Retraction

Retraction: Research on Online Oil Painting Education Based on Computer Technology (J. Phys.: Conf. Ser. 1915 022007)

Published 9 September 2022

This article has been retracted by IOP Publishing following an allegation that raises concerns this article may have been created, manipulated, and/or sold by a commercial entity. In addition, IOP Publishing has seen no evidence that reliable peer review was conducted on this article, despite the clear standards expected of and communicated to conference organisers.

The authors of the article have been given opportunity to present evidence that they were the original and genuine creators of the work, however at the time of publication of this notice, IOP Publishing has not received any response. IOP Publishing has analysed the article and agrees there are enough indicators to cause serious doubts over the legitimacy of the work and agree this article should be retracted. The authors are encouraged to contact IOP Publishing Limited if they have any comments on this retraction.

Retraction published: 9 September 2022
Research on Online Oil Painting Education Based on Computer Technology

Guodong Yi*.

1School of art and design, Changsha Normal University, Changsha, China

*Corresponding author e-mail: changshashifan@sdsu.edu.com

Abstract. With the improvement of my country's science and technology, the development of Internet technology has gradually occupied the core position of the times, and combined with many fields, has produced one after another new technologies and development and operation models. Relying on computer technology, this paper integrates networked teaching and traditional teaching in a hybrid and organic way, and gives full play to its advantages. On the basis of analyzing the importance of computer technology to oil painting education, it analyzes the important factors of oil painting teaching. Practice has proved that this method can effectively guide students to think positively and form the enthusiasm of independent learning.

Keywords: Computer Technology, Oil Painting Teaching, Color reconstruction

1. Introduction

With the improvement of my country's science and technology, the development of Internet technology has gradually occupied the core position of the times, and combined with many fields, has produced one after another new technologies and development and operation models. Of course, the education of colleges and universities for many years is also inseparable from the Internet. After the introduction of micro-class teaching in the oil painting teaching in colleges and universities, it has aroused strong interest from teachers and students, and the learning efficiency and results are very significant [1-3]. The slogan "Let the Internet into the Country" is already familiar to the public, and the construction of online courses has also developed from colleges to rural primary schools. However, in real classrooms, even with multimedia participation in the classroom, oil painting art teaching still continues the traditional model without substantial changes [4-6]. Nowadays, the development of Internet technology has brought society into a new era, and its rapid development is bound to affect the traditional oil painting courses in colleges and universities, and bring huge changes to the teaching of oil painting courses [7-9].

"Internet +" allowed the education of colleges and universities to move from single to comprehensive, breaking the occupation of knowledge by monopoly groups, and gradually moving education from the platform to the student group. In essence, the influence of "Internet +" on oil painting teaching is mainly manifested in its influence on the oil painting information resource database [10]. The traditional oil painting course teaching is the oil painting display of the teacher's
personal preference. Most of the course content information and pictures learned by the students come from the teacher, which has greater limitations. In the context of the "Internet +" era, a global knowledge base is rapidly forming, everyone can create knowledge and share knowledge achievements, and the degree of openness and sharing of oil painting art resources has greatly increased, and these resources are rapidly spread through mobile devices. Students' access to teaching resources has become extremely convenient.

Relying on Internet technology and computer technology, this article attempts to combine networked teaching and traditional optimized teaching, so that the two complement each other in order to obtain better teaching results.

2. The importance of micro-classes to the teaching of oil painting

The rise of online micro-classes is one of the more popular learning forms recently, and it is a kind of blended learning mode. The core content of the micro-classes is the classroom teaching videos (classes fragments), and it also contains auxiliary teaching resources such as teaching design, material courseware, teaching reflections, practice tests, student feedback, and teacher comments related to the teaching theme. The teaching time of micro-classes is generally 5-8 minutes. Compared with traditional classrooms, it can improve the efficiency of students' pre-class preparation and after-class review. Micro-classes can be called micro-courses and lesson fragments. It is a good supplement and perfection for oil painting classroom teaching, and it has an important influence on oil painting teaching.

