

## EXPLORATION AND PRACTICE OF ONLINE TEACHING QUALITY ASSURANCE FOR DESIGN ART COURSES

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### ABSTRACT

*Many countries have adopted online teaching due to the COVID-19 pandemic. How to effectively ensure the quality of online teaching has been discussed in depth in current teaching research. There are many related studies due to the characteristics of different disciplines. Design art courses are comprehensive courses that combine theory and practice, with strong practicality and interaction. However, there is limited research that explores online teaching for this type of course. This paper explores the practice of online teaching for a font design course. In view of the difficulties faced in the practice of online teaching of design art courses, such as limited time, difficulties in communication between teachers and students, lack of concentration of students, and inadequate learning evaluation, this paper proposes the online teaching principles of early intervention, multi-interaction, stimulation of interest, and emphasis on process. This includes the implementation of pre-class surveys and tasks, the conduct of various teaching activities to stimulate learning interest during class, multi-dimensional interaction and process of evaluation during and after class. This paper also further explores the path to carrying out effective online teaching to assure the quality of teaching.*

Keywords: Online teaching, teaching quality, teaching design, process evaluation.

### 1. INTRODUCTION

Online teaching is a teaching method that uses modern information technology such as the Internet and artificial intelligence to deliver lessons in an interactive manner (Morreale, 2021; Nilson, 2021). So, it is an important part of educational services. Online teaching has evolved from distance learning, mainly through recorded classrooms, to the rapid development of the MOOC (Massive Open Online Course) model (Zhu, 2022; Yousef, 2021), and then to the SPOC (Small Private Online Course) (Machwate, 2022; Hamse, 2021). SPOC was first proposed by Professor Armand Fox of UC Berkeley (Kop, 2011; Fox, 2013). In China, online teaching platforms available include Xue Tang Online, China University MOOC, Good University Online.

The issue of online teaching quality has been of concern to domestic and international research scholars, and researchers usually use different evaluation index systems to judge the quality of online teaching. Lynette Gillis proposed the E-Learning Certification Standards accreditation criteria of the Professional Council for Instructional Design and Application, which evaluated online learning from three perspectives of usability, technicality and pedagogicality, highlighting the pedagogical evaluation of online courses (Gillis, 2002). CM Stracke, based on the existing quality of MOOC methods and quality indicators literature review and analysis, proposed a reference framework (QRF) with quality indicators (Stracke & Tan, 2018). Jianian Zhang used webometrics to explore studies related to learner learning process analysis and proposed a web course evaluation method based on webometrics (Yang, 2015). Yongping Chen set several indicators in terms of course design quality, utilization quality, teaching quality, learning quality, and management quality (Chen, 2019).

Some studies have found that there are some problems with online education, such as lack of interaction between students and teachers, and between students, students are not familiar with technology when participating in online courses, and students have weak learning motivation (Rovai & Downey, 2010).

From the current situation of domestic and international research, most studies explore the issue of online teaching quality from the macro level and lack the analysis of online teaching quality assurance from the micro perspective. This paper explores the practice of online teaching of font design course as an example, proposes the online teaching principles of "early intervention, more interaction, stimulating interest, and emphasizing the process", and explores the path of online teaching effectiveness and teaching quality assurance. The research used a quasi-experimental design, implementing the proposed approach on three classes comprising 88 students who were taking the font design course.

### 2. BASIC INFORMATION ON THE COURSE

Font design course is a basic design course that sets to explore modeling theory and visual laws of text. So, it is an important part of the basic design course for visual communication majors, which mainly allows students to learn and master font design thinking and methods, master and apply the design rules of visual elements, explore the morphological structure, spatial arrangement and combination of text. The course content is divided into two parts: font application and creative font design, mainly addressing the basic design theory and application of library fonts and creative font design methods. Through the course, students can broaden their horizons, understand the development of today's typeface design, arouse aesthetic awareness of typeface design, cultivate interest in typeface design creation, master the basic theories and methods of typeface design, and view the future development of the typeface design industry and Chinese character typeface design with a broader academic perspective. The classes involved in this are Visual Communication Design Class 1, 2 and 3 in the second semester of the first year of undergraduate studies, with a total of 88 students and 30 total course hours (3 weeks).

