ORGANIZATIONAL CLIMATE UNDER DIGITAL TRANSFORMATION OF CHINESE PAINTING ART EDUCATION IN UNIVERSITIES UNDER LIAONING PROVINCE

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ABSTRACT

The objectives of this research were: (1) to propose the organizational climate under digital transformation of Chinese painting art education in universities under Liaoning Province; and (2) to develop future wheels for organizational climate under digital transformation of Chinese painting art education in universities under Liaoning Province.

The research is qualitative research using Delphi technique and future wheel research. The key informants consisted of 18 experts for Delphi technique and 8 experts for Future wheel research. They were highly experienced academic administrators and education experts, and they were obtained by purposive sampling method. The instruments used for data collection were researcher, from open-ended interview form, and five-point rating scale questionnaire. The statistics used for data analysis were Median, Mode, and Inter Quartile Range.

The research results showed that: (1) the organizational climate of the digital transformation of Chinese painting art education in Universities under Liaoning Province had 10 dimensions and 60 variables (global trends within 3 years), including: innovation support, work support, work structure, work autonomy, leadership style, work commitment, social emotional support, management efficiency, technical support, and academic exchanges; and (2) the organizational climate of the digital transformation of Chinese painting art education in Universities under Liaoning Province had 16 dimensions (global trends in the after 3-6 years) ,

including: technological progress, strategic changes, employee abilities, employee skills, organizational culture, social changes, employee needs, market changes, public opinion, policy changes, organizational support, task design, employee autonomy, employee engagement, management practices, knowledge and collaboration; and (3) the future wheels of organizational climate of the digital transformation of Chinese painting art education in Universities under Liaoning Province had 5 dimensions (future 6- 9-year global trends), including: the emergence of new technologies, the improvement of education levels, the global economic environment, changes in social values, competition and cooperation.

Keywords: Digital Transformation, Organizational Climate, Chinese Painting Art Education

1. Introduction

The research background and significance lie within the context of the rapid digitalization sweeping through various sectors, including education. In line with the 20th National Congress of the Communist Party of China's goal of digitalizing education, this research delves into the critical juncture where educational and digital advancements intersect. The expansion of cloud, network, and terminal education systems has led to lowered costs, increased digital content, enriched forms, and smarter applications, pushing educational digitalization into a comprehensive phase.

National strategies, such as the "Belt and Road" initiative, cultural self-confidence, and educational modernization, underscore the importance of digital transformation. This transformative era necessitates educational institutions to adapt to digital management models, while simultaneously enhancing teacher enthusiasm and efficiency. The interactions between leaders and teachers, and among teachers themselves, play crucial roles in establishing harmonious climates that promote innovation and educational excellence.

The research practical significance becomes evident in its potential to enhance education quality and efficacy. By dissecting the organizational climate in Chinese painting art education, it unveils factors impacting teaching and research, thus enabling tailored improvement strategies. This not only fosters the development of outstanding talents but also aligns education with social needs and deepens its digitalization.

Furthermore, this research holds the key to understanding teachers' needs within the digital landscape, thereby informing performance management strategies that boost work enthusiasm and institutions' core competitiveness. Exploring organizational climate change

also unveils the application potential of digital methods in education, driving the field's innovation and development. Amidst these shifts, the research maintains a focus on preserving the essence of Chinese painting art education and exploring innovative paths that bridge traditional artistry with contemporary digital Instruments.

Considering the existing research gaps, especially in the realm of Chinese painting art education, this research offers a vital exploration of the interplay between education and digital transformation. The research sheds light on the organizational climate dimensions, structure, and characteristics, revealing their implications on teachers' and students' attitudes, behaviors, and learning outcomes. The anticipated outcome aims to provide recommendations for optimizing educational management and teaching practices within the digital landscape. By aligning institutions with the digital age's educational requirements, the research can bolster education quality, elevate learning outcomes, and inspire creativity.

