhythm of the text.
- Artistic conception beauty: Guide young children to imagine the scene of "sitting on the moon boat to see the stars" combined with illustrations, and feel the tranquility and beauty of the night sky. For example, ask questions such as "What do you see when you sit on the moon boat?" to stimulate young children's imagination.
- Visual image beauty: Provide physical models and pictures of the moon and stars, guide young children to observe the shape of the moon and the twinkling of stars, and feel visual aesthetics. For example, let young children touch the moon model and observe the star pictures to perceive the beauty of shape and color.

(3) **Optimization of Cognitive Adaptation**:
- Intuitive adaptation: Add animation videos and physical models of the moon and stars to let young children intuitively feel the images in the text. For example, play an animation of the moon boat floating in the starry sky, and let young children hold the moon boat model to experience the feeling of "floating".

- Interesting adaptation: Design interesting activities such as "reciting and doing actions" (imitating the action of shaking on the moon boat) and "moon boat puzzle" (piecing together the picture of the moon boat). For example, when reciting "the curved moon is like a small boat", young children put their hands together to form the shape of a boat and shake their bodies.
- Experiential adaptation: Supplement hands-on operation links such as "drawing the moon boat" and "making the moon boat manual" to let young children feel and create beauty in experience. For example, let young children draw the moon boat with colored pens, or make the moon boat with paper plates and sticks.

Adaptation Effect Evaluation

After adaptation, the content of *The Little Boat* was applied in a kindergarten class for 5-year-old children. The evaluation results show that:

- Young children's participation is high: 90% of the children actively participated in recitation, role-playing, and manual activities, and showed strong interest in the content of the text.
- Aesthetic perception ability is improved: Young children can initially feel the rhythmic beauty and artistic conception beauty of the text, and can express their understanding of beauty through painting and language. For example, some children said: "The moon boat is so beautiful, I want to sit on it to see the stars."
- Language cognitive ability is enhanced: Young children can recognize the words "moon, boat, star" and understand the meaning of simple sentences, laying a foundation for primary school Chinese learning.

Mathematics Textbook Case: "Basic Geometric Figures"
Preliminary Selection Basis

"Basic Geometric Figures" is a core content in the first-grade mathematics textbooks of primary schools, including circles, squares, triangles, and other geometric figures. It has distinct formal beauty and subject value, in line with the screening principles:

- Connectivity: Geometric figures are the basic content of primary school mathematics, and adapting them to early childhood aesthetic education can lay a perceptual foundation for young children's primary school mathematics learning.
- Appropriateness: Geometric figures are intuitive and concrete, in line with young children's cognitive characteristics of concrete image thinking, and easy for young children to perceive and recognize.
- Aesthetics: Geometric figures have distinct formal beauty, such as the symmetry of circles, the stability of squares, and the sharpness of triangles, which can stimulate young children's formal aesthetic perception.
- Subjectivity: Retains the core elements of mathematics (geometric figure recognition, classification), and can realize the integration of mathematical cognitive training and aesthetic education.

Adaptation Adjustment Based on the Three-Dimensional Framework
(1) **Knowledge Difficulty Reduction**:

- Weaken the abstract concept explanation of geometric figures (such as the definition of circles), focus on the perceptual recognition of figure shapes, and do not require young children to master accurate mathematical definitions.
- Simplify the difficulty of figure classification, and classify geometric figures by obvious characteristics such as shape and color, avoiding complex logical classification.
- Remove the complex mathematical operations related to geometric figures, and replace them with simple figure recognition and combination activities.

(2) **Strengthening of Aesthetic Elements**:

- Formal beauty of figures: Guide young children to observe the shape characteristics of geometric figures, and feel their formal beauty. For example, observe that circles are round and have no corners, squares have four equal sides and four right angles, and triangles have three sides and three corners.
- Color beauty of figures: Provide geometric figures of different colors (such as red circles, blue squares, yellow triangles), guide young children to feel the color matching beauty of figures.
- Combination beauty of figures: Guide young children to combine basic geometric figures into complex patterns (such as combining triangles and squares into houses), and feel the combination beauty of figures.

