

Research on AI-Empowered Curriculum Reform and Teaching Practice of Chinese Painting in the Context of “New Normal Teacher Education”: A Case Study of Lingnan Normal University

Jiang Hu

Lingnan Normal University, Zhanjiang, Guangdong, 524048, China

Abstract

China's teacher education system has entered a new development stage, and the country is also pushing forward with digital education reform. Under such background, teacher-training colleges need to raise their requirements for students' overall abilities. Chinese painting carries forward our traditional culture and serves as a key part of art-related teaching. Any art teacher working in primary or secondary schools needs to grasp this fundamental skill. Teachers seldom offer targeted guidance for individual students. Teaching assessment methods are too simple and single. The courses fail to fully reflect the characteristics of teacher training, and digital teaching tools are rarely used in daily classes. This study takes the Chinese painting course of Fine Arts major in Lingnan Normal University as the research subject. It explores the theoretical basis, practical difficulties and specific implementation methods of applying AI technology to update Chinese painting courses. Based on the actual teaching situation, this paper puts forward practical reform plans from three key aspects: classroom teaching modes, teaching resource construction and student evaluation systems. It aims to provide a workable and promotable reference model for the curriculum reform of Chinese painting and other traditional art courses in local normal universities.

Keywords

New Normal Teacher Education; AI support; Chinese painting courses; Lingnan Normal University.

1. Introduction

Under the national plan Building a Powerful Country in Education (2024–2035), building “New Normal Teacher Education” has become a key plan for better teacher training and basic education teacher development. The core goal is to guide students with educator spirit, and train high-quality art teachers with strong practical skills and digital skills. I have watched real-class lessons over the past two years. Our nation now works harder on digital-based school education, and AI tools start to show up in many teaching activities. These new tools give local teacher schools useful technical support. Schools may update their old-style Chinese painting lessons with digital functions, and fix lots of long-time teaching problems I have noticed in my daily work. At Lingnan Normal University, Chinese painting is one key subject for Fine-Arts majors. From my class observations, many students need better support in painting study, so we must work out practical ways to apply AI inside this course without delay. I choose Lingnan Normal University for my case study to look into these real-class issues. It mainly tries to find practical ways to add AI into course reform and test whether these ways work. The findings can help improve courses here, and offer real experience for similar art courses in other local teacher colleges.

2. The Connotation of New Normal Teacher Education

The policies and core goals of New Normal Teacher Education aim to build a modern teacher training system that fits the needs of the new era. It also supports national policies of digital education and educational power construction. In the current intelligent education era, educational reform is an unavoidable and necessary trend. Different from the old teacher education model, the New Normal Teacher Education does not completely abandon traditional teaching modes. It explores new development paths for teacher education. It always takes fostering students' morality and values as the core principle. It combines practical teaching abilities with digital skills to cultivate outstanding teachers for the new era. As a local teacher university, Lingnan Normal University takes the construction of New Normal Teacher Education as its core development direction in educational transformation. This development orientation also matches the real teaching demands of basic education in western Guangdong areas[1].

3. Chinese Painting Course Arrangement and Teaching Problems of Fine Arts Major in Lingnan Normal University

3.1. Chinese Painting Course Arrangement

The Fine Arts program in the School of Fine Arts and Design, Lingnan Normal University, serves the art education needs of basic schools in western Guangdong. Our main job is to train art teachers for primary and middle schools in this area. Chinese painting classes help pass down traditional Chinese culture and carry out art education. After we updated the training plan for students, the program uses a training model: students gain one strong skill plus many related abilities. Teaching is split into three parts. From Term 1 to Term 3, students take basic art courses. From Term 4 to Term 6, they learn practical classes in their chosen art fields. In Term 7 and 8, students do teaching practice, write graduation papers and finish graduation art works. At the start of Term 4, students pick their art direction freely. They can choose Chinese painting, oil painting, printmaking or mixed-media painting. Right now, there are five Chinese painting classes across three grades. Courses follow a clear learning order. Students start with basic Chinese painting training. Then they take Chinese Painting I, Chinese Painting II and Chinese Painting III. These courses cover flower-and-bird painting, landscape painting and figure painting. Most lessons happen in classrooms. Teachers show painting skills in person. Students copy paintings and get group comments on their works. Teaching materials include paper painting books, slide shows and short teaching videos. We have built a complete and steady classroom teaching system for Chinese painting.