### **3. IMPLEMENTATION OF PROPOSED TEACHING PRINCIPLES**

#### **3.1 EARLY INTERVENTION - PRE-CLASS INVESTIGATION AND PRE-CLASS WARM-UP**

There is a need to investigate the online learning conditions of students before class, be familiar with the platform, software and hardware conditions, and make preparations before class. Through the establishment of the study committee WeChat group, a thorough investigation of three classes was conducted to understand the students' habits of using online learning and communication platforms, and to understand the conditions and guarantees of students' online learning. Based on the investigation, it was finally decided to use the combination of Chaoxing Learningtong course platform + enterprise WeChat for online teaching of the font design course. As a teaching resource and a teaching activity platform, Superstar Learning Pass provides online teaching activities such as reading of learning materials, video viewing, signing-in, discussion, and testing. The official WeChat designation platform for teachers and students was used for daily reports, covering all the communication of teachers and students, providing convenience for teacher-student interaction and student-student interaction related to teaching and learning requirements.

It is also necessary to conduct a pre-course warm-up. In the usual online teaching format, teachers and students can only communicate through the Internet. With the teacher facing dozens of students through the screen, the communication process, especially the accuracy of information transmission and acceptance, is affected. To minimize the impact of online communication, a pre-class warm-up was designed with a group task of collecting and summarizing ideas before class, so that students would pay attention and take more interest in the relevant learning materials and the application of font design in their life, thus mobilizing students' interest in learning and to enter the professional course more prepared with this advanced preparation. They were able to enter the atmosphere of professional exploration of font design fully prepared, achieving the purpose of a pre-course warm-up.

#### **3.2 USE OF MULTI-INTERACTION - MULTI-PLATFORM AND MULTI-CHANNEL TO ACHIEVE COMMUNICATION AND INTERACTION**

In the course teaching process, the multi-platform combination of "live broadcast + recording + superstar course + enterprise WeChat group" is adopted to realize multiple exchanges and interactions.

The course teaching is in the form of live broadcast. The live broadcast can be used for screen sharing or video live broadcast according to the topic being covered. Students can ask questions in the live broadcast at any time when they encounter problems. This eliminates interaction barriers as much as possible to achieve an offline classroom learning atmosphere.

During the live teaching, the screen recording software is used to record the screen synchronously and upload it to the Superstar course platform after class. During online teaching, students may be affected by various uncontrollable factors such as network problems and sudden equipment failure which led them to be unable to complete their learning tasks during class. To overcome this problem, students are able to view the recording an unlimited number of times at any time they wish. Live + recording thus can solve the situation when individual students are not able to complete their learning tasks due to network or equipment problems in the process of live learning. Students who have difficulties in understanding the lessons are able to watch the lecture video repeatedly.

At present, the network interactive platforms applicable to online teaching are roughly divided into three major categories: one is the digital cloud curriculum construction platform, such as Super Star Learning Pass, Cloud Classroom, and Xue Tang Online. This kind of teaching resources and teaching activities platform provides online teaching activities such as learning materials reading, uploading and downloading, video watching, signing in, discussing and testing. The advantage is that the teaching work process chain is complete, but the disadvantage is that it lacks the fun factor and students' active participation is not high. The second type is live and recorded interactive platforms, such as Tencent Classroom, Beeping, Jitterbug, YY Live and Tiger. These platforms provide video pop-ups, real-time graphic discussion and interactions, and playback functions. The advantage is that students are familiar with the platform and communication methods, and are highly motivated to participate in the interaction, but the disadvantage is that the form is single and insufficient to achieve complete teaching activities. The third category is the after-school communication platform, such as WeChat group, QQ group and, microblog. These platforms provide group interaction space The advantage is that it is able to provide a good atmosphere for group interaction and discussions, but the disadvantage is that the interaction theme is time-sensitive and easy to be covered. Therefore, according to the actual needs of teaching, this course adopts the Super Star course platform + enterprise WeChat live broadcast + recording + enterprise WeChat group to achieve multiple interactive communication.

#### **3.3 STIMULATION OF INTEREST--MOBILIZING STUDENTS' INTEREST IN LEARNING IN MANY WAYS TO IMPROVE THE LEARNING EFFECT**

In online teaching, the biggest reason for the variability of students' online learning results comes from the individual variability of students' learning initiatives. In the online teaching process, teachers cannot monitor students' learning process in real time. So, students would have to learn actively and independently by making full use of the teaching materials provided by the online platform. Here they are able to learn, and actively interact with teachers in the live lectures to achieve quality learning results better than by just using offline teaching method. However, students who lack independent learning traits and are accustomed to passive learning are prone to miss class or attend 'false online classes' due to the lack of learning supervision. To solve the related problems and better stimulate students' interest in learning, the following aspects are adopted in the course teaching practice to promote students' active learning and improve the learning effect.

