

Research Article

Analysis of Animation Peripheral Design Ability Based on Artificial Intelligence

Jiang Lulu , Li Xiuhua, and Feng Wei

Maanshan Teachers' College, Maanshan, Anhui 243041, China

Correspondence should be addressed to Jiang Lulu; 10148@massz.edu.cn

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With the development of communication technology and hardware technology, only continuous innovation in animation production can meet the development needs of the times. Animation has recently received substantial interest in special education. New forms of representation, including animation, multimedia, and virtual reality, are some of the key developments that education technology has made possible. Animation software is an influential mass media, communication, and education platform. Progressive improvements in technical methods along with the expansion of knowledge and skills have resulted in an increase in variety as well as the speed of production of new products for animation. In this study, we propose an Advanced Animation Teaching Model (AATM) based on Design-Oriented Learning Approach (DOLA). Design-based learning is the incorporation of design projects in classrooms so that students can acquire creative solutions and learn curriculum content by participating in actual, cross-curricular challenges. This model keeps pace with the times to meet the needs of the modern market. It combines introduction to animation, color composition, color psychology, composition basis, spatial perspective, animation scene design, and visual art design-related theories to form the theoretical basis for the major. The results showed the trends of animation used in education and the strengths of animation to improve the learning of students and enhance the thinking ability of the students.

1. Introduction

Animation is an integrated emerging industry and composite industry that integrates art appreciation, technical operation, creative conception, and marketing. At this stage, the animation industry is mainly composed of three main bodies, namely, animation products themselves, audiovisual products, and animation derivatives. At the same time, there are problems such as the inconsistency between the training of animation talents and the development of the market, the teaching goals are too written, and there are no clear and clear teaching goals. After 2005, animation majors have sprung up in major colleges and universities across the country. At present, more than 500 universities across the country have opened animation majors, and about 1,000 universities have opened specialized animation schools and departments. The animation industry is cultivated every year. The number of talents is huge, temporarily alleviating

the talent gap of a small part of the animation professional industry, but the demand is still insufficient. On April 25, 2006, the State Council Office issued Guobanfa [2006] No. 32 and forwarded the “Several Opinions on Promoting the Development of my country’s Animation Industry” by the Ministry of Finance and other departments to further define the concept of animation at this stage: animation industry refers to focusing on “animation creativity,” with video animation and audio-graphic comics as the main forms of expression; it mainly includes the development and output of direct animation products such as animation books, books, newspapers, film and television works, audio and video products, stage plays, and modern information dissemination methods and related derivatives. Because our country is deeply influenced by exam-oriented education, traditional animation design and production professional teaching pay more attention to classroom teaching, heuristic teaching practice classroom teaching is almost no longer

empty talk, and “closed door” has gradually become a common classroom teaching practice routine management status. The teaching method is relatively single and lacks practical content, which results in students not being innovative and active in the actual learning process, which reduces the students’ enthusiasm and enthusiasm for the animation major. In this way, the final result of education is extremely high. It may cause the educated students to directly lose their due “protective clothing” in the “cruel” social market competition.

An advanced animation teaching model (AATM) based on the design-oriented learning method (DOLA) is applied to the new teaching mode, which makes the new teaching mode pay more attention to the cultivation of the social practice ability of vocational students than the traditional teaching in the past. At the same time, it also improves the professional level of students to a certain extent and provides a certain way to solve the problems of students’ employment difficulties and scarcity of talents in enterprises.

2. Materials and Methods

At present, the education of animation major in higher vocational colleges is relatively single in terms of textbook design and teaching mode, and the teaching method is outdated, and the teaching concept is relatively backward. The teaching of animation major in higher vocational colleges is out of touch with market requirements. An excellent animation peripheral design can not only drive the popularity of the animation but also form a good objective income. Therefore, many animations are produced solely for the purpose of driving the development of the animation peripheral design industry in the future. [1] Through market research, it is found that, for animation consumers, they pay more attention to the re-creation of animation culture derived from animation, followed by the functionality of this product. Therefore, it is necessary to continue to re-create characters; students should strengthen their animation impressions so that they can have a deep understanding of the animation materials and they come into contact with and grasp the details. According to statistics, there is still a large gap in animation practitioners, which shows that cultural creative talents. The demand gap will exist for a long time. Therefore, it is imperative to vigorously develop the talent training of cultural and creative industries and transform the talent training model of cultural and creative industries. My country’s universities are based on the traditional subject classification as the center of the talent training model, which is far from meeting the industry’s demand for talents. The supply and demand of animation talents are in a serious imbalance. Therefore, there is an urgent need for a method that can solve the current problems. A new teaching model was born.