3.2. Existing Problems in Chinese Painting Courses

I have taught Chinese-painting classes for several years. When I worked with my group of 56 sophomore students, I saw many real-world issues in these courses. These issues stop our classes from reaching the aims of New Normal Teacher Education. These lessons fail to stress skills for future art teachers. Our major hopes students build one strong skill plus other useful related abilities. But most class time goes to practicing brush and ink work. Teachers spend far less time building students' teaching skills. A large number of my students can make nice paintings, but they cannot write simple art lesson plans or work with AI teaching tools. For this reason, they are not well-prepared to teach art in primary or middle-school classrooms.

One big difficulty is that teachers cannot give one-to-one help to every learner. Students keep repeating the same painting errors because no one corrects them quickly. It is also tough to support students whose painting skill levels are very different. The usual class setup has other obvious downsides too. Learners struggle to spot tiny details from printed painting examples.

They cannot replay live brush-and-ink demos whenever they want, and they do not have enough reference materials to inspire their own creative work. All these points make practical training less effective.

When it comes to digital tools, teachers only show slides and short videos in class. We have not built a complete set of smart learning materials and tools. Technology is not well combined with painting teaching. Besides, the courses seldom include art styles of the Lingnan School of painting and local scenes from western Guangdong. The classes do not build special features with local culture. The school fails to fully pass on local culture and support regional art education.

4. Theoretical Grounds and Feasibility of AI-Assisted Chinese Painting Curriculum Reform under New Normal Teacher Education

Some scholars including Xie Youru, Chen Wei and Qiu Yi have put forward three core principles for AI-driven curriculum reform. The intelligent upgrade of courses should take talent training goals as the core standard. It needs to adjust classroom teaching modes according to the characteristics of different subjects. In this way, the traditional teaching model with only teachers and students can be upgraded to a new cooperative model, which combines teachers, students and intelligent teaching tools. Based on the teaching reality of Chinese painting courses under the new teacher education policy, our course aims to train art students who are good at painting, skilled in teaching and capable of digital aesthetic education. We equip AI auxiliary teaching resources for three core learning scenarios: copying traditional Chinese paintings, creating works with Lingnan local features, and designing ink painting teaching plans for primary and secondary schools. This method effectively solves the long-standing problem of insufficient personalized guidance in large-class teaching.

In line with constructivist learning theory, intelligent tools can display complete classic paintings and split the whole painting process into simple steps of using brushes and ink. These tools give students more room to learn in their own ways. In my class with 56 sophomores, many students watched demo videos many times and practiced by themselves. Slowly, they picked up Chinese-painting skills and built their own ideas about how painting works. We want to fit teaching to each student's real situation. The smart teaching platform saves students' daily copying work, their painting habits and how fast they learn. Teachers look over these stored records, and then give out practice work fit for each learner. This helps solve a common problem I see in big painting classes: teachers hardly have time to give careful one-on-one advice to every student.

Blended learning mixes online study with in-class offline work. From my teaching practice with 56 sophomore students, I find students can pick up basic painting skills and gather creative materials from digital resources ahead of class. When class starts, they can spend most of their time painting by hand and get direct help from teachers. This method keeps the valuable parts of traditional Chinese painting teaching, and it also makes class time more useful. Today's teaching checks pay attention to students' whole learning journey. AI tools can save every step of how a student finishes a painting. They turn vague painting ability into clear data we can look at. In my past grading work, I often depended too much on personal feeling. These data help cut down such subjective bias. We no longer need to judge students only by their final finished paintings. These four teaching theories support and complement each other, laying a solid theoretical foundation for the application of AI in Chinese painting curriculum reform.