2.1. Clear teaching information

Different from the traditional single-type teaching, the teaching information of the network micro-class is clear and clear. For example, it can divide the tedious steps of oil painting into short micro-classes, and everyone can learn the main points of study before class through short videos. We can define this role as a teaching course assistant. Because of its clear information and clear themes, it helps the interaction between teachers and students in the traditional oil painting classroom and meets the needs of teachers. In the process of learning, students conduct target learning based on teaching difficulties and key points, build their own knowledge system, and greatly improve their learning efficiency.

2.2. The instructional video is short and concise

One of the important characteristics of micro-classes is that they are short and concise. Each video completes a teaching content, and each teaching content is controlled within a few minutes. It solves a key knowledge point. The content is clear and targeted. The relatively long paragraphs are only a dozen at most minute. Micro-class videos and supporting auxiliary resources are generally around 5-10M. They have a small capacity and can be easily stored on mobile devices. They are easy to find. Students can watch before and after class. At the same time, they can also view the teacher's Teaching plans and courseware, so micro-classes are a good auxiliary method for traditional oil painting classroom teaching.

Assuming that the quantity to be determined x is the mathematical expectation $E(\xi)$ of the micro-class random variable $\xi$, then $\xi$ can be randomly sampled N times according to the probability distribution function of $\xi$, and a sequence $\xi_1, \xi_2, \xi_3, \ldots, \xi_N$ of mutually independent $\xi$ values can be generated to calculate its arithmetic mean.

$$\bar{\xi} = \frac{1}{N} \sum_{i=1}^{N} \xi_i$$  \hspace{1cm} (1)

When N is sufficiently large, there is

$$P \left( \lim_{N \to \infty} \bar{\xi} = x \right) = 1$$  \hspace{1cm} (2)
From the theorem of large numbers, \( \bar{\xi} \) is an unbiased estimate of \( x \).

2.3. Reconstruction of the learning process
Generally speaking, oil painting classroom teaching in colleges and universities generally has two steps. The first step is to achieve the teaching purpose through the teacher's demonstration and students' observation. The second step is to complete by the students themselves after the teacher's demonstration. However, in real classrooms, students often have knowledge blind spots in the process of painting due to lack of teacher's guidance or inadequate guidance. The process of painting is often fleeting, and students are prone to fear of difficulties. With the use of micro-classes, teachers can conduct good demonstrations, which is conducive to the development of Qian's teaching. In the second step, the process of "student painting, teacher guidance", teachers can interact or show up to modify in the classroom, as shown in Figure 1 and 2, to help students better understand the inner spirit of oil painting, and have a good interaction and communication between teachers and students. It is more helpful to promote students to master new painting knowledge points.

![Teacher counseling flow chart](Retracted)
2.4. Color application techniques
In the creative process, the color application of freehand oil painting is divided into many different levels. Among them, there are the core colors of the visual center of the entire work, and the background colors used in a large area. In order to be orderly, the freehand oil painting will arrange the colors of different levels in a certain order in advance when using colors. That is to say, in order to create a good work, the background color and core color of the work must be determined from the beginning. Freehand oil painting presents the relationship between different colors, multiple colors, and the process of gradual changes in different levels of colors. For example, in Pan Yuliang's works, we can easily see the endless changes and boldness in the use of colors. When painting, as a female painter born in the old era of China, she condensed the delicate and delicate colors of women. The use and brushwork show a clean and neat state. She received French modern painting education, and the visual center of the picture is more prominent. Many people like her work. Throughout the history of the development of freehand oil paintings, in terms of style and creation techniques, although it has not yet formed a very mature branch of painting school, freehand oil painting has become more and more refined. In terms of color matching, it not only fits the little bit of rendering of traditional Chinese painting, The technique of fainting and superimposing also conforms to the law of perspective of Western painting, and conforms to the three-dimensional composition method of Western painting. Nowadays, in terms of composition, freehand oil painting has basically been difficult to find the traces of the three-point perspective of traditional Chinese landscape paintings. It has fully borrowed and absorbed the three-dimensional composition and central perspective techniques of classical oil paintings. In addition, because freehand oil painting inherits and retains the habit of using Chinese colors, freehand oil painting has not completely lost the characteristics of Chinese painting. In the overall rational layout, all color spatial combinations regard each color as an element, instead of expressing a pure light-dark relationship, all aspects of color together form an unbreakable network of relationships, such as: overall color structure, various colors Attributes, phenomena, configuration rules, and color and color combinations, etc. And after years of exploration, different artists have carried out diversified exploration of freehand oil painting techniques from different angles. Freehand oil painting has made great achievements. In the use of color, a group of characteristic oil painters have emerged. For example, Yan Bo, who has a deep traditional cultural foundation and received
professional oil painting education, is recognized as a painter who is good at using bright colors in the field of freehand oil painting creation. His works have a feeling of Chinese literati painting. The colors are brilliant and eye-catching; and in the selection of the topic, the young painter Duan Jianwei, who was born in the Central Plains, is good at using heavy colors and persistently adheres to the natural simplicity of today's society. His works have the feelings of the northern land, the language is straightforward and simple, through the saturation of colors, to fully express the magnificence and strength of life, presenting a historical and cultural heaviness, making people feel relaxed and refreshing; oil paintings are very pure Wang Keju, the painter of Wang Keju, is bright and vivid in the use of colors. In the layered layout, he is extremely dynamic and fascinating. From the appearance point of view, this pure color technique can make people feel the scatter perspective of the picture, the arbitrary brushwork, and the composition management arrangement, making the whole work present the indescribable oriental beauty. And we can realize that the freehand oil paintings created by these painters are all influenced by the oil painting color technique and teaching philosophy of the Academy of Fine Arts where they are located. This means that education is very important during the school painting period.

