Research on the Application of Computer Technology in Art Education

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Abstract. We spend most of our time wanting a child with good grades and ignore the need for their all-round development of moral, intellectual, physical, social and aesthetic development, which indirectly causes most people to misunderstand and prejudice against children's art education, so that children's art education is not given enough importance and its rightful place. Art education was once too stereotypical for children, and with the help of computer technology today, art education may take on a new look. Based on this, this paper discusses the application of computer technology in art education.

Keywords: Computer Technology, Fine Arts Education, Applied Strategies

1. Introduction

After many generations of efforts, we are still exploring. In the long-term practice of children's art teaching, through extensive discussions with parents and contact with children of different ages, we found that when we communicate with children, we can explain beauty to them from a drawing paper to a broader perspective. When we talk to children, we can explain beauty to them in a broader perspective, and beauty can be expanded from a narrow understanding to a broader scope, which is very beneficial to children's thinking and imagination. Art is a very important subject for children to realize their artistic potential and develop comprehensive abilities, such as observation, concentration, thinking, expression, creative thinking and self-confidence.

2. Advantages of using computer technology in art teaching activities

First, cultivate a way of thinking. Spontaneous art creation is gorgeous but very short-lived, and can easily disappear into obscurity once it is not valued or lost guidance. Computer applications can three-dimensionally and intuitively show the beauty of nature and humanity to, and cultivate a beautiful mind surrounded by beauty. Their creativity and expressiveness are stimulated through the appreciation and
creation of art. The positive and positive cultivation of thinking and personality during these periods comes from their own experience and works in the long run for their future growth. For example, forming different hand shadows on the wall with different gestures is very effective in stimulating the imagination and enhancing creativity. Another example is showing the painting of the Virgin and the Son and explaining the legend behind the painting, so that children can feel the beauty of kinship and add to their education [1,2].

Secondly, to increase interest in learning. As we all know, without interest in learning, there is no desire to learn. Therefore, in order to do a good job in art education, not only do we need to teach the corresponding knowledge and skills, but we also need to change the teaching methods and environment to enhance the interest in learning. The boring environment and uninteresting atmosphere of traditional teaching are already far from meeting the current physical and psychological needs, and cannot fully utilize and explore the potential of children. Computer applications with multiple visual and auditory stimuli can help children feel the beauty of art while attracting interest and attention, and thus create expressions based on embodiment. For example, the popular "Pleasure" and "Bear" can be introduced into the classroom to help children imitate and draw small animals [3].

Third, expand imaginative skills. When discussing genius, Albert Einstein emphasized that genius comes from 99% hard work and 1% imaginative inspiration, and this 1% is crucial. Modern education pays more and more attention to multi-faceted stimulation of brain development, and under the condition of abundant teaching information, advanced computer technology expands teaching methods to express vivid and distinctive images of objects, broaden children's vision and imagination through dual stimulation of audio and visual, and experience the magical transformation of concrete and abstract, simple and complex. For example, showing the interactive images of mother and child in the life of an orangutan group can help children to perceive mother's love and enhance their knowledge of their mother.

3. Strategies for the application of computers in art teaching

3.1. Appropriately do some technical processing of art works

Modern computer technology can do a variety of flexible processing and modification of pictures, such as the familiar Photoshop software, it can do shape cutting, color adjustment, light effect repair and other functions, so that the art works that are not perfect have been greatly improved, so that people can enjoy. However, everything has its advantages and disadvantages, technical processing is necessary, but it should not be overdeveloped or dependent. For example, in many cases, the shapes of objects in pictures are overly retouched and distorted, which is not beneficial to the viewer and becomes a waste of time. Excessive use of technical modifications may form a negative psychological implication, such as the convenience of drawing software may make the hand-drawn resistance, and then the efficient and versatile retouching software may lead to more and more arbitrary and rough hand-drawn level reduction. These are very unfavorable to the future of art creation. For example, ink and wash painting, oil and watercolor painting, the essence of these types of paintings, their historical origins, aesthetic value and skill difficulty, cultural heritage are not comparable to computer graphics. Therefore, we support the use of auxiliary means, but remember not to over-rely and overwhelm.

3.2. Using computer technology to participate in the appreciation and creation of artworks
The use of computer technology is great for stimulating the development of multiple senses. For example, you can limit the magnification of pictures to let children understand a work from a broader and more detailed perspective, or use changes in light and shade color differences to perceive the subtle layout of masterpieces colored by famous artists. You can also play audio and video materials to supplement the stories behind the paintings, so that children can have a comprehensive understanding of the works from humanities to techniques. The multi-angle presentation of children's works through the computer will also stimulate children's desire for creativity and expression and improve their painting skills. Another example is 3D modeling, which transforms the presentation from static partial fragments to dynamic and coherent movements in a way that is unimaginable in traditional teaching. However, the developmental application of technology is still inseparable from the foundation traditional composition layout composition, perspective angle, and color intensity. Without these roots, it is difficult for the tree of art development to be stable and lose its spirituality [4,5].

