International Journal of Engineering, Management and Humanities (IJEMH)
Volume 5, Issue 6, Nov.-Dec, 2024 pp: 134-140 ISSN: 2584-2145
www.ijemh.com

Research on the Strategies for Improving the Teaching Ability of Young Teachers in Media Practice in the Era of Artificial Intelligence

Zhang Xiong[1]，Ying Qun[1]，Chang Rui[2]，Zhang Huajun[3]，Cong Rong[1]
[1.]*College of Publishing, University of Shanghai for Science and Technology, Shanghai, China.*
[2.]*Jiangsu Vocational Institute of Commerce, NanJing JiangSu, China.*
[3.]*Limkokwing University of Creative Technology, Cyberjaya, Malaysia.*

Date of Submission: 03-11-2024 Date of Acceptance: 14-11-2024

Abstract: Artificial intelligence has been widely used in various fields, which has promoted a new stage of intelligent social development, and also profoundly changed the teaching methods and ability needs of colleges and universities. As a new force in the field of higher education, young teachers are faced with the challenge of how to adapt to the era of artificial intelligence and improve their ability to practice teaching media practice.They can update the course content around artificial intelligence, including introducing the basic knowledge of artificial intelligence, cultivating data analysis and data literacy, and discussing artificial intelligence ethics and laws and regulations.Young teachers can also carry out the practice of teacher-student co-creation, such as the operation demonstration of artificial intelligence software, the implementation of integrated teaching of class competitions for specific practice, and the establishment of virtual collaboration platforms.They can also optimize and improve their media practice teaching ability through active participation in teaching competitions,which is inseparable from the requirements of the times to integrate artificial intelligence in clarifying competition objectives, innovating competition forms, and strengthening technical support.

Keywords: Artificial Intelligence; Young Teachers; Practical Teaching of Media; Teaching Ability

I. INTRODUCTION

With the rapid development of science and technology, especially the breakthrough of computer science, artificial intelligence came into being.From simple algorithms to today's sophisticated deep learning models, AI is increasingly capable of simulating, extending, and extending human intelligence.The accumulation of big data,the improvement of computing power and the continuous optimization of algorithms have promoted the wide application of artificial intelligence technology, and the application scenarios of intelligent technologies such as Chatgpt, Midjourney, and Sora have become more and more popular, and human society has begun to enter a new stage of intelligent development.This process has not only changed the mode of production,but also profoundly affected people's lifestyles and social structures, so much so that the Interim Measures for the Management of Generative AI Services explicitly encourage the innovative application of AI in various industries and fields.

In this context, there has been a profound change in the teaching methods and competency needs of teachers. As a new force in the field of higher education, young teachers are faced with the innovative challenge of how to adapt to the new teaching needs in the era of artificial intelligence and improve the teaching ability of media practice. The so-called practical teaching refers to the teaching activities in which teachers guide students to use the theoretical knowledge they have learned in various practical activities to cultivate and exercise the comprehensive application of various knowledge and skills (Zhao Hongwei, 2007).Media practice teaching is that the teachers of media courses present the theoretical knowledge of media to students according to their original occurrence, development, movement and change,so that students can acquire rich perceptual knowledge and direct participation experience through hearing, witnessing and hands-on (Liu Qian, 2011), involving the knowledge content of journalism, communication, advertising, film and television.In the era of artificial intelligence, young teachers can adopt the following strategies to improve their ability to teach media practice.

II. Updating the course content around artificial intelligence

From content creation to distribution, from

International Journal of Engineering, Management and Humanities (IJEMH)
Volume 5, Issue 6, Nov.-Dec, 2024 pp: 134-140 ISSN: 2584-2145
www.ijemh.com

data analysis to user experience, artificial intelligence has gradually penetrated into all corners of the media field, and young teachers are facing unprecedented challenges and opportunities in their media practice teaching. In order to effectively improve teaching ability and adapt to the development of new technologies, the update of curriculum content is particularly important.Young teachers can start from the following aspects to update the curriculum around artificial intelligence,so as to successfully build the basic framework of integrating artificial intelligence into media practice teaching at the theoretical level.