### 3.3.1 FUN SIGN-IN AND INTEGRATION

The construction of the online course platform provides a variety of sign-in methods, such as ordinary sign-in, gesture sign-in, and QR code sign-in. In the teaching process, both ordinary sign-in and gesture sign-in are used. The special sign-in pattern will stimulate students' interest in participating and actively completing the sign-in session, while the ordinary sign-in is only released on the course platform, and some students may miss the sign-in session if they do not pay attention to it in time. In the teaching practice of the font design course, the teacher used the sign-in gesture pattern combined with the knowledge of the font design course itself to create a set of 'sign-in body' Latin alphabet font design (See Figure 1), thus stimulating students' interest in learning. This leads to students both looking forward to the sign-in activity and directly participating in the design, by intuitively feeling the creative inspiration of the design works, and broadening the design ideas which improves learning autonomy. This will open up the design ideas, increase the learning autonomy and interest, and improve the quality of learning.

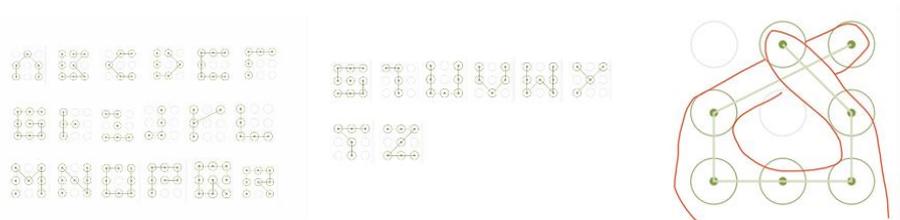


Figure 1 (a, b) "Sign-in" Latin letters

(c) "520" sign-in pattern

### 3.3.2 GROUPING TASKS, SELF-ASSESSMENT AND MUTUAL EVALUATION

Group tasks require students to work in teams to learn cooperatively and complete tasks together. Group cooperative learning has four characteristics: first, team dependence or team-centered, where they are responsible for themselves and the team; second, mutual cooperation, communication and exchange of what they have learned within the team to complete the task together; third, division of labor and collaboration as the group tasks require a reasonable division of labor for team tasks heading towards collaborative completion; fourth, a sense of collective responsibility where individual achievement affects team achievement and where individual responsibility becomes collective responsibility.

In the practical teaching of font design course, the knowledge points that students need to master are designed into group tasks for practice according to the teaching tasks. This teaching has two group tasks of research and comprehensive project analysis, which are grouped in two ways: random grouping and free combination, where each group is to demonstrate teamwork learning and online sharing, and reporting of task completion results. Secondly, the group tasks were evaluated by multiple evaluation methods, such as group self-evaluation, mutual evaluation and teacher evaluation, to evaluate the learning effect. The group task leads to group cooperative learning, which is conducive to online learning, promoting each other, enhancing communication, stimulating students' interest in learning, and enhancing teaching effectiveness.

### 3.3.3 RANDOM SELECTION AND TOPIC DISCUSSION

Online teaching lacks face-to-face communication, and students are prone to wandering off, which affects the learning effect. It is necessary to add interactive links in the teaching process to improve students' mental concentration and learning interest. In the teaching practice of font design courses, corresponding measures have been taken in live teaching and online digital cloud courses to stimulate students' interest in learning. First of all, in the live teaching, questions are added for the students to answer. There is also a plan sharing feature as well as the ability to randomly select people. This makes the students be more vigilant, concentrating, and preparing to answer questions that may be thrown at them. This is to avoid students getting used to a certain sorting method and thinking that it would not be their turn to answer the questions and thus stop paying attention which then delays the progress of learning, due to loss in interest in learning.

Secondly, in the digital cloud course platform, a topic discussion module is set up according to the course teaching objectives, such as "discussion topic 1: interesting font design discovery and sharing" and "discussion topic 2: discussion on the phenomenon of font use problems in life" discussions. The module runs through the entire course from the first lesson to the end of the course. The discussion topics are mainly set for the understanding and evaluation of the actual situation of font design, so that students would focus on design phenomena in life and learn to make reasonable and professional evaluations. Digital cloud courses are not limited by time, and they provide students with an independent learning platform and a topic discussion module. This provides teachers and students with the function of discussing and sharing at any time which leads to diversified exchanges and discussions between teachers and students as well as students and students, ultimately enhancing students' participation in their own learning, stimulating learning interest and active thinking.