3.3. Use computer technology to effectively integrate art with other knowledge

Targeted art education is not only limited to teaching children the skills of drawing, but also helping them to expand their knowledge and sense experience of a variety of knowledge. Therefore, education can use computer technology to skillfully combine multiple disciplines or cross-disciplinary knowledge. For example, when teaching children to draw the Earth, the Moon, and the Sun, computer technology can use 3D perspectives to visualize the size, color, position, and other information between the three. With light and shadow sound effects to transform their positions, children can also be taught about the causes of solar and lunar eclipses to teach them about geography. While continuing to attract children's attention and maintain a high level of interest, it further penetrates more comprehensive and rich knowledge and experiences in a vivid way [6].

3.4. Use computer drawing tools to create works of art

After completing the corresponding teaching plan, helping children to build up the basic knowledge of drawing and ensuring that they can use it proficiently, teachers can also teach children to create works with computer drawing tools according to the current needs of the society. However, as mentioned above, computer technology, however convenient and developed, cannot replace traditional art teaching. The basic drawing skills required by children must be imitated stroke by stroke and practiced repeatedly to be mastered. There is no doubt about the role of computers as an auxiliary teaching tool and teaching method. But it is only with the support of solid basic skills that one can better utilize computer technology to draw works. The relationship between the two should not be reversed; computer technology support and computer technology creation are completely different.

4. Stages of computer technology in art teaching
4.1. **Introduction stage: create a context to attract students to actively explore new knowledge.**

Students' art education is an integral part of students' comprehensive development education and a highly creative activity, which means that creative activities in the field of art stimulate young children to learn and create independently, to express their knowledge and feelings about things with their own works, so as to cultivate students' abilities such as independent innovation and lay the foundation for cultivating an independent and sound personality in young children. In the process of art activities, students can realize their wishes through their own emotions and imagination, and can more fully utilize their imagination and creativity.

Students' curiosity is cultivated by teachers. The teacher's sensible curiosity is an important guarantee that students will always learn something new, will always be fresh to the teacher, and will continue to explore the world as the teacher guides them to take an extra interest in manipulative activities. At the beginning of an art lesson, the introduction session, the teaching book should be carefully designed to arouse students' curiosity and stimulate a strong desire to know. Therefore, in the introduction session, teachers should use information technology to create a course introduction situation based on the teaching content and the psychological characteristics of students in order to attract students to actively explore new knowledge [7].

4.2. **Focus: Reproduce the situation so that students can actively and positively grasp the new knowledge**

We should pay attention to students' natural, happy and creative learning in art education, and integrate knowledge and skill education, emotional education and aesthetic education organically. In the specific guidance, we should start from the physical and mental development characteristics of EYD L, understand students' behavior, bring their potential into play, and immerse them in the joy of bold imagination and creativity.
There are also key issues that need to be tackled in the student art classroom. In order to enable EYDL to fully grasp these issues, teachers can refer to the teaching content to make use of information technology tools to make the situation reproduce so that students can fully understand the key points in teaching to achieve the teaching results.

4.3. **Instructional difficulties: interpreting situations so that students can actively consolidate new knowledge**

The process of drawing is a way for students to use what they have learned to develop their art thinking and to give feedback on what they have learned. Through this process, teachers are able to understand how well students have mastered their new knowledge. Therefore, in the deeper stage of students' art teaching, it is necessary for teachers to deeply grasp students' psychology, such as curious and active, competitive and so on, and at the same time make full use of information technology to interpret the situation, highlight the difficult part of the instruction, further inspire students, make them have a strong desire to draw and deepen their mastery of drawing skills in the process of making creations.

4.4. **Encourage extension: sublimating the situation so that students actively and positively reinforce new knowledge**

The final part of an art lesson, after attracting students' interest, guiding creation, and then consolidating new knowledge, is the exhibition and evaluation stage of students' creative works. Not only can the evaluation of students' artwork enhance their confidence in drawing, but it also enables them to further improve their aesthetic skills [8,9].

In the specific design of the assessment, teachers should plan and target their work, and at the same time, they should not lack fun. It is important to understand that for younger children, anecdotes are the most important point that can attract their attention. In the assessment, children can showcase their talents and build their confidence and sense of accomplishment when they receive praise from the teacher and the children. And to better display the work, modern information technology can be applied to it, such as physical projectors and digital cameras. They can help students to observe more clearly and teachers can comment more visually to sublimate the situation.

