INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN PROGRESSIVE EDUCATION & DEVELOPMENT

OPEN ACCESS JOURNAL

Vol 15, Issue 1, (2026) E-ISSN: 2226-6348

Innovative Research of Cultivate Path for Digital Media art Students of Wu Han QingChuan University

Xu Ming Ming[1], Fauzi Naeim Mohamed[2]

[1]City Graduate School, City University of Malaysia, Menara City U, 46100 Petaling Jaya, Selangor, Darul Ehsan, Malaysia, [2]Universiti Kuala Lumpur , Jalan Sultan Ismail, 50250, Kuala Lumpur, Malaysia

*Corresponding Author Email: 520mmamm@163.com

DOI Link: http://dx.doi.org/10.6007/IJARPED/v15-i1/27546

Published Online: 02 February 2026

Abstract

Digital art is a new speciality in which artistic and technical are combinative. it cultivated plenty of talents for the industry of digital design. Recently. Reform measures of digital arts continuously pushed among the universities and have promoted the management and development of subjects. therefore reform creative of digital arts specialty were continuous deepened as well. The papers reviewed the relationship between the innovative cultivation of digital media art Discipline collaboration , school-enterprises integration model and sharing of production and research resources. It analyzed a realistic programme that Cooperative cultivation of digital media major on Full vision and multiple angles. And done data analysis and path exploration. This paper embodies the high academic level and popularization value.

Keywords: Digital Media Art, Discipline Collaboration, School-Enterprises, Course Sharing

Digital media art is an important emerging classification of which artistic and technical of a new era. and deduced the important character of the Internet plus times. With the developing of new digital technologies, some traditional disciplines have also extended to integrate with "digital technology" to form several comprehensive disciplines with intersecting characteristics. Especially it was the subjects domain of visual design. These subjects both need development of the discipline collaboration(Sun,2020). Digital media art has the character of a wide gap and interdisciplinary. And which has distinctive features in the subject's collaboration. This requires colleges and universities to think about how to train multi-disciplinary talents to adapt to regional economic development. this paper has discussed innovative paths from several aspects.

Introduction

Research objective

Recently. Universities have been affected by the policy of Some opinions on deepening the integration of industry and education. The digital media-related majors in many universities are in the mechanism construction of interdisciplinary production-education collaboration. It exhibited exploration and practice for multiple reasons. And got good grades(Kong,2020).

However. To see from depth multilevel perspective. There still existed some restricted factors. for example.Traditional subjects the antagonism of classification. Research angle of researcher. And benefit distribution between collaborators. All of them restrict the development of discipline coordination to different degrees. Therefore. first there is a need to be characterized by innovation. And break the past subject's mind of narrow . it explored the teaching mechanism of cooperation between production and education from width depth and accuracy.

Research Framework

Problem Statement

In summary, Digital media art belong to across-subjects, specially in today's era of rapid advancements in computer graphics and artificial intelligence. And need to to develop in conjunction with other disciplines.But it has the deficiency of the 3 aspects, first, unclear technical interdisciplinary objectives.Under the influence of an expanding student population and faculty shortage, some digital media arts disciplines have unclear curricular integration and interdisciplinary goals, or courses that are not related to digital media majors, to arrange those professional teachers who have been eliminated over time. Such courses are not linked in the structure of professional knowledge, and have no permeability and extension with related majors, so they can not form an interdisciplinary direction, or the interdisciplinary direction is not clear, and they lose the meaning of interdisciplinary. Second,The teaching contents and teaching materials of interdisciplinary-courses lack depth and moderation. In the digital media art major, there are many interdisciplinary courses and interdisciplinary technologies, such as Environmental Art Design, Product Design, and about the same interdisciplinary-courses.The focus and technology interdisciplinary of the same technology teaching in different curriculum contents are also different, and the depth and moderation of technology teaching also deviate from the teaching objectives. Third, The application of big data technology is not deep. Under the influence of the internet, the full application of big data technology in digital media art can optimise the teaching method and promote the informatisation process of teaching technology. Originally, the digital media major should be able to give full play to the advantages of internet big data, but due to the influence of teacher structure, leadership concept, management mode, incomplete equipment and other factors, at present, the application technology of big data is deeply applied and can't reach the level of across-discipline collaboration (Tong, 2021).