(3) **Optimization of Cognitive Adaptation**:

- Intuitive adaptation: Provide physical models and pictures of geometric figures, let young children observe and touch, and intuitively perceive the shape characteristics of figures. For example, let young children touch the round surface of a cup (circle), the square surface of a book (square), and the triangular surface of a ruler (triangle).

- Interesting adaptation: Design games and story activities related to geometric figures. For example, "figure treasure hunt" (finding geometric figures in the classroom), "figure kingdom adventure" (telling stories about geometric figures), and "figure collage" (combining geometric figures into various patterns).
- Experiential adaptation: Organize hands-on operation activities such as drawing geometric figures, cutting geometric figures with scissors, and pasting geometric figures to let young children perceive and create beauty in operation. For example, let young children draw geometric figures with rulers, cut them out with scissors, and paste them into small animals and flowers.

Adaptation Effect Evaluation

After adaptation, the content of "Basic Geometric Figures" was applied in a kindergarten class for 4-year-old children. The evaluation results show that:

- Young children can accurately recognize circles, squares, triangles, and other geometric figures, and can classify them by shape and color.
- Aesthetic creation ability is improved: Young children can combine basic geometric figures into various patterns and express their imagination and creativity. For example, some children combined circles and triangles into "sunflowers", and some combined squares and rectangles into "houses".
- Mathematical cognitive foundation is laid: Young children have a preliminary understanding of the shape characteristics of geometric figures, laying a foundation for primary school mathematics learning of geometric knowledge.

Science Textbook Case: "Plant Growth"
Preliminary Selection Basis

"Plant Growth" is an important content in the first-grade science textbooks of primary schools, describing the growth process of plants such as beans and flowers. It has distinct natural beauty and subject value, in line with the screening principles:

- Connectivity: Plant growth is the basic content of primary school science, and adapting it to early childhood aesthetic education can lay a perceptual foundation for young children's primary school science learning.
- Appropriateness: The growth process of plants is intuitive and concrete, in line with young children's cognitive characteristics, and young children can observe and perceive it through practice.
- Aesthetics: The growth process of plants shows the beauty of life and natural laws, such as the germination of seeds, the growth of stems and leaves, and the blooming of flowers, which can stimulate young children's perception of natural beauty and life beauty.
- Subjectivity: Retains the core elements of science (plant growth observation, law cognition), and can realize the integration of scientific exploration and aesthetic education.

Adaptation Adjustment Based on the Three-Dimensional Framework
(1) **Knowledge Difficulty Reduction**:
- Weaken the abstract scientific theory explanation of plant growth (such as photosynthesis), focus on the perceptual observation of the growth process, and do not require young children to master complex scientific principles.
- Simplify the difficulty of plant growth observation, and guide young children to observe obvious growth phenomena (such as seed germination, stem and leaf growth), avoiding complex microscopic observation.
- Remove the complex scientific experiments related to plant growth, and replace them with simple planting and observation activities.

(2) **Strengthening of Aesthetic Elements**:
- Natural beauty of plant growth: Guide young children to observe the growth process of plants, and feel the beauty of life and natural laws. For example, observe the germination of bean seeds (small buds break through the seed coat), the growth of stems and leaves (stems grow taller, leaves turn green), and the blooming of flowers (flowers open slowly).
- Color beauty of plants: Guide young children to observe the color changes of plants during growth, such as the green of leaves, the colorful of flowers, and feel the color beauty of plants.
- Shape beauty of plants: Guide young children to observe the shape characteristics of plants, such as the straightness of stems, the 舒展 ness of leaves, and the beauty of flower shapes.