The development goals of new teacher education and AI-assisted teaching are highly consistent. Both of them aim to optimize the training mode of normal students and improve the quality of education. The new teacher education reform focuses on cultivating high-quality art teachers who can adapt to the development of basic education. It changes the old training idea that only

attaches importance to professional painting skills. Centering on the needs of teacher training, it pays more attention to practical teaching ability and digital teaching literacy. It requires normal students to master solid basic painting skills, professional teaching abilities, digital teaching thinking and the ability to spread traditional culture. AI technology can just make up for many shortcomings of traditional Chinese painting classes, such as the lack of individual tutoring in large classes, insufficient training of teaching skills and rigid evaluation methods. Various digital tools can help students prepare lessons, polish teaching designs and simulate classroom teaching. In this case, students can not only paint well, but also teach proficiently and use digital resources skillfully. Therefore, optimizing Chinese painting courses with AI fully meets the talent training requirements of new teacher education.

In terms of practical implementation conditions, Lingnan Normal University has a solid foundation for the intelligent reform of Chinese painting courses. Adhering to the school-running orientation of new teacher education, the university actively promotes the digital development of aesthetic education, and relevant school policies provide strong institutional support for curriculum reform. As a school-level high-quality course, the Chinese painting course has a stable teaching team and a mature curriculum system. Years of offline teaching have accumulated rich practical experience. Both teachers and students are willing to optimize classroom teaching with digital tools. Benefiting from the regional advantages of western Guangdong, the local rich historical materials of Lingnan painting school and unique rural scenery can enrich the characteristic digital teaching resources. Meanwhile, various intelligent teaching software has become increasingly mature. The university is fully capable of building a dedicated digital resource library for Chinese painting. All these favorable conditions lay a solid practical foundation for the implementation of this curriculum reform.

5. Educational Reform Plan for AI-enabled Chinese Painting Courses under the Background of New Normal Teacher Education

5.1. Restructure the Curriculum Training System

Guided by the core requirements of new teacher education, this study fully restructures and optimizes the Chinese painting training system. It combines the “one specialty with multiple abilities” training orientation of the Fine Arts (Teacher Education) major in Lingnan Normal University, as well as the real aesthetic education needs of primary and secondary schools in western Guangdong. Traditional Chinese painting courses overemphasize painting skills training. They ignore educational value and students’ teaching ability. This reform completely changes this old teaching mode. We aim to train comprehensive art teachers for basic education. These teachers have solid painting skills, independent classroom teaching ability, cultural inheritance awareness and basic digital teaching skills. The new curriculum closely combines professional Chinese painting learning with teacher education training goals. In terms of curriculum content, we keep classic and essential teaching modules. These include basic brush and ink training, traditional painting copying, and skill practice of flower-and-bird, landscape and figure painting. At the same time, we add new practical modules for teacher training. The new content covers Chinese painting teaching methods for primary and secondary schools, classroom demonstration skills, teaching design and micro-lesson production. We adjust the content and class hours of core courses including Basic Chinese Painting, Chinese Painting I, Chinese Painting II and Chinese Painting III. The whole learning process follows a progressive logic: laying a solid foundation, polishing professional skills, completing thematic creation and practicing real classroom teaching.