The teaching objectives of this model should focus on improving the following three aspects of students: professional knowledge, ability requirements, and quality requirements. Project-oriented and task-driven and project-based teaching is implemented. Make full use of school-enterprise cooperation projects to connect the production process with the teaching process, transform the teaching process into a production process, and transform the

teaching goal into a production goal, and learn by doing, so as to optimize the teaching value and teaching effect. The 3D animation modeling design courses of some colleges and universities only arrange students to learn simple software knowledge, but do not allow students to master the knowledge of art. This results in the lack of artistic appeal of the 3D animation models produced by some students. This model is in the development of 3D animation modeling. The course training program focuses on cultivating students’ hands-on and creative abilities and guides students in deep learning based on projects, from skill learning to creative thinking training and strengthen students’ thinking ability.

3. The Implementation Strategy of the New Teaching Model

This model keeps pace with the times to meet the needs of the modern market. It combines introduction to animation, color composition, color psychology, composition basis, spatial perspective, animation scene design, and visual art design-related theories to form the theoretical basis for the major. The curriculum system and the basic art knowledge of Fangu students provide students with copying and simple creative abilities, laying a solid foundation for the next step of learning. A more scientific animation course mechanism has also been created, and a common teaching institution has been established with animation derivative manufacturers, animation exhibition organizers, and other parties to cultivate the core skills of students by understanding the typical product projects in the enterprise [2]. Continuously improve students’ enthusiasm for animation design and production. Students are required to combine the characteristics of subjects, use modern educational technology skillfully, build their own teaching process, and have their own research and insights into information teaching [3].

“There is Bole in the world; then, there is Chollima, and Chollima is often there, but Bole does not often have.” Not only do we need to hire talents with high academic qualifications and high comprehensive literacy but also we need to broaden our horizons and hire those with rich practical experience. Teachers will guide students to actively discover problems, find relevant knowledge points, actively learn and use all kinds of surface knowledge that they have mastered to think deeply, abstract new and appropriate solutions, encourage students to take the initiative to practice, guide students to reflect, summarize and combine, and stimulate the desire and initiative of the next creative activity. Mutual cooperation enables students to transform from educating consumers to co-creators of teaching and learning, perfecting a new platform for collaborative learning, and adopting a teaching model that combines production, learning, and research so that students can learn according to their own interests and hobbies so that talents can be reasonably obtained. The distribution of sex promotes the prosperity of the animation market, in order to effectively enhance the teaching effect. The core curriculum of the animation design major based on colleges and universities is to cultivate students’ information processing ability and

TABLE 1: Questionnaire recovery status.

Class	Number of people	Fraction	Percentage (%)	Average
Experimental class	10	90–100	20	82
	15	80–89	30	
	15	70–79	30	
	10	60–69	20	
	0	<60	0	
Control class	5	90–100	10	74
	16	89–89	32	
	15	70–79	30	
	10	60–69	20	
	4	<60	8	

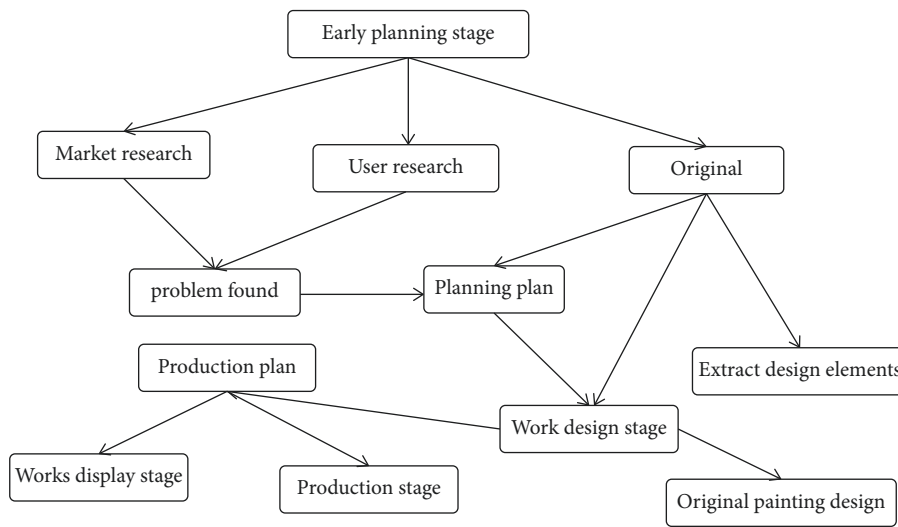


FIGURE 1: The basic teaching links and practical content of the course.

compare the two teaching modes to promote the unit testing of colleges and universities. Table 1 shows the recovery of a school’s test questionnaire (see Table 1).