Literature Review

Digital art is a new speciality in which artistic and technical elements are combined. It cultivated plenty of talents for the industry of digital design. Recently. Reform measures of digital arts have been continuously pushed among the universities and have promoted the management and development of subjects. In 1972, Eisner, using integrated approaches, encouraged students to challenge established ideas, concepts and ways of making, to resist stereotyped visions of the world and to break boundaries. Art-based learning illuminates gaps and limitations in current thinking, helping students reorganise interdisciplinary frameworks to bridge the gaps between what is known and what is yet to be created(Eisner,1972). Jovuta F Punzalan mentions Art has long been considered part of the human affective experience and needed by our young people as a medium for safe expression, communication, exploration, imagination, cultural and historical understanding(Jovita F. Punzalan, 2018). Many countries are restructuring for the future and are adopting arts education as part of their core curricula. Sweden, for example, has redesigned its arts program as an essential

component for developing student well-being. Another country that incorporates the arts in its curricula is Japan, which emphasises craftsmanship in school to cultivate excellence in the workplace. Teaching expressive arts, particularly at the elementary level, enables the Japanese society to develop greater tolerance, problem-solving skills, and an appreciation for aesthetics, creativity, and decision-making in its students(Lindstrom,2008).

Three-Levels Theories of Discipline Collaboration

famous educator Sukhomlinsky said,"leading a school is first of all the leadership of educational thought. Secondly. It is also the leadership of educational administration"(Sukhomlinsky,2010), he pointed out that the theory is the spirit of talent cultivation. The essence and purpose of the concept of three-level cooperative training is to establish student's goals fundamentally. Consequently. Consolidating their professional foundation. Cultivate talents with unique insight and solve practical problems. Digital art includes visual design. Interaction design and animation design that big design ideas. basic lessons of art occupied 80 per cent of all lessons in the teaching process. For example. Major of Digital media art and major of film photography. Major in computer animation and major of industrial design . it all overlaps. And also show the importance of collaborative development in the artistic lessons. The cultivated goal is enabled to do design and exploit work by students. Such as interaction design, internal development and game production (Gu&Liu,2019).

Hypothesis

Four Semesters Systems of Cross Lessons

Based on three-level theories of discipline collaboration. and innovated curriculum system: in the first four semesters. Lessons of major basis and the other lessons of major general combined lessons-group to cross cultivate. The last four semesters. Lessons of professional improvement and lessons of innovative entrepreneurship to propel deeply. Generally. Lessons of digital art exist in two universalities: traditional media knowledge and media history research. Such as film and television introduction, communication, film and television copy planning and other theoretical and academic courses(Ma,2010). in addition. It included computer media knowledge and graphic image production and development courses . in the cultivation processing of subjects cross. The philosophy of the Humanities and Social Sciences guides students to a deeper understanding of subjects that can be embedded in science and technology, or the integration of logical thinking into poetic humanistic feelings(Li,2015). there is also emphasized practically of the courses. .besides interdisciplinarity. Specialities can be targeted and pinpointed for their characteristics. In addition, the personalized, flexible and wide-ranging characteristics of cross-curricular courses fully meet the learning interests and career-planning needs of different students.