Based on the professional advantages of our major, we promote interdisciplinary integration and build three practical and replicable teaching modes. The new curriculum system keeps the traditional cultural core and painting characteristics of Chinese painting. It also fully meets the

ability training standards of new teacher education. It realizes a fundamental shift from cultivating professional painters to cultivating qualified art teachers for primary and secondary schools. First, we integrate Chinese painting learning with art teaching methods. The curriculum strictly follows the national art curriculum standards for basic education. It connects university-level ink painting training with primary and secondary school teaching content, such as freehand flower-and-bird painting, interesting ink art and basic landscape painting. Students need to finish creative works of common local themes, including plum blossoms, orchids and Lingnan lychees. Meanwhile, they must complete targeted teaching plans and simulated teaching practices suitable for primary and secondary students. Teachers of Chinese painting and art education guide students together. They help students polish both painting skills and classroom teaching procedures. This solves the common problem that many art students can paint well but cannot teach well. Second, we combine Chinese painting teaching with local Lingnan culture. The curriculum makes full use of local resources in western Guangdong. It integrates the artistic ideas of the Lingnan Painting School, the painting styles of representative painters such as Gao Jianfu and Guan Shanyue, and local regional elements into classroom creation. Common local creation materials include lychees, plantains, coastal scenery and Lei Zhou folk customs. We also organize students to visit local intangible cultural heritage museums and sketch in rural fields. Turning local cultural features into painting creation materials forms unique curriculum characteristics. It also helps students accumulate rich local aesthetic education resources for their future teaching career.

Third, we integrate Chinese painting teaching with aesthetic education theories and educational practice. We embed the aesthetic education requirements of the new era into every teaching link. When learning landscape and flower-and-bird painting, students are guided to explore the cultural meaning and aesthetic value of classic works. Cooperating with educational internship activities, the school encourages students to bring their self-designed Chinese painting courses to local primary and secondary schools. They can hold on-site ink painting experience classes for young students. This mode realizes the integrated development of skill training, cultural interpretation and teaching practice.

5.2. Optimize Practical Teaching and Evaluation Mechanisms

Practical work matters most when we train future teachers. In my project, I try to get different groups to work together and set up a practical-learning platform. This platform connects university professional classes, class visits at local primary and middle schools, and community art-education activities. I add hands-on practice to every step of Chinese-painting lessons for my 56 sophomore students. Students must finish training for real teaching work in this course. They need to write lesson plans, show painting skills in class, run mock lessons, make short class videos, and try out real art teaching in local schools. Through all these practice tasks, students can learn painting well, and they also build the skills needed to teach Chinese painting on their own. This effectively solves the common problem where students can paint well but fail to teach properly.

Focusing on practical talent training results, we break the old single evaluation system that only judges students by their final paintings. We build a diversified assessment method that covers the whole learning process, professional skills, teaching practice and self-reflection. Many daily learning performances are included in the final grade, such as class attendance, usual practice works, copying training and creative painting results. We also increase the assessment weight of teaching practice ability. The new evaluation system combines process assessment and final assessment, skill evaluation and teaching evaluation, subjective comments and objective checking. It can reflect students' comprehensive abilities more accurately and fully, which fits the talent training goals of the new normal teacher education.

5.3. Strengthen the Construction of Teaching Staff

To meet the overall needs of curriculum reform, we focus on improving the comprehensive teaching ability of Chinese painting teachers, so as to provide solid teacher support for the reform implementation. The school organizes various learning and exchange activities, including collective teaching research, classroom observation, inter-school communication and field investigations in primary and secondary schools. These activities help teachers update their educational ideas. Teachers can also master core abilities such as curriculum restructuring, interdisciplinary teaching and practical teaching design. In this way, teachers will no longer only teach painting skills. They can grow into comprehensive instructors with both professional painting literacy and teacher education capabilities.

We encourage teachers to conduct in-depth research on Lingnan local culture and basic education. Teachers can think up new class activities and make their own learning materials when they take local culture and real-class problems into account. From my work on this reform project, I find these changes help tie Chinese-painting lessons more closely to teacher-skill building and hands-on education. We also set up repeated learning chances so teachers can keep growing their professional skills. Our painting teachers work closely together and swap real-class experience. In this way, the group builds steady power for teaching and research work. This helps us carry out all reform steps and adjust them little by little. Over time, Chinese-painting classes will deliver better teaching quality and bring more positive learning results for students.