It can be seen from the table that the excellent rate of the experimental class reached 54%, and no one failed; while the excellent rate of the control class reached 43% and the number of failed 8%. Judging from the average scores of the two classes, the experimental class has an average score of 82, while the control class has an average score of only 74. The effect is obvious.

Combined with successful cases of influential commercial animation works and their derivatives development, organize them into teaching materials. For example, the derivatives’ development of the “phenomenal” work “Journey to the West: The Return of the Great Sage” in the summer archive in 2015 was not prepared in the early stage, and the variety and output of the derivatives were not as good as consumer demand. In the later stage, the production and sales of derivatives will be carried out through online crowdfunding and authorization [4]. The fundamental point of the animation peripheral design market is consumers [5]. Move the classroom to the animation design industry, realize a seamless connection between teaching and animation

industry, and cultivate students’ independent creative ability. Teachers will carefully explain to students the pros and cons of virtual and physical display, allowing students to freely choose the display method, and at the same time, let students participate in animation exhibitions to learn more about animation design, production, display, etc., so that they can be used in the design of animation derivatives. In the process, more inspiration was obtained, which laid a good foundation for the design of future animation deactivate, as shaown in Figure 1.

The first is the project team formation stage. Teachers should organize teams according to project needs, students’ knowledge level, and industry conditions. The second is the preliminary planning stage. It focuses on workshops and group counseling and flexibly guides students to capture design inspiration through the Internet, data, and field investigations. The third is the stage of work design; teachers should not only guide students to remove the appearance and original painting design but also need to consider cultural design, functional design, material design, model production, cost budget, packaging design, and other factors. Use animation design to improve students’ abilities in all aspects.

4. Discussion

Today's digital technology updates are accelerating, and the school's orientation is still following the traditional "elite education" school-running philosophy and "academic" talent training model, avoiding new technologies in talent training that will restrict the development of innovation and entrepreneurship of the profession, and supporting facilities for animation teaching in colleges and universities. The relative lack of hardware equipment and software equipment cannot accurately reflect the current technological trend of the frontier development of professional technology and, therefore, cannot achieve efficient docking with the actual design work requirements in the future [6]. The teaching and application of multimedia information technology can be multifaceted, rather than simply showing pictures and watching videos, etc. However, the unreasonable teaching and application of multimedia information technology will cause the abuse of information.

There are still some shortcomings and problems in the information teaching process of animation major, especially in the information teaching ability of animation major teachers. Some teachers only arrange for students to study theoretical knowledge and ignore the arrangement of practical courses. They are not connected with the learning content of other courses when they teach animation professional classes, which is very unfavorable for the future development of students [7]. In order to better meet the needs of this major, media equipment can be used to integrate theoretical knowledge, basic sketch modeling, design sketches, and other content, with pictures and video playback and other means to attract students' attention [8, 10]. The teaching of university art practice courses and the development of socialist economic management practices with Chinese characteristics are also rarely directly related development of socialist economic management practices with Chinese characteristics are also rarely directly related [11, 13]. The practical courses of program design are almost on study, and it is impossible to grasp the trend and essence of the development of animation professional education in modern society [14, 15]. Therefore, it is impossible to carry out effective teaching activities in the actual teaching process to improve the quality of animation design and production professional teaching. Constantly compressing theoretical knowledge that should be explained carefully and explaining the theory roughly, students design without a comprehensive understanding, which directly affects the overall effect of teaching.

Evaluation of the teacher or the cooperative enterprise and the process evaluation are very few. The teacher-student ratio in domestic universities is seriously unbalanced, and it is difficult for teachers to give effective guidance and process evaluation one by one in a limited class [16]. The domestic animation industry started relatively late, and animation education is also very late. There is still the problem of too slow progress in the promotion of professional teaching, and the technology in all aspects is not very mature. The long-term cramming-style teaching and summative evaluation have made most students accustomed to relying on the knowledge of teachers.

5. Conclusion

Through practical data and student feedback, the validity and feasibility of the application of animation peripheral design ability in animation teaching and thinking skills are verified. Construct a reasonable animation design curriculum system, actively promote teaching reforms, innovate teaching concepts, improve teaching content, improve teaching methods, strengthen school-enterprise cooperation, and cultivate more practical talents, so as to enhance students' interest in learning professional knowledge. Complete the connection between theory and practice to improve professional level and innovation ability.

In the teaching management of ordinary colleges and universities, most comprehensive universities adopt a unified educational administration management mode of "arts, science, and engineering," which limits the animation derivative design courses that rely on practice to the classroom. The long-term cramming-style teaching and summative evaluation have made most students accustomed to relying on the knowledge of teachers.

Data Availability

The datasets used and/or analyzed during the current study are available from the corresponding author upon reasonable request.

Conflicts of Interest

The authors declare no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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