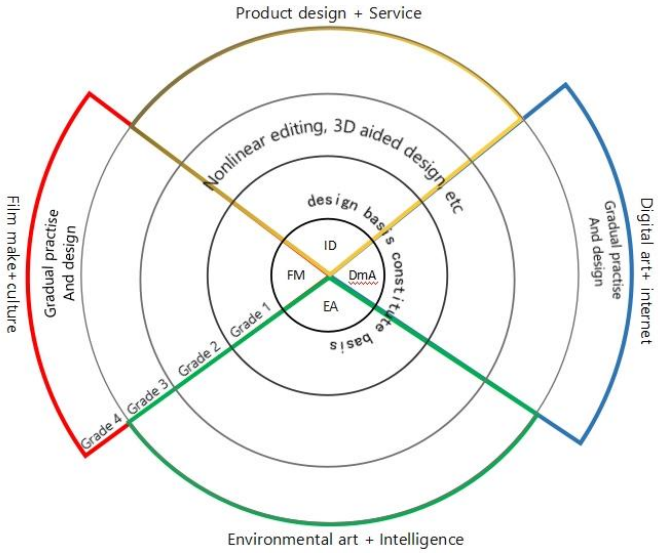


Figure 1. QingChuan University Cross-curricular System for Design and Media Majors

Theoretical Proposal of School Enterprises and Course Sharing

Developing an all-Media + Interactive Teaching and Learning Format

In addition to the cultivation concept and curriculum system. it is also very important to promote the informatization of the curriculum using teaching and learning with all-media coverage. The informatization of the curriculum is also a very important part(Wang,2020). Numerous universities in the United States are at the forefront of the world in teaching management informatization, and universities in many European countries have also invested a great deal of energy in the construction of books database informatization and other aspects. The diversification of teaching content and means is also an important factor in attracting students to enter the classroom consciously. For example, through this epidemic, we have seen the originally fragmented Internet-based teaching methods condense into a unified and holistic teaching paradigm. Major teaching platforms such as Superstar.com and Tencent Classroom have extracted the essence of the digital classroom and provided students with a very large number of quality teaching resources. Given the diversified characteristics of the digital media class itself, cooperation with different majors will form a cross-fertilization teaching system, and the exchange of teachers and students with different professional backgrounds will expand the breadth of the profession to a large extent.

Establishment of a Multi-Disciplinary Integration of Competition Guidance Forms

The so-called industry-teaching synergy. that is focusing on the combination of theory and practice teaching and learning, with real projects to strengthen the purpose of teaching in a common way.However, due to the foundation and experience of the students, the choice of directly integrating into the classroom by way of project outsourcing is not realistic, and actively organizing disciplinary competitions is one of the practical channels. Given the cross-cutting and extension characteristics of digital media-related disciplinary events, coupled with the cultivation of students' diversified disciplinary knowledge is crucial. Dividing course groups by faculty research backgrounds and implementing a multi-disciplinary integration of competition guidance mechanisms. For certain commercial or academic events with cross-disciplinary backgrounds, the most content-compatible faculty guidance group is formed, and each faculty member provides step-by-step guidance to the participating students in order of their research perspectives, which creates a situation where the student’s works are

integrated with the strengths of various disciplines. At the same time, it highlights the complementarity of disciplines and enhances the competitiveness of the competition. Ultimately, it taps into the students' enthusiasm for learning the speciality and improves their practical ability.

Building a Green Channel for Talent Cultivation

It is mainly a program to cultivate and explore talents with companies . according to the employing standard of companies in response to the current imbalance between the difficulty of employment for college students and the difficulty of recruiting for enterprises(Wang,2010).We invite the industry to organize regular job fairs in an all-media format. Cooperative enterprises help institutions to introduce outstanding enterprises for one-on-one specialized assistance, so that outstanding students can stand out. We use students' extracurricular time to hold special training for talent selection, and after the initial assessment by enterprises, we organize the students who have passed the assessment to carry out project practice, thus making it easier for students to meet the standards of enterprises' employment.