2.1 Fundamentals of artificial intelligence

The basic knowledge of artificial intelligence mainly includes the concept connotation, development process, main schools, representative figures, specific applications, technical principles and other aspects of artificial intelligence.It mainly refers to the theories, methods, technologies and application systems that simulate and realize human intelligence through computer programs or machines (Lei Xiaoyan and Deng Muhai, 2023), which is an important branch in the field of computer science. The term first appeared on the stage of history in the summer of 1956 at an academic symposium held at Dartmouth College in the United States, where John McCarthy, Marvin Minsky, Claude Shannon and other scientists decided to call machines that think like humans "artificial intelligence". At present, the development of artificial intelligence is mainly divided into three major schools: symbolistic AI, connectionist AI,and actionist AI (Wu Fei, 2023), and the application of AI in media practice mainly includes pre-development with creativity as the core, art design and digital asset production, motion capture and character visual effects production, other post-production processes, and AI direct generation of moving images (Chen Jun et al., 2023）.The reason why AI can deeply involve a large number of applications in media practice is due to the promotion of deep learning and image recognition, generative adversarial networks (GANs), computational photography, diffusion models and other technologies. For media students, the mastery of the above basic knowledge will help them understand the past and present life of AI and how it can be applied to media practice, and feel the great influence of AI technology in media practice. The process of teaching is also an opportunity for young teachers to improve their intellectual literacy and constantly consolidate their foundation for practical teaching.

2.2 Data analysis and data literacy

The rapid development of artificial intelligence is profoundly changing all walks of life, and its core driving force is data-driven. Against this backdrop, data analysis has become an indispensable key skill for media students. This is not only because data is the foundation of modern media practice, but also because in the era of information explosion, how to quickly collect, process and understand data directly affects the accuracy and dissemination effect of media content. Therefore, the curriculum content of the media major needs to keep up with the development trend of the times and add the basic knowledge and methods of data analysis. This includes how to use technology to collect data, how to extract useful data from a large amount of information; and how to clean the data, that is, find and correct errors and strange values in the data to ensure that the data is accurate; and statistical methods and models for data analysis, so that students can learn to see trends and predict the future through data. Data visualization is also an important part of transforming complex data into intuitive, easy-to-understand graphs that help decision-makers quickly grasp the story behind the data. More importantly, the course content should be closely related to the actual needs of the media industry, and deeply integrate theoretical knowledge with practical application scenarios. For example, by analyzing data such as the audience's browsing habits and click behavior, students can learn how to build user personas and optimize content push strategies. Studying hot topics and trends on social media will enable students to understand how to use data to guide the direction and angle of news reporting, as well as to evaluate the effectiveness of communication. This kind of teaching not only improves students' data analysis skills, but also enables them to deeply understand the importance of data-driven decision-making in practice, laying a solid foundation for entering the media industry in the future.

2.3 Ethics and Laws and Regulations of Artificial Intelligence

The widespread application of AI technology has brought ethical and legal issues, such as the generation of false information and data privacy leakage, and the cultivation of data literacy also includes concerns about data privacy and ethics. The media industry itself involves a large amount of users' personal information, and students need to understand how to protect user privacy and avoid ethical risks in the process of data analysis. The addition of AI ethics and laws and regulations to the

International Journal of Engineering, Management and Humanities (IJEMH)
Volume 5, Issue 6, Nov.-Dec, 2024 pp: 134-140 ISSN: 2584-2145
www.ijemh.com

course content is not only in line with the requirements of AI ethics, but also a code of ethics for the media industry. In this way, students can establish correct moral and legal concepts, regulate themselves in media practice, and reduce ethical and legal crises caused by technical problems. For example, it can explain the impact of deepfake technology in media practice, so that students can understand the disadvantages of disinformation and how to use AI technology to verify and monitor public opinion. At the same time, it can also be combined with relevant laws and regulations at home and abroad to enable students to understand how to use AI technology within the scope of legal compliance. This kind of teaching can undoubtedly enable young teachers to deepen their understanding of the legal use of artificial intelligence and improve their humanistic qualities in media practice teaching.