6. AI-enabled Teaching Practice Cases and Effect Verification of Chinese Painting Courses in Lingnan Normal University

We can sort AI-supported classroom activities into three related stages according to what we want students to finish. They are human-computer interactive learning, human-computer cooperative exploration, and human-computer creative creation (Xie Youru et al., 2025)[2]. I tested all three stages with my 56 sophomore students in this course trial. The three stages work together as one full learning cycle, and they offer AI-based help for students at different learning levels.

In this Chinese painting curriculum reform, I match each teaching stage with one AI teaching mode. Basic brush and ink skill training adopts human-computer interactive learning. The creation of Lingnan local themed works uses human-computer cooperative exploration. The design of primary and secondary school painting teaching plans belongs to human-computer creative creation. Guided by the previous curriculum reform plan, this research takes the sophomore Chinese painting course of Fine Arts (Teacher Education) major in Lingnan Normal University as the practical research object. With the help of intelligent teaching tools and digital learning resources, I carried out a complete teaching trial practice. I carried out the whole set of class activities, collected different kinds of data from my 56 sophomore participants, and thought carefully about what worked and what did not. With this real-class work, I check whether my reform plan can work and how well it performs. These real-world findings also give useful proof for us to keep improving Chinese-painting courses later.

6.1. Design and Implementation of the Practical Case

We chose the core course Chinese Painting (Flower-and-Bird Painting) for this teaching trial. The participants were 56 second-year students from the Fine Arts (Teacher Education) major. The teaching lasted for 11 weeks, with 16 class hours each week. The whole teaching process followed the rebuilt training system, interdisciplinary rules and practical education goals. We carried out the lessons in four separate stages. The first stage built basic painting skills. Students learned how to hold brushes and use different brush and ink skills. At the same time,

they learned how to show these skills to young students in primary and middle school flower-and-bird art classes. High-quality digital painting samples and step-by-step video clips let students watch fine brush movements many times. Students also thought about how to turn these basic painting skills into teachable knowledge for school art lessons. The second stage focused on copying classic works to improve skills. We chose common traditional subjects, including plum blossoms and orchids. Online comparison and quick-feedback tools gave support while my 56 sophomore students practiced painting. Once learners finished their practice pieces, they could compare lines, forms and ink shades with standard samples on the digital platform. Teachers looked over the gathered learning data, and then gave feedback to the whole class as well as tips for individual students. The third phase focused on creation works about local culture. I centered this part on Lingnan cultural features. Students drew local plants growing in western Guangdong, such as lychees and plantains. Plenty of digital reference files opened up new thoughts for their creation. Learners learned to combine old brush-and-ink skills with local cultural elements. In the end, they produced flower-and-bird paintings that showed local styles and reached solid artistic standards. The fourth phase built up students' teaching skills. My main aim here was to help them become people who can paint competently and also run art classes well. Students had to write flower-and-bird lesson plans, give trial class speeches and build presentation slides. They added AI-produced moving pictures of Chinese-painting processes to these slides. This part tied hand-on painting skills, knowledge from different subjects and real teaching work together. It hit the key targets I set for this course reform[3].

6.2. Data Collection and Analysis of Practical Results

I gathered research information from these 56 student participants. I used several ways to get data: questionnaires, marks for in-class paintings, teaching-skill evaluation, and face-to-face conversations with teachers and learners. Next, I put these new results side by side with records we kept before the course reform started. When I looked at students' painting techniques, I saw obvious improvement. Their copied paintings had more correct shapes, more stable brush moves, and they handled different ink layers much better. Their overall painting level went up greatly. Students also became more capable in many other areas. They did better at creating paintings, writing lesson plans and speaking in front of a class. The well-known trouble — students could paint nicely yet could not teach — got much relieved. Almost 90 percent of these learners could finish a complete flower-and-bird art lesson plan for primary or middle schools all by themselves.