Helping Students to Develop Innovation and Entrepreneurship

Creating the "dualization" standard for project incubation and achievement transformation.Encourage students to take courses on innovation and entrepreneurship, and even support students to form teams to run their own self-media businesses. Then through the market resources of enterprises and the scientific research strength of institutions to work together to help students improve entrepreneurial ideas, program planning and business plans, and if necessary, mobilize technical force to help students to impact the provincial and even national competitions.

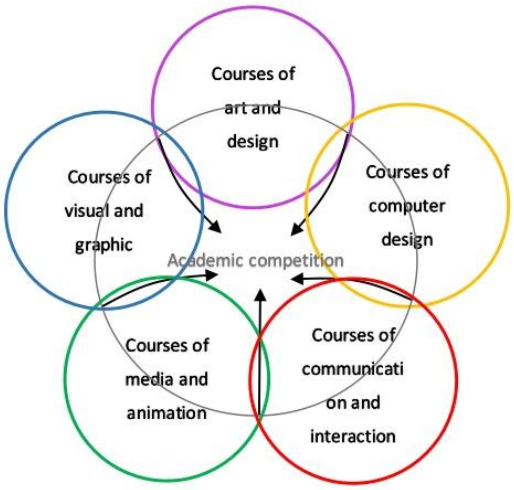


Figure 2. Course Multidisciplinary ’S competition mechanism

Research Methodology

Experiment Design

The final result of this collaborative innovation between digital arts and other majors will have the following experimental design derived. Which utilized it to inspect the study results of the students. The results of the discipline collaboration study designed to identify

motivation and incentives, "risks and problems of modern students in connection with the collaboration aspects of learning" can be used as a tool to improve the effectiveness of the educational process in the framework of pedagogical innovations of higher education. Innovative approaches to indistance learning with the direction of the vector "Arts disciplines share courses" based on self-development and self-realization in the creation of art products under the patronage and tutoring using digital, media and information technologies(Zakharova&Vlasova,2020). This concept contributes to professional self-realization, creative and professional development, and harmonious formation of the student's personality. The core issues of co-innovation are based on a comparative analysis of several artistic professions (aesthetic, culture, thinking method, science and technology, innovation and practice), and these approaches are the basis for personal and all-round development and interprofessional foundation of the digital media arts subjects, which can be addressed in the context of education in informational and digital conditions based on internally motivated activities(Yarullina&Abdrahmanova,2020).

Based on the above case. This research utilized an experimental design. Preference to experimental study was on the premise that verification of the hypothesis that guided the study necessitated Experimental data need to be extracted from two majors in our university to verify the difference between before and after co-innovation. This research objective is the students are third and second -year undergraduate of digital media art and third and second year undergraduate in product design. In the past three years. They've used some of the course synergies to raise the importance of their grade and capacity(Stephen&Jessica,etc,2020).The technologies to support visual activity in the discipline collaboration of design students creating a visual environment have been developed . they were needed to expand their knowledge in addition to their various abilities.