Young teachers can selectively integrate the updated contents of the above three aspects into the teaching of media practice courses such as news interview and writing, digital photography and editing, film and television advertising production, creative photography, and short video operation. With the help of classroom teaching, students can intuitively understand the impact of AI on the media field, deepen young teachers' grasp of AI knowledge, and serve to improve their practical teaching ability.

III. Carry out the practice of teacher-student co-creation around artificial intelligence

Through the collaborative creation of teachers and students, teaching activities are no longer one-way knowledge transfer, but a process of joint participation, joint discussion, and common growth (Xu Linxiang, 2024).This teacher-student co-creation practice model can not only stimulate students' creativity, but also improve teachers' teaching ability and professional level, and enhance the interaction and trust between teachers and students. In the context of the rapid development of artificial intelligence, it is becoming more and more important for teachers and students to participate in the creation of teaching models. In the practice of teacher-student co-creation, young teachers are responsible for providing guidance on subject knowledge, values, software demonstration, communication and feedback, etc., while students need to understand the working principle of artificial intelligence, learn how to use it, and master basic operation skills through practical hands-on operation. Specifically, it mainly includes the following practices:

3.1 Featured AI tools

The development of artificial intelligence provides a wealth of creative tools for media practice teaching, and teachers can choose the most suitable tools for media practice and introduce them into teaching practice for detailed introduction, so that students can experience new technologies. For example, the text generation models Chatgpt and Wenxin Yiyan, the image generation tool Midjourney, the large model Zhipu Qingyan, which directly generates videos from text, and the large model MusicLM that generates music from text, etc. These large AI models can automatically generate text, pictures, videos, and sounds based on detailed descriptions of style, duration, word count, and other requirements. At present, artificial intelligence has made rapid progress in the fields of 2D images, 3D assets, textures, animation, and scene generation. E, Midjourney and other products, using deep learning (DL)-based image generation methods such as Flow-based Model, Diffusion Model, Generative Adversarial Network (GAN), and Variational Auto-Encoder (VAE). Based on the supervised learning of large-scale labeled image data, the tasks such as generating real images (Text-to-Image) that conform to the given text description and expanding and filling the input images are realized, and the tasks of art design, concept map generation, and storyboard drawing are assisted. In addition, AIGC tools based on the above technologies are also integrated into flat image processing software, such as Adobe Photoshop, which has added an artificial intelligence tool Firefly, which can realize functions such as text-based image generation and generative filling, and improve the freedom of reprocessing content generated from 2D images (Chen et al., 2023). Therefore, the introduction and explanation of these tools by young teachers can not only improve students' ability to apply technology, but also help students understand the application of artificial intelligence in the field of media and its limitations.

3.2 Implement integrated teaching of class competitions

Just as theory is to be used to guide practice, the introduction of tools must be supported by concrete works in order to be implemented in the end. The integrated teaching of class competition is a practical teaching method that is very suitable for the implementation of artificial intelligence tools and the co-creation of teachers and students. The so-called integrated teaching of course competition is the integration of subject competition and classroom education, and the teacher guides students to participate in subject competitions to complete