5. **The application of computer technology in art teaching**
5.1.  **Strengthen the application of presentation in the process of art teaching**

The presentation not only has text and pictures, but also contains sound, hyperlinks, animation settings and other functions. Teachers can combine the actual art teaching content to make relevant settings, so that students can understand the creation process, painting techniques, and the background and biography of the author of the work more vividly and intuitively. In the process of watching the presentation, students can also better understand the creation method and inspiration, so that students can actively participate in the actual art learning and creation.

For example, in the teaching process of "Decorate My Room," in order to enable students to master the characteristics of pencil and pastel drawings, teachers can collect a pencil home decoration drawing and a pencil pastel furniture decoration drawing, and then show them in the classroom using the presentation. The teacher will ask the students to analyze and discuss in small groups so that they can better feel and grasp the difference between pencil pastels and pencil drawings. The teacher then introduces the concept of pencil pastels in a timely manner. Then, the teacher uses the presentation to show the students different styles of pencil pastels such as landscape, home, and architecture. This will not only enable students to have a deeper understanding and knowledge of the artistic effects of pencil pastels, but also to maximize their horizons. The teacher then uses other functions in the presentation to talk about the rich colors of different drawings, the expression of light and darkness, and the treatment of light and darkness painting in detail. Finally, the teacher allows students to choose their favorite painting theme and then complete the painting in pencil light color [10].

5.2.  **Strengthen the application of multimedia in the art teaching process**

In the traditional art appreciation class, most teachers collect pictures related to the teaching content beforehand, and then use the blackboard and chalk to tell students in the classroom. This kind of boring and single way is often difficult to stimulate students' interest in art learning, which will make the overall art classroom teaching effect greatly reduced. Therefore, teachers can make full use of multimedia
teaching tools to teach art. Teachers first select works or teaching resources related to the teaching theme on the Internet and combine them with background music elements to make a relevant display video. This will not only create a strong artistic atmosphere and teaching context for art teaching, but also make students interested in the learning content.

For example, in the teaching process of "The glorious history and cultural value of Chinese art", teachers can ask students to learn about the typical art works from the pre-Qin period to the two Han dynasties through pre-study or collection of materials. The teacher can then use the Internet to collect information related to painted pottery, Shang and Zhou bronzes, Qin and Han art, and jade culture, and make a complete micro-video with corresponding music. In the classroom, students can also be shown pictures of the sphinx plate, the taotie bronze knight, the terracotta warriors and horses of Qin Shi Huang, the wadang, the Han portrait of Chang'e wind and moon, the figure of the imperial dragon, the Mawangdui Western Han tomb is a silk painting, the great jade dragon, the jade warding off evil spirits, and the jade openwork carved valley pattern Changlebi. This will not only enable students to more intuitively experience the charm of China's art heirloom works, but also enable students to understand the vocal cultural value and heritage significance of China's art works in the process of inquiry and discussion.

5.3. Comprehensively strengthen the application of computer painting in the process of art teaching

The drawing software that comes with the computer system also contains relatively more functions, and teachers can make full use of these software to guide students to carry out relevant drawing exercises. For example, the drawing tools such as airbrush, pencil and brush in the drawing software are relatively simple to operate, so students can understand and master the specific operation methods faster, and then complete the creation of different works in color, shape and composition according to the theme determined by the teacher. This will not only enable students to master the basic skills of art painting, but also make their art classroom teaching achieve half the result with twice the effort. For example, in the teaching process of "Community Environmental Beautification", teachers can first ask students to independently understand the environmental conditions of the community they live in, and record the community's environmental beautification design works by taking photos or videos. The instructor then uses multimedia equipment to show students different community beautification designs in the classroom and then asks them to analyze the content, principles, and characteristics of the designs and the beautification measures used. After students understand the important factors involved in community beautification design, such as integration of the natural environment, volume, color, style, and spatial form, the teacher demonstrates the steps of graphic design to students step by step. Students then choose a light color or single line design approach that incorporates the requirements of environmental art, and use the computer to practice the relevant community landscaping graphic design [11].

6. Conclusion

Art education is oriented to all primary and secondary school students, cultivating their all-round development of morality, intellect, physique and aesthetics, broadening their horizons, stimulating their personalities, guiding them to form diversified values in life, and making them develop good psychological qualities in a relaxed and pleasant activity environment. Nowadays, with the addition of computer technology, it presents a brand new situation.
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