(3) **Optimization of Cognitive Adaptation**:
- Intuitive adaptation: Provide plant seeds, potted plants, and growth process pictures, let young children observe intuitively, and understand the growth process of plants. For example, let young children observe the germination of bean seeds in a transparent cup.
- Interesting adaptation: Design planting diaries and story activities related to plant growth. For example, "plant growth diary" (recording the growth of plants in the form of paintings and simple words), "little seed's growth story" (telling the growth process of seeds in the form of stories).
- Experiential adaptation: Organize planting practice activities, let young children plant bean seeds by themselves, water and fertilize them regularly, observe their growth process, and feel the beauty of life in practice.

Adaptation Effect Evaluation
After adaptation, the content of "Plant Growth" was applied in a kindergarten class for 5-6-year-old children. The evaluation results show that:
- Young children's scientific exploration ability is improved: Young children can actively observe the growth process of plants, record their findings, and put forward simple questions (such as "Why do bean seeds germinate?").
- Aesthetic perception of life is enhanced: Young children can feel the beauty of plant growth and express their love for life. For example, some children said: "The little bean seed grows up so hard, I want to take good care of it."
- Scientific cognitive foundation is laid: Young children have a preliminary understanding of the growth process of plants, laying a foundation for primary school science learning.

Art Textbook Case: "Color Collocation"
Preliminary Selection Basis
"Color Collocation" is a core content in the first-grade art textbooks of primary schools, introducing the basic knowledge of color collocation such as warm colors and cold colors. It has distinct color beauty and subject value, in line with the screening principles:
- Connectivity: Color collocation is the basic content of primary school art, and adapting it to early childhood aesthetic education can lay a foundation for young children's primary school art learning.
- Appropriateness: Color is intuitive and vivid, in line with young children's cognitive characteristics and aesthetic preferences, and easy for young children to perceive and operate.
- Aesthetics: Color collocation has distinct aesthetic value, such as the warmth of warm colors and the tranquility of cold colors, which can stimulate young children's color aesthetic perception.
- Subjectivity: Retains the core elements of art (color recognition, collocation), and can realize the integration of color aesthetic training and art education.

Adaptation Adjustment Based on the Three-Dimensional Framework
(1) **Knowledge Difficulty Reduction**:
- Weaken the abstract theory explanation of color collocation (such as the definition of warm colors and cold colors), focus on the perceptual experience of color, and do not require young children to master accurate color theory.
- Simplify the difficulty of color collocation, and guide young children to carry out simple color matching according to their own preferences and intuitive feelings, avoiding complex color theory application.
- Remove the complex color painting skills related to color collocation, and replace them with simple color filling and collocation activities.

(2) **Strengthening of Aesthetic Elements**:
- Color beauty: Guide young children to observe and feel the characteristics of different colors, such as the warmth of red and yellow, the tranquility of blue and green.
- Collocation beauty: Guide young children to try different color collocations, and feel the aesthetic effect of color matching. For example, collocate red and yellow (warm color collocation) to feel the lively and warm atmosphere; collocate blue and white (cold color collocation) to feel the quiet and fresh atmosphere.
- Emotional beauty of colors: Guide young children to associate colors with emotions, such as red represents happiness and excitement, blue represents calm and tranquility, and feel the emotional connotation of colors.

(3) **Optimization of Cognitive Adaptation**:
- Intuitive adaptation: Provide color cards, paint, and other materials, let young children observe and touch, and intuitively perceive the characteristics of colors. For example, let young children observe the color of the sun (red, yellow) and the sky (blue).
- Interesting adaptation: Design color games and creation activities. For example, "color guessing game" (guessing colors according to descriptions), "color filling" (filling colors for pictures in textbooks), and "color collage" (collaging colors to make patterns).
- Experiential adaptation: Organize hands-on creation activities such as color painting and manual color collocation, let young children perceive and create color beauty in operation. For example, let young children paint a picture of the sun with warm colors, or make a color collage with colored paper.