3. Tracing back to the original intention of sketching-light, color and timeliness

Although Impressionism was not the first to bring painting out of the studio, Impressionism started from the timeliness of painting and returned to the tradition of oil painting's pursuit of light, combining the physical properties of color and reflecting the pursuit of color purity.

3.1. Rooted in the pursuit of light performance tradition
The expressive tradition of pursuing light is rooted in the artist's pursuit of humanistic spiritual connotation. It does not simply express light and shadow in the relationship of sketches, and is different from the light in the relationship of sketches. As a symbol, light originated from the halo in figure paintings before the Renaissance. Since the introduction of figure paintings into landscapes, light has transformed into a metaphor that combines scenes with color perception. The landscape paintings are mainly reflected in the light penetration, thinness and harmony of light and color, all of which come from the artist's understanding of light metaphors. The reason why light carries the connotation of humanistic spirit is precisely because the transformation of light hides in the picture as a lofty and intangible idealized metaphor, which combines the artist's understanding of nature to form a new cultural meaning-hope, future. This can be reflected from the Venetian school's pursuit of the combination of light and color, to the Barbizon school's scene expressions, especially the prayers described by Miller, and to the impressionist paintings. The impressionist's performance of light is no longer restricted by metaphors, but directly combines visually perceptible light, further combining its physical properties and timeliness and transforming it into a focus on real things.

3.2. Combining scientific color physics
The physics of color is based on the physical properties of light. Since Newton analyzed the phenomenon of light dispersion, light began to combine color with the artist's color language from perceptual visual perception to rational reality. From the perspective of light dispersion, light color is caused by this. At the same time, the improvement of pigments has also brought convenient conditions for outdoor sketching. Impressionists' combination of light and color, the most typical example is Renoir's paintings, the shadows falling on the characters are reproduced in various tones and mottled blocks; and in Monet's “Rouen Cathedral” group paintings due to different periods of time. The light color displayed is different. The physical properties of color are mainly reflected in impressionist paintings as that external light is the cause of color changes, and changes with different observation positions, light conditions, time, and environmental changes.

3.3. Continuing the thinking of painting timeliness
The timeliness of painting can be traced to the analysis of the similarities and differences between poetry and painting in Lessing’s book "Laocoon." Before Impressionism, the time node selected for landscape painting was based on the climax of the development of the scene plot, with exaggerated and dramatic elements, and had a strong emotional tendency, such as Turner's "Disaster on the Sea" and Constable's "Hampstead's Rainbow." The timeliness of impression party paintings are mainly manifested in landscape works, expressing time nodes through the combination of light and color. Another example is Monet's "Rouen Cathedral" group of paintings that viewers can judge time from the difference in light color; or the two-way perception formed by the author's combination of light and color relationship based on time is an innovative thinking on the timeliness of paintings by the Impressionist.

Therefore, the impressionist's processing of the relationship between light and color is based on the subtle changes in light color caused by the instantaneity of time, combined with the tradition of light and the physical properties of color. The focus of impressionist sketching can inspire the teaching of landscape oil painting sketching.