International Journal of Engineering, Management and Humanities (IJEMH)
Volume 5, Issue 6, Nov.-Dec, 2024 pp: 134-140 ISSN: 2584-2145
www.ijemh.com

specific works throughout the teaching mode, so that the competition becomes a useful supplement and expansion of students' learning. The integrated teaching of courses and competitions can better play the evaluation effect of practical results, and pay more attention to the cultivation of students' hands-on practice and innovation ability. (Sun Mingyuan, 2023) Young teachers can choose subject competitions related to media practice, and the creation of competition works will be divided into multiple stages, which will be completed by teachers and students. Each stage can be subdivided around the application of artificial intelligence at that stage, students can gain practical experience through the assignment of specific tasks, and teachers can provide feedback and guidance according to the progress of creation, forming a closed loop of teaching. For example, young teachers can guide students to participate in the AI image track of the Shanghai University Student TV Festival All-Media Image Competition according to the three stages of pre-competition preparation, work creation, and finished product competition. First of all, the teacher leads the students to carefully study the background, theme, work requirements, topic selection guidelines and other basic knowledge of the competition, and on this basis, the teacher needs to explain the writing method of the creative outline in detail, and guide the students to think about the creative plan according to the proposition strategy and communicate and revise it in class. Then give students time to practice creation with the help of artificial intelligence software, such as using Midjourney to generate pictures, and then import the pictures into non-linear editing software for scene and motion modification, or using MusicLM for automatic dubbing, etc., if there are any problems in the creative process, students can give feedback at any time. Finally, the first draft of the work is communicated and revised until it is entered in the form of streaming. This teaching mode is essentially a co-creation of teachers and students under the guidance of teachers, teachers and students participate in competitions that are in line with the content of the course and professional characteristics according to the content of the competition and professional characteristics, and as the social practice content of the professional course, the results of the competition can be included in the students' course results.

3.3 Establish a virtual collaboration platform

In the era of artificial intelligence, teaching is no longer limited to the traditional physical classroom, but has crossed the boundaries of space and time and moved towards a new field of virtual collaboration full of infinite possibilities. The rapid development of artificial intelligence technology has not only brought revolutionary changes to the field of education, but also provided an unprecedented broad stage for teachers and students to co-create. Teachers can make full use of various advanced online collaboration platforms to skillfully design a series of interdisciplinary and cross-regional practical activities, attracting students from all over the world and different geographical backgrounds to participate and explore the ocean of knowledge together. For example, teachers can guide students to use the virtual whiteboard tool, a digital sketchpad that integrates artificial intelligence technology, to have real-time creative collision and inspiration exchange. At the same time, with the help of online project management tools, students are able to clearly assign tasks and track progress, so that they can develop excellent collaboration skills and time management awareness in practice. These virtual platforms can completely record every detail of the entire project from planning to implementation to achievement display, providing detailed and objective data support for the evaluation of teaching results. These data can not only help young teachers evaluate students' learning effectiveness more accurately, but also provide a strong basis for future teaching improvement and promote the continuous improvement of teaching quality. With the help of artificial intelligence, teaching is being rejuvenated and energized like never before.

The most important thing in the practice of teacher-student co-creation around artificial intelligence is to create a practical situation, so that students can improve their practical skills through the creation of specific works, and young teachers can find the shortcomings in teaching and continuously improve their practical ability through students' participation and feedback in the process of guiding students' practice.

IV. Implement the optimization of teaching competitions around artificial intelligence

Participating in the teaching competition can not only stimulate the teaching enthusiasm and motivation of young teachers, but also allow young teachers to expand their teaching horizons and ideas in the competition (Yang Yang, 2024). As an important means to improve teachers' teaching ability and stimulate students' interest in learning, teaching competitions also need to follow the development trend of artificial intelligence and keep pace with the times and integrate artificial intelligence elements. Young teachers can refine their understanding of

International Journal of Engineering, Management and Humanities (IJEMH)
Volume 5, Issue 6, Nov.-Dec, 2024 pp: 134-140 ISSN: 2584-2145
www.ijemh.com

intelligent creation and media practice teaching with the help of competition platforms such as the Teaching Competition for Young Teachers in Colleges and Universities and the Teaching Innovation Competition for Teachers in Colleges and Universities, and design practice-oriented teaching demonstrations, such as the display of rich intelligent teaching resources, the operation of intelligent editing software, and the intelligent generation of social media marketing programs, so as to integrate the latest progress of intelligent creation technology and the latest requirements of the industry for talent training into the teaching competition.