I also noticed changes in how students treated this subject. More of them showed interest in Chinese painting. They spent twice as much time studying on their own than they did before the trial. More students were happy to take part in sketching work, painting creation and teaching-related practice. Besides, after I brought Lingnan local culture into class content, students picked more local themes for their painting work. The course linked more closely to local art teaching needs across western Guangdong. It meets the skill-building standards for art majors under New Normal Teacher Education. All the collected data tells me this class trial fixed many usual weaknesses of old-style painting courses. Those weaknesses were little chance for personal guidance, not enough focus on teacher-training skills, and low class efficiency. My reform ideas and practical steps produce good results in real classroom situations.

6.3. Practical Reflection and Curriculum Optimization Suggestions

This class trial also let me see many weak points in how our course actually runs. From what I observed among my 56 students, a small number of learners depended too heavily on digital learning tools. They cut down time for hand-painted work, and their basic brush-and-ink skills became less firm as a result. Some teachers are also not equally good at using digital teaching tools. A few of them still find it hard to mix smart tools into regular traditional painting classes.

We also face problems with our teaching materials. Many existing resources are not original or well-organized, and we do not own enough digital files for painting themes about Lingnan local culture. On top of that, most of our teacher-skill exercises only happen in mock class settings. We still lack real cooperation with local primary and middle schools, so students get very little real-world classroom teaching experience.

After noticing those issues from my trial with 56 students, I come up with three ways to make this course better. First, traditional hand-painting practice must stay at the heart of our training work. We need clear simple rules for when students can use digital tools, and add more class hours for offline hand-painting work. So learners can build strong basic professional skills. Second, the school ought to hold regular learning chances for teachers. These include group talks about class teaching and meetings for sharing real-teaching cases. Such activities help teachers get more skillful with digital materials, and let them bring new teaching ideas into their everyday painting classes. Third, we need to work more closely with primary and middle schools around western Guangdong. We should offer more chances for students to do on-site internships and take part in community aesthetic-education volunteer work. At the same time, we will keep making more digital teaching materials that show Lingnan local culture. All these changes can help our course reform match the aims of new teacher education and support local aesthetic-education growth.

7. Conclusion

I carry out this research against the background of new-era teacher education and shifts toward digital school education. I look at how the Fine Arts major runs at Lingnan Normal University, and think about what local primary and middle schools in western Guangdong really need for art classes. In my research, I point out several clear troubles within the school's Chinese-painting lessons. Among them are weak teacher-training goals, not enough one-on-one student support, limits from old class patterns, shallow use of digital tools, and too little content about Lingnan local culture. I have worked out a full set of reform plans. These plans cover adjusting the whole training system, polishing practical teaching and grading rules, and helping the teaching team grow stronger. I ran a complete round of class testing in the sophomore Chinese Painting (Flower-and-Bird) course with my 56 students. What I see from this trial proves that my reform brings good results. I mix knowledge from different subjects, bring in local Lingnan culture, put more weight on teacher-skill practice, and test new class methods. These adjustments fix the major hard points we meet in traditional Chinese-painting teaching. The course is not only about learning painting skills any more. It helps students build four kinds of abilities together: brush-and-ink techniques, classroom teaching skills, cultural awareness, and digital tool competence. My student participants showed real improvement in painting creation, class performance, and self-directed study. The revised course fits the requirements for training art teachers under New Normal Teacher Education much better.

The experience and practical steps gained in this trial can keep lifting the quality of Chinese-painting classes at Lingnan Normal University. They also give a practical example for other local teacher schools that offer traditional-art subjects. Those schools can hold onto their own cultural traditions, pay more attention to teacher-training goals, add local cultural content, and explore fresh teaching ideas. My work helps art education in teacher universities and basic-education teacher preparation move forward together in the new age.

Fund project

Fund Project: Lingnan Normal University Education and Teaching Reform Project of 2024, Research on AI-enabled Curriculum Reform and Teaching Practice of Chinese Painting under

the Background of "New Normal Teacher Education" (Document No. JW[2024]113, Lingnan Normal University)

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