4. The influence of "MOOC" on oil painting teaching
The teaching of oil painting courses has gone through a hundred years, and most of the traditional teaching methods are one-to-several teaching modes, at most one-to-dozens. For a special oil painting art appreciation course in colleges and universities, the large classrooms are generally full of seats, and the experts who teach the courses need to deal with dozens of people. Due to the large number of people, in order to take care of the majority, teachers cannot give detailed instructions and answer students one by one. The classroom is also difficult to interact, and the limitations of this kind of classroom are obvious. The emergence and development of "MOOC" has changed the traditional teaching form, solved some problems of traditional oil painting theory courses, and became an auxiliary "classroom" of traditional classrooms. "MOOC" is a large-scale online teaching. Unlike traditional courses, a pair of dozens or hundreds of people is different. An excellent online MOOC will attract tens of thousands of people to participate. Some MOOC websites have even more than 160,000 people online at the same time. "MOOC" are generally interest-oriented, regardless of region or country. If you want to participate, you can enter the online class through online registration. Students can talk interactively online, so that it will not affect the lectures of experts. The oil painting course can also imitate and refer to this way, so that more people can be exposed to oil painting art.

5. Conclusion
The conservativeness and closedness in the traditional oil painting education system will inevitably be eliminated with the development of the Internet. The development of "Internet +" has promoted the transformation of art education, and has also accelerated the improvement and development of traditional oil painting teaching. So that every learner is a disseminator and beneficiary of painting knowledge. Online teaching requires teachers to focus on the combination of theory and practice, which also requires teachers to use relevant theoretical knowledge flexibly in teaching, and to guide students to think positively to form the enthusiasm of autonomous learning. Generally speaking, light, color and timeliness are still the center of landscape sketching, and they are also the key points and difficulties of teaching that should be paid attention to in the course of landscape oil painting sketching.

References
[1] V Connan, Marcon M A, Mahmud F H, et al. Online education for gluten-free diet teaching: Development and usability testing of an e-learning module for children with concurrent celiac disease and type 1 diabetes[J]. Pediatric Diabetes, 2019,5(2):1-8.
[2] Napp A, Kosan J, Hoffend C, et al. Implementation of Basic life support training for school children: Online education for potential instructors? Results of a cluster randomised, controlled, non-inferiority trial[J]. Resuscitation, 2020, 152(1):90-98.
[3] Polloth B, Schwarzer S, Zipse H. Student Individuality Impacts Use and Benefits of an Online Video Library for the Organic Chemistry Laboratory[J]. Journal of Chemical Education, 2020, 97(2):328-337.

[4] Sward L B, Mekelvey S S, Pollack S L, et al. A hands-on resident umbilical cord blood educational curriculum compared to online education of post-residency obstetricians: comparison of the volume of collected cord blood units[J]. Transfusion, 2019, 69(4):190-198.

[5] Thai T, Nguyen K T, Pham T T, et al. Can combined online and face-to-face continuing medical education improve the clinical knowledge and skills of family doctors in Vietnam? A cluster randomised controlled trial[J]. Tropical Medicine & International Health, 2020, 25(4):8-14.

[6] Gaber D A, MH Shehata, Amin H A. Online TeamBased Learning Sessions as Interactive Methodologies During The Pandemic[J]. Medical Education, 2020, 54(7):34-39.

[7] PGMD Jong, Hendriks R A, Luk F, et al. Development and application of a massive open online course to deliver innovative transplant education[J]. Transplant Immunology, 2020, 4(3):119-126.

[8] Tull T J, Jackson K, Smith C H, et al. Developing an online patient education resource for topical therapy: a pilot study[J]. British Journal of Dermatology, 2020, 182(2):190-199.

[9] Jar A, Lb A, Di A, et al. The more I got, the less I need? Efficacy of Internet-based guided self-help compared to online psychoeducation for major depressive disorder[J]. Journal of Affective Disorders, 2019, 246(2):695-705.

[10] Naseri C, Mcphail S M, Haines T P, et al. Evaluation of Tailored Falls Education on Older Adults' Behavior Following Hospitalization[J]. Journal of the American Geriatrics Society, 2019, 67(9):1-10.