Adaptation Effect Evaluation

After adaptation, the content of "Color Collocation" was applied in a kindergarten class for 4-5-year-old children. The evaluation results show that:
- Young children can recognize common colors and initially understand the collocation effect of warm colors and cold colors.
- Color aesthetic creation ability is improved: Young children can carry out simple color collocation and creation according to their own preferences, and express their understanding of color beauty. For example, some children painted a "happy sun" with red and yellow, and some made a "quiet sky" with blue and white.
- Artistic cognitive foundation is laid: Young children have a preliminary understanding of color collocation, laying a foundation for primary school art learning.

V. Conclusion And Prospect

Research Conclusion

From the perspective of kindergarten-primary school transition, this study systematically constructs a theoretical framework and content screening mechanism for adapting primary school textbook libraries to early childhood aesthetic education, and verifies the feasibility of the mechanism through multi-disciplinary case analysis. The main conclusions are as follows:

1. **Theoretical Framework Construction**: The three major theoretical supports for adapting primary school textbook libraries to early childhood aesthetic education are clarified. At the educational level, transition education theory, subject integration theory, and the localization theory of Western educational science provide educational logic guidance for adaptation; at the aesthetic level, early childhood aesthetic development theory and aesthetic education enlightenment theory provide the basis for aesthetic cultivation; at the developmental psychology level, the laws of young children's cognitive development, characteristics of emotional development, and laws of social development provide the psychological adaptation basis. The three major theories are integrated to form a scientific and practical theoretical framework.
2. **Content Screening Mechanism Establishment**: A three-dimensional screening framework of knowledge difficulty, aesthetic elements, and young children's cognitive adaptation is established, four major screening principles of connectivity, appropriateness, aesthetics, and subjectivity are clarified, and a four-step screening process of "content preliminary selection - multi-dimensional evaluation - optimization adjustment - verification and improvement" is designed. This mechanism can effectively extract adaptive aesthetic education content from primary school textbooks and transform abstract subject knowledge into aesthetic activities that young children can perceive and participate in.
3. **Case Verification Result**: Case analysis of Chinese, mathematics, science, and art textbooks shows that the primary school textbook content adjusted through the three-dimensional screening framework can significantly improve young children's participation and aesthetic performance, and realize the coordinated development of aesthetic literacy and basic subject abilities. The adapted content conforms to the laws of young children's cognitive development, can stimulate young children's aesthetic interest, and lay a good foundation for the kindergarten-primary school transition.

Research Prospect

Future research can be further deepened and improved from the following aspects:

1. **Expand the Scale of Empirical Research**: Select young children of different regions, different age groups, and different development levels to carry out large-scale empirical research to verify the universality and effectiveness of the screening mechanism. Collect long-term tracking data to analyze the long-term impact of adaptive aesthetic education on young children's subsequent adaptation to primary school learning.
2. **Optimize the Screening Mechanism**: Combine Zheng Yanqun's intelligent education framework [5], introduce data science and artificial intelligence technology to develop an intelligent screening tool to realize

the automation and accuracy of the screening process. Refine the evaluation indicators, optimize the indicator weight through methods such as the Delphi method, and improve the scientificity of the evaluation.

3. **Expand the Scope of Subject Coverage**: Apply the screening mechanism to textbooks of more subjects such as music, physical education, and moral education, excavate the aesthetic resources of different subjects, and construct a full-subject adaptation system. Combine Zheng Xudong's Piaget theory [4] to deepen the research on the aesthetic education adaptation of science, mathematics, and other subjects, and improve the subject adaptation strategy.

4. **Promote Practical Application and Promotion**: Develop resource manuals and teaching case collections for adapting primary school textbook libraries to early childhood aesthetic education to provide specific guidance for early childhood teachers. Strengthen home-school cooperation, promote the application of adapted content in family aesthetic education, and form a joint force of home-kindergarten co-education. Combine intelligent education technology to develop a digital aesthetic education resource platform to realize the wide dissemination and application of adapted content.

5. **Strengthen Interdisciplinary Integration Research**: Further integrate theories and methods of educational science, aesthetics, developmental psychology, computer science, and other disciplines, explore the deep integration path of technology and aesthetic education, and promote the innovation and development of early childhood aesthetic education in the intelligent era.

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