4.1 Strengthen the artificial intelligence orientation of teaching competitions

The teaching competition is an important platform for young teachers to show their teaching ability, and it is also an important way for them to quickly improve their teaching practice ability. Through the platform of teaching competition, young teachers are encouraged to continuously explore and innovate teaching methods. Based on the background of artificial intelligence, young teachers can focus on how to effectively integrate artificial intelligence technology into daily media teaching practice when participating in teaching competitions. Specifically, the dimension of "integration of classroom design and artificial intelligence technology" can be added to the evaluation criteria of teaching competitions, so as to encourage teachers to explore how to use AI tools such as natural language processing and intelligent question answering to enhance classroom interaction and enhance students' active participation. As a result, young teachers can devote themselves to integrating AI technology into their teaching content to make the classroom more vivid and intelligent. In the preparatory stage of the competition, comprehensive consideration should be given, including both solid theoretical teaching and AI-oriented practical operation, in order to improve the comprehensive quality of teachers in an all-round way. When designing the curriculum, participating teachers are encouraged to go beyond the content of the textbook and actively introduce AI-driven multimedia resources to broaden students' knowledge. This series of measures can not only stimulate the enthusiasm of young teachers to learn AI technology spontaneously, but also effectively improve their AI-oriented teaching skills and level.

4.2 Innovate the form of participation in teaching competitions

In the framework of traditional teaching competitions, the form of participation is often limited to teaching and presentation in specific scenarios, and its content and teacher-student interaction methods are relatively fixed and lack diversity. Stepping into the new era of artificial intelligence, we can use this cutting-edge technology to innovate the organization of the competition, and evaluate the resilience of young teachers in the actual teaching environment by simulating teaching scenarios that are close to reality. Specifically, we can explore a new model of blended teaching competition, that is, teachers can skillfully integrate online interactive elements on the basis of maintaining a certain amount of offline teaching, and even use virtual reality (VR) or augmented reality (AR) technology to build a diversified teaching simulation environment, so that teachers can exercise and grow in these complex and changeable teaching situations. In these competitions, teachers need to demonstrate strong classroom management skills and the flexibility to integrate AI technology into online student interactions. This kind of situational simulation competition not only helps to improve teachers' teaching adaptability and innovation ability, but also accumulates valuable experience for them to effectively cope with and solve practical problems in classroom teaching in the context of the era of artificial intelligence.

4.3 Establish an intelligent teaching competition feedback system

Teaching competitions are not only a place to showcase their teaching skills, but also an opportunity for young teachers to get feedback and continuously improve their teaching. The AI-based teaching feedback system can intelligently analyze teachers' classroom performance, students' feedback, and teaching effectiveness, so as to provide teachers with multi-dimensional suggestions for improvement. For example, we can use speech recognition technology to automatically record and analyze the content of the teacher's lectures. At the same time, combined with speech emotion recognition technology, it can capture and analyze teachers' emotional expressions in the classroom in detail, which helps teachers to self-perceive and identify potential problems in teaching, and then take corresponding measures to improve them. In order to promote the professional growth of young teachers, we can integrate this comprehensive feedback system into teaching competitions to build a comprehensive data tracking and analysis system covering instructional design, classroom performance, and student feedback. The establishment of this system

International Journal of Engineering, Management and Humanities (IJEMH)
Volume 5, Issue 6, Nov.-Dec, 2024 pp: 134-140 ISSN: 2584-2145
www.ijemh.com

means that young teachers will be able to clearly understand their strengths and weaknesses in teaching based on objective and comprehensive data. In the evaluation of the competition, the judges can rely on these detailed data to evaluate teachers using more fair and scientific standards. Young teachers can make full use of the results of these data analysis to carry out in-depth self-reflection and adjustment of teaching strategies, in order to achieve a leap in teaching level through continuous self-improvement. In this way, we can not only optimize the evaluation mechanism of teaching competitions, but also lay a solid and effective path for teachers' professional growth and development.