### 3.3.4 LIKES AND COMMENTS, REWARDS AND INCENTIVES

In order to cultivate students' habit of sharing their works and create a learning atmosphere of 'sharing-discussion-promoting each other-improving together', we encourage students to share their work during the teaching process. We also allow them to comment and praise each other, and at a certain point in time, the class study committee will take note of the pieces of work with the highest number of likes and reward the students who design them. Students' enthusiasm and participation in learning are encouraged by the way of mutual evaluation and reward, and they take the initiative to do practical creation and improve their creative and practical abilities.

Students of this course are first-year students who have just entered school for the first semester of study and are forced to do online study at home due to the pandemic, which has a greater impact on them compared with their seniors from other grades. They should have completed the transition from high school to college in a new learning environment, and changed their study habits and learning styles, but, due to the pandemic, they will soon become second-year students without having physical classes. Therefore, in view of this special situation, it is necessary to better cultivate students' active learning habits and accumulate professional theoretical knowledge and professional skills training. Students are also recommended a list of professional theoretical books related to the course in order to encourage them to read and share. The course's praise, evaluation and reward promotion sessions also carefully select professional books as reward items, so as to create a better learning atmosphere for students and improve the learning effect.

### 3.4 FOCUS ON THE PROCESS - PAYING ATTENTION TO THE LEARNING PROCESS AND STRENGTHENING PROCESS EVALUATION

Learning assessment is the feedback of students' learning effect, and unreasonable assessment methods can discourage students' learning enthusiasm and restrict the development of students' individual thinking and creative thinking. Reasonable learning assessment can promote students' learning efficiency and improve the learning effect. The fundamental purpose of learning assessment is to promote students' better learning, and in the process of teaching practice, teachers should pay attention to timely and appropriate feedback on students' learning results. In view of the characteristics of design art courses and online teaching features, this font design course teaching practice, pays attention to the learning process evaluation, adjusting the ratio of the usual grade to the course completion grade from 30% (Coursework) + 70% (Examination) in offline teaching evaluation to 50% + 50%, increasing the proportion of coursework.

The font design course is a comprehensive course combining theory and practice, and the course teaching design is based on the actual work process of the occupation as the applied knowledge structure. The course adopts modular project-based teaching, which is practical and interactive. In each project-based teaching module, emphasis is placed on the advancement of the work process, and the basic work process can be divided into six major parts: information collation, program planning, design decision, design implementation, check and feedback and project evaluation. The teaching process emphasizes the advancement and completion of each work process, pays attention to student participation and learning effect, and adopts a multi-faceted learning evaluation method including student self-evaluation, student mutual evaluation and teacher evaluation.

Since students cannot uniformly use the equipment to complete the relevant practical training in the specialized teaching and training studio on campus, they can only make the best use of their own conditions to complete the tasks as far as possible. Students are subject to environmental conditions which affect the quality results of the final project products. Therefore, adjusting the evaluation ratio and paying attention to the learning process evaluation are more in line with the current online teaching style.

## 4. CONCLUSION

The objective of this research is to explore the practice of online teaching of a font design course using the online teaching principles of "early intervention, more interaction, stimulating interest, and emphasizing the process", seeking to explore the path of online teaching effectiveness and teaching quality assurance. In addition to different evaluation index systems to judge and examine the quality of online teaching, teachers and students should also focus on the influencing factors of teaching quality.

In this study, we focussed on the "teaching-learning" process and explore the online teaching practice of the font design course. In view of the difficulties faced in the practice of online teaching of design and art courses, such as limited, time, difficulties in communication between teachers and students, lack of concentration of students, and lack of objective learning evaluation, we propose the online teaching principles of early intervention, more interaction, the stimulation of interest, and emphasizing the process as well as the implementation of pre-class surveys, pre-class mini-tasks, and various teaching activities to stimulate learning during class. The course is based on the first-year visual communication design majors' online teaching practice. Through the teaching practice of early intervention, multi-interaction, stimulating interest, and emphasizing process, students have gone from not knowing font design at all to understanding the current frontier knowledge of font design, mastering basic font application rules and font design methods, and being able to complete the task of font design independently.

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