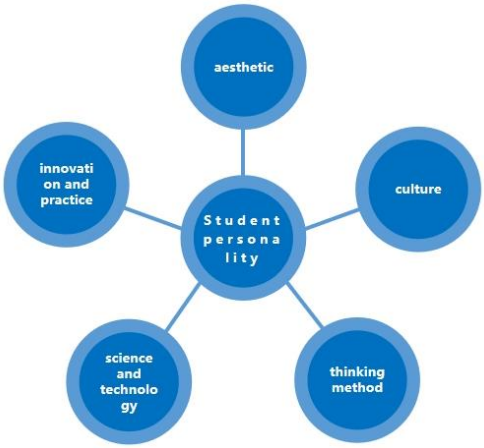


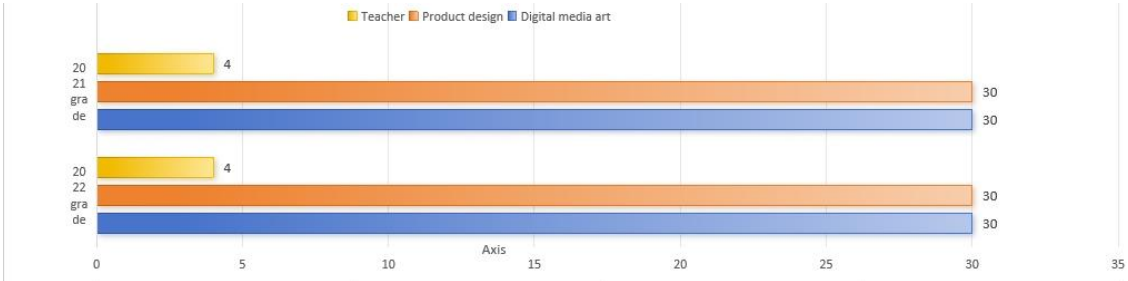
Figure 3. Formation of the student's personality in the course synergies system

Data Collection Procedure

This university used experiments methods of data collection at the same time by this case. including surveys, questionnaires by the students, interviews with teachers, and in-class observations. These two specialities provide a control group and an experimental group respectively. Every major random extracted 30 students as a digital art group. And extracted 30 students from the product design group. Class records of academic progress are also utilized. Students with average scores between 80 and 90 on consecutive test pieces before and after subject synergy were selected. This was done to ensure that participants had similar

levels of academic achievement. We carried out control to age variable of the sample before the experiment. Participants were between the ages of 18 and 21(Samuel&Stephen,etc, 2023).

Additionally, a combination of in-depth interviews was utilized in order to assess the outcomes of the development of the researcher, The study also collected instructor feedback, although it did not analyze the impact that this feedback had on the students' learning outcomes, But this feedback has implications for the analysis of data results.8 teachers participated in the survey. The primary data collected came from face-to-face interviews with internal teachers. Purposive sampling was used by the researcher to determine the participants in the interviews. Data saturation is important for sample size estimation. The literature suggests a maximum sample size of eight for in-depth interviews. The diversity of the sample population was achieved by having teachers from different professional backgrounds. They had considerable professional experience in instructional technology and subject integration. Participants signed consent forms and set dates for interviews; face-to-face interviews were conducted(Jagan& Soumya,etc, 2023). The results of the study were promising, but future studies are recommended to expand the size of the study population. Overall, the study provides valuable insights into the use of discipline collaboration in a digital media course and lays a foundation for further research in this area.



	2022grade	2021grade		
Teacher	4	4		
Product design	30	30		
Digital media art	30	30		

(a) (b)

Figure 4. There are three figures illustrated here.

Data Sampling

Based on the analysis of this samples. after we could certainly carry out a disciplined collaboration mechanism. in the group of 20 students. Grade of the final term and Grade of the usual term are both significantly improved. As shown in the table comparing the frequency analyses of the level of course integration of the 21st-grade students with the level of course integration of the 22nd-grade students. Except for this major. The Other design courses are increasing significantly. Other courses in the digital media art program increased from 20.0% to 33.3%. Which is a valid percentage increased from 20.0% to 33.3%. And frequency enhanced 7 per cent.

Table 1
Class of 2022 Discipline Collaboration Frequency Analysis Form

Courses of major 2022							Courses of major 2021						
Your major			Frequency	Percent	Valid Percent	Cumulative Percent	Your major			Frequency	Percent	Valid Percent	Cumulative Percent
Digital media art	valid	Only courses in your major	24	80.0	80.0	80.0	Digital media art	valid	Only courses in your major	18	66.7	66.7	66.7
		Your major and other major	6	20.0	20.0	100.0			Your major and other major	12	33.3	33.3	100.0
		Total	30	100.0	100.0				Total	30	100.0	100.0	

Data Analysis

Next we did data analysis to collect samples In the SPSS software. Which are choice fixed two majors. in the other sharing mode aspect. and is statistics from competition awards. We found that in the provincial-level competition aspect. The Percentage of digital media art increased from 10.0% to 20.0% previously. Competition rate increased from 33.3% to 66.7% previously. in the national-level competition aspect. The Percentage of digital media art increased from 3.3% to 13.3% previously. Competition rate increased from 12.5% to 50.0% previously. Among them, the proportion of provincial-level awards in the total number of events increased from 5.0% to 10.0%, and the proportion of national-level awards in the total number of events increased from 1.7% to 6.7%.

Table 2
Cross-tabulation Analysis of Frequency of Competition Awards for Students in the Class of 2022

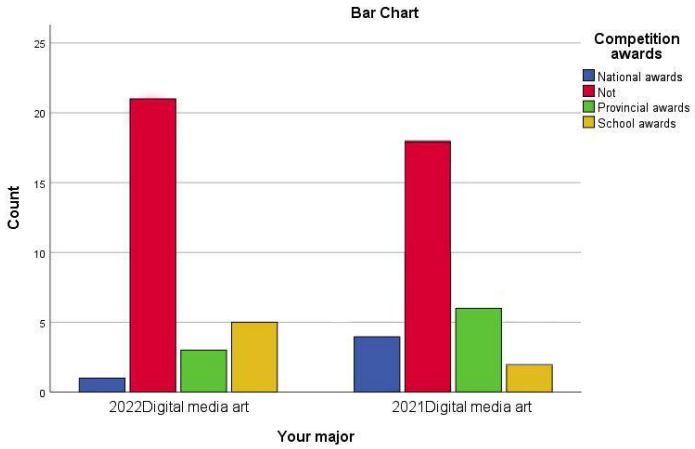
Your major * Competition awards Crosstabulation

		Competition awards				
Your major		not	School	Provincial	National	total
Digital media art 2022 grade	count	21	5	3	1	30
	Expected Count	15.5	6.0	4.5	4.0	30.0
	% within Your major	70.0%	16.7%	10.0%	3.3%	100.0%
	%within Competition awards	67.7%	41.7%	33.3%	12.5%	50.0%
	% of Total	35.0%	8.3%	5.0%	1.7%	50.0%
	Residual	5.5	-1.0	-1.5	-3.0	
Digital media art 2021 grade	count	18	2	6	4	30
	Expected Count	17.5	4.0	4.5	4.0	30.0
	% within Your major	60.0%	6.7%	20.0%	13.3%	100.0%
	%within Competition awards	51.4%	25.0%	66.7%	50.0%	50.0%
	% of Total	30.0%	3.3%	10.0%	6.7%	50.0%
	Residual	0.5	-2.0	1.5	0.0	

Total	count	31	12	9	8	60
	Expected Count	31.0	12.0%	9.0%	8.0%	60.0
	% within Your major	51.7%	20.0%	15.0%	13.3	100.0%
	%within Competition awards	100.0%	100.0%	100.0%	100.0	100.0%
	% of Total	51.7%	20.0%	15.0%	13.3%	100.0%

Experiment Results

We observe from the bar chart table that digital media art students in class 2021 won significantly more awards than class 2022 in terms of national competitions and provincial competitions after the integration of the curriculum. There is a slight decrease in the awards for school-level competitions, indicating a decrease in the percentage of students participating in this award. Overall, Digital Media Arts has expanded its cultivation pathway under the disciplinary collaborative construction and curriculum sharing model. The quality of teaching has been improved.



After the text edit had been completed, Analyzing the results from the data in the previous section of the study, the frequency counts of disciplinary collaborations in the digital media arts majors of different grades clearly showed elevated results after synergizing with other disciplines. The frequency cross-tabulation analysis of the results of the disciplinary competitions of the digital media arts majors at different levels after the university-enterprise collaboration and curriculum sharing showed that the frequency counts of the awards showed an increase in the number of awards and the level of the awards. This study proves that digital media arts majors should carry out a reform of the innovation pathway, and this reform should be carried out in three aspects: disciplinary synergy, school-enterprise cooperation and curriculum sharing.

Conclusion

In the construction and implementation of the industry-teaching synergy mechanism for digital media majors, the cultivation concept, curriculum system, teaching form and guidance mechanism are the main parts of the synergistic education model, and the process of school-enterprise integration is the test of the results of industry-teaching synergy. The creation of a

digital asset platform is the supplement and improvement of the results of industry-education-research. The three parties should work closely together and strive to give full play to the special functions of the profession in talent training, discipline research, innovation and entrepreneurship, and service to society. With the guideline of "innovative advantages, resource sharing, mutual benefit for teachers and students, and collaborative development", we will seek to build a new path of a win-win situation between the university and society.

Acknowledgement

This research was conducted and completed under the supervision of Dr Fauzi, and I would like to thank the professor for his guidance and my fellow PhD classmates for their support.

References

Eisner, E. (1972). Educating artistic vision. Macmillan.

Gu, D., Liu, Z., & Zhang, Z. (2019). Research on cultivation of innovative applied talents by integration of digital media industry and education. Journal of Digital Media Education, 101–102.

Kong, L. (2020). Cultivation mode of digital media art talents in the all-media era. Journal of Art Education Research, 102–103.

Li, P. (2015). Cross-disciplinary innovative talents industry–university–research cooperation cultivation explorations. Higher Education Forum, 46–47.

Ma, Z. (2010). Discussion on the cultivation mode of innovative digital media professional art talents. Art Education Studies, 168–201.

Nderu-Boddington, E. (2008). Arts education and students' perception.

Ndawula, S., Nabulo, J., & Namutebi, E. (2020). Animated images and vocabulary development among lower primary learners. American Journal of Education and Information Technology, 4(2), 40–20. https://doi.org/10.11648/j.ajeit.20200402.15

Punzalan, J. F. (2018). The impact of visual arts in students' academic performance. International Journal of Education and Research, 6(7). https://www.ijern.com/journal/2018/July-2018/10.pdf

Samuel, A., Kyenkyehene, S. A., & Emmanue, M. K. (2023). Interactive technology in physical education classroom: A case of a Ghanaian college of education. American Journal of Education and Information Technology, 7(2). https://doi.org/10.11648/j.ajeit.20230702.11

Sun, A. (2020). The innovative path of industry–university collaboration-integrated practical journalism talent cultivation mode. Journal of Journalism Education, 81–82.

Sukhomlinsky, V. A. (2010). Sukhomlinsky's selected thoughts and essays on moral education and management in schools, 12(1).

Wang, S. (2020). Four key features of digital media professional training in the United States. International Art Education Review, 56–57.

Wang, Y. (2010). Industry–university–research cooperation to build an innovative talent cultivation system for digital media art majors. Art and Design Education, 158–159.

Yarullina, L., Shigapova, D., & Abdrahmanova, L. (2020). The problem of personality developing technologies in the training of future specialists of the architectural and construction sphere. IOP Conference Series: Materials Science and Engineering, 890(1), 012171. https://doi.org/10.1088/1757-899X/890/1/012171

Yuan, Y., Wu, J., & Zhang, X. (2021). Research on interdisciplinarity teaching of digital media art under big data. Journal of Physics: Conference Series, 1883(2). https://doi.org/10.1088/1742-6596/1883/2/022014

Zakharova, N., Vlasova, I., & Kartavtseva, O. (2020). Technologies of tutorial assistance in the visual activity distance education for bachelors-designers. E3S Web of Conferences, 210, 22014. https://doi.org/10.1051/e3sconf/202021022014

Balakrishnan, J. M., & Chavan, S. M. (2022). Programmers' perspectives on the use of previsualization in the design process of Three.js web animation. American Journal of Education and Information Technology, 7(1). https://doi.org/10.11648/j.ajad.20220701.11