In the context of artificial intelligence, teaching competitions have become an important way to improve the teaching ability of young teachers. By clarifying the objectives of the competition, strengthening the orientation of teaching practice, and encouraging teachers to integrate AI technology into classroom design, the vividness and intelligence of teaching are improved.At the same time, the innovative competition format simulates real classroom situations to test teachers' coping ability and AI technology application ability. In addition, we have strengthened technical support, established an intelligent teaching feedback system, and provided teachers with multi-dimensional improvement suggestions to help young teachers objectively and comprehensively understand and improve their teaching level. Teaching competitions should keep pace with the times and become a solid platform for young teachers to grow and innovate.

V. CONCLUSION

In the era of artificial intelligence,the practical teaching of media is facing unprecedented changes.As the backbone of higher education, young teachers must keep up with the pace of the times and continuously improve their ability to practice and teach media.By updating the curriculum content around artificial intelligence,young teachers are able to integrate cutting-edge technology into their teaching,so that students can master the skills to adapt to the future media environment. The practical teaching mode co-created by teachers and students not only ignited the spark of innovation of students, but also greatly promoted the growth of teaching skills of young teachers.The optimization of the teaching competition has built a valuable stage for young teachers to show themselves and learn from each other, motivating them to constantly innovate and improve the quality of teaching.In this process, young teachers need to closely integrate theoretical knowledge with practical operation, and have the courage to explore new teaching modes and tools to cope with the new requirements of the media industry for talents in the era of artificial intelligence.At the same time,colleges and universities should also increase the training of young teachers, provide more learning resources and growth opportunities,and help them achieve more brilliant achievements in the practical teaching of media in the context of artificial intelligence.Through joint efforts,we can cultivate more media talents with innovative spirit and practical ability, and contribute wisdom and strength to the intelligent development of society.

Acknowledgement

This paper is the interim result of the 2024 University of Shanghai for Science and Technology Teacher Development Research General Project "Research on the Innovation and Improvement of Young Teachers' Media Practice Teaching Ability in the Era of Intelligent Creation" (Project Number: CFTD2024YB21).

REFERENCES

[1]. Zhao Hongwei.Strengthen practical teaching and cultivate highly skilled film and television technicians[J].Modern film technology.2007 (03):56-58.
[2]. Liu Qian.Analysis of practical teaching of film and television education in Colleges and universities[J].Journal of Henan Institute of Education (Philosophy and Social Sciences Edition).2011 (06):121-123.
[3]. Leixiaoyan, Deng Muhai.Reflection on the reform of College film and television education mode in the era of artificial intelligence[J].Communication and copyright.2023 (10):104-106.
[4]. Wu Fei.Looking back to the origin of artificial intelligence: Dartmouth conference[J].Science. 2023 (04):49-52.
[5]. Chen Jun, Zhao Jianjun, Lu Menghe.Research and Prospect of AI and intelligent film production[J].Modern film technology.2023 (10):16-26.
[6]. Xu Linxiang.From "discipline core literacy" to "curriculum training core literacy" [J] Course, textbook and teaching method.2024 (08):91-97.
[7]. Sun Mingyuan.Integration of competition and education opens up a new space for education[OL/R].Science and technology daily. September 6, 2023.http://edu.people.com.cn/n1/2023/0906/c1

006-40071530.html
[8]. Yang Yang,Link age mechanism and practice of teaching skills competition and teaching ability improvement of young teachers in Colleges and universities[J].The Science Education Article Collect.2024 (14):16-19.