

**Subjects and methods:** Abstract painting is an important aspect of western modern painting and an experiment of concept visualization. For the creation psychological experience of abstract painting, because of its special principles and methods, that is, the exploration of art origin and form purification, the artistic creation of abstract painters has become an invisible psychological event. In terms of psychological experience, it is unpredictable, but all choices are controlled by the foreseeable purpose. At the same time, it is also a process of increasing, decreasing and repairing, as well as a process of answering questions. This psychological experience is also a process of "dialogue" with material media materials.

**Results:** This paper holds that the creative process of an excellent abstract painting, like great physics and mathematics, is an order imposed on chaos. The psychological experience process of creation is the psychological process of the modern artistic spirit contained in the personal subconscious perceived and excavated by the painter from his works. In plane plastic arts, abstract painting creation also obviously shows a process of "dialogue" with material media materials.

**Conclusions:** Through the external form, to achieve the core of things, let us use all our perceptual ability to absorb the internal pulse of things, and this absorption will become the bud of works in the artist. It is unconscious, so the dead matter vibrates. Further, the "inner voice" of various things does not ring in isolation, but all together.

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## OPTIMIZATION AND APPLICATION OF HIGHER MATHEMATICS TEACHING BASED ON STUDENTS' SPONTANEOUS INTEREST STRATEGY

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**Background:** Higher mathematics is an important basic subject in higher vocational colleges. It not only provides mathematical knowledge and tools required by professional courses, but also exercises students' thinking logic ability and rigorous and down-to-earth scientific spirit. With the development of the times, it has been paid more and more attention. However, with the development of China's higher education and the expansion of students in higher vocational colleges, the mathematics level of freshmen has been reduced. It is mainly manifested in: (1) students' polarization is serious and their basic knowledge is weak; (2) Students lack motivation to learn. This situation of students brings considerable difficulties to teaching, and it will be a long-standing problem. In higher education, it is not suitable to make up for this form of layered and class teaching. Only relying on reducing the difficulty of teaching is not a good solution. As a mathematics teacher who has been in the front line of teaching for a long time, I try to combine psychological theory and optimize teaching strategies, which has been well confirmed in the teaching process.

**Subjects and methods:** As an important basic subject, higher mathematics is not optimistic about the learning disabilities caused by various reasons. This paper takes the principle of psychology as the theoretical background, draws lessons from the existing teaching practice and application case experience, and is based on the actual teaching situation of Higher Mathematics in higher vocational colleges. Integrate the theoretical knowledge of psychology, optimize the teaching strategies of higher mathematics and verify the effective teaching methods from the aspects of enhancing students' motivation to learn higher mathematics, improving learning interest and how to design teaching contents.

**Results:** This paper holds that we should take interest problems as the starting point to enhance students' internal drive in learning mathematics. Establish lofty ideals and lofty aspirations, stimulate students' self-improvement drive. Provide students with the joy and hope of success and cultivate accessory drive. Psychological experiments and educational teaching practice show that the differences of students with different learning levels are mainly reflected in the different development levels of metacognition.

**Conclusions:** Cognitive learning theory holds that people's learning is actually the process of bringing the newly learned content into the psychological framework formed by previous learning according to different categories of knowledge, so as to effectively form learners' knowledge system. In the teaching process, I found that students have no interest in mathematics and lack confidence in learning. The reason is that students are difficult to understand abstract mathematical concepts, and the reason is the lack of mathematical background knowledge. What kind of historical background is the creation of a mathematical theory and the emergence of a mathematical concept in order to solve practical problems?

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## BLENDING TEACHING DESIGN OF ART BASIC COURSE IN COVID-19 BASED ON COGNITIVE LEARNING PSYCHOLOGY

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**Background:** Novel coronavirus pneumonia was affected by the new crown pneumonia in early 2020. Primary school and University in all parts of the country adopted strategies such as delay in opening and online teaching, in order to reduce cross infection between teachers and students and promote normal teaching progress. Based on the impact of the epidemic on normal teaching and scientific research, the current exploration of mixed teaching mode can be practiced and fed back in time, which will be of great benefit to the future art curriculum reform. "Hybrid" teaching was first proposed by foreign training institutions. It is a teaching mode with complementary advantages of traditional teaching and network teaching. Education not only inherits the knowledge and skills of art in its own way, but also extracts the unique educational function of art learning activities to enable people to achieve better development. Therefore, the author takes the teaching of basic art courses as the research object, and explores the painting classroom teaching from the perspective of cognitive development psychology, in order to help students improve the knowledge of basic art courses and better promote the development of cognitive ability.

**Subjects and methods:** Art basic course is an important branch of the education system. Aesthetic education plays a role of bridge and link in many disciplines. Affected by the epidemic of New Coronavirus pneumonia, schools have delayed their studies, and all kinds of courses have been taught on the Internet and online. In terms of basic art courses, in this epidemic, we can explore the "hybrid" teaching mode in many aspects, such as online teaching, offline classroom teaching, and the integration of the spirit of the times and course content embodied in the "new crown" epidemic.

**Results:** The author believes that although compared with the traditional teaching mode, mixed teaching still has some problems in the trial stage. For example, students with poor learning habits have poor autonomous learning ability, and interactive teaching is not conducive to such students' learning. In addition, the network conditions of some schools and students do not support the promotion of network teaching. However, as teachers in the "new era", we should reform and adjust in time in combination with the curriculum content and students' learning state. In teaching practice, we can choose the teaching mode that can achieve the best teaching effect according to our own actual situation.

**Conclusions:** To sum up, the author believes that the basic art course is not a subject course that simply teaches students' skills, but more an enlightening course that promotes the development of students' abilities in all aspects. In painting classroom teaching, educators should master the law of students' cognitive development and focus on different teaching priorities at different ages, so as to stimulate children's interest in painting courses.

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## RESEARCH ON CROSS-CULTURAL SOCIAL COMMUNICATION BEHAVIOR BASED ON PSYCHOLOGICAL PATH

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**Background:** When people from different cultures come together and they feel "strange" to each other, cross-cultural communication begins. In a general sense, cross-cultural communication is a social behavior that touches people's mind and expresses people's cultural psychology. The so-called cross-cultural means that people involved in communication not only rely on their own codes, habits, ideas and behavior, but also experience and understand all the relationships between each other's codes, habits, ideas and behavior. This includes all self characteristics and strangeness, identity and strangeness, diligence, easygoing and danger, and the relationship between normal things and new things that work together on people's central behavior, ideas, feelings and understanding. Therefore, the study of cross-cultural communication means that we have to take the path of psychology.

**Subjects and methods:** From the perspective of anthropology, we can grasp the special value of psychological methods in analyzing the phenomenon of cross-cultural communication. Let researchers integrate into a certain culture as "strangers" and obtain the special psychological experience of cultural exchange in participatory observation. Understand the perception and conflict of culture in daily life,