In conclusion, this research strives to bridge the gap between Chinese painting art education and the digital transformation era. By offering insights into the organizational climate, the research aspires to refine education management strategies, enhance the quality of education, and contribute to the evolution of Chinese painting art education, thus reflecting the evolving digital age's educational landscape.

2. Research Questions

（1）What are the components of organizational climate under digital transformation of Chinese painting art education in universities under Liaoning Province?

（2）What are the future wheels for components of organizational climate under digital transformation of Chinese painting art education in universities under Liaoning Province?

3. Research objectives

1.to propose the organizational climates under digital transformation of Chinese painting art education in universities under Liaoning Province.

2.to develop future wheels for organizational climates under digital transformation of Chinese painting art education in universities under Liaoning Province.

4. Methodology

4.1 Research Design

This research adopts Delphi method and future wheel method for qualitative research.

Literature research: The researcher collected data from literature related to the organizational climate under digital transformation of Chinese painting art education in universities under Liaoning Province, and further obtained concepts and dimensions.

Delphi Technique Research: Interviews with educational experts using a semi-structured open-ended interview questionnaire based on Delphi techniques. Collect data from the interview results for statistics and screening until the results tend to be consistent. Obtain the components of the organizational climate under digital transformation of Chinese painting art education in universities under Liaoning Province.

Research using the Future wheel: The researcher used the Future wheel and organized an expert meeting to discuss and predict the global trend of the organizational climate under digital transformation of Chinese painting art education in universities under Liaoning Province. Global trends are analyzed and summarized into future wheels within three time intervals of 3 years, 3-6 years, and 6-9 years.

4.2 Key informants

This report analyzed the basic information of a group of 18 experts, including gender, age, educational background, position, work experience, and the nature of the universities they are affiliated with. In terms of gender, male experts (12 individuals) outnumbered female experts (6 individuals) with a ratio of approximately 2:1, possibly reflecting the gender distribution in the field. The age distribution showed that the majority of experts were aged 50 and above, followed by the age group of 40-49, while those aged 30-39 were the fewest, indicating that the group primarily consisted of middle-aged and older experts.

4.3 Research Instruments

The main instruments used in this research were: (1) Researcher; (2) Open-ended interview form; (3) five-point rating scale questionnaire.

4.4 Data Collection

The literatures in this research were mainly collected through libraries, the Internet, and personal collections. In order to ensure the accuracy and timeliness of the research results, researcher set the time range of recent literature in the past ten years (2003 to 2023).

The interview forms and questionnaires were distributed and collected in 3 rounds through face-to-face interviews and WeChat, which were sent by researcher to the interviewed experts. In order to arrive at the newer research data, the time range of interviews and communication with key informants when conducting interviews, surveys using the Delphi technique was within 2023.

Focus group discussion using the Future wheel research were conducted in an online discussion in which researcher and a group of key informants worked together to produce and record content. In order to arrive at the newer research data, the time range of communication with key informants when conducting interviews, surveys using the Future wheel research is within 2023.

4.5 Data Analysis

The researcher performed a content analysis of the collected data. The researchers used Delphi techniques. The Delphi method is based on a systematic procedure using anonymous opinions. Experts are not allowed to discuss with each other, only to establish contact with investigators. Through the investigation and analysis of the opinions of experts, the IQR of the two variables are both greater than or equal to 1.5, indicating that the opinions of the experts on the three variables have not tended to be unified. After repeated consultations with experts, the consensus of experts was finally reached. Finally, the researchers initiated a group discussion using the Future Wheels research, and concluded the global trend of research on the organizational climate of Chinese painting art education in colleges and universities in Liaoning Province under the digital transformation environment Future Wheels.

5. Research Results

The research procedures involved three sections.

Section 1: Result of Content Analysis of the organizational climate under digital transformation of Chinese painting art education in universities under Liaoning Province based

on relevant literature and related research. The researcher initially summarized eight key dimensions from the literature review through qualitative research methods.

Section 2: Result of opinions from expert interviews and questionnaires of Delphi technique on organizational climate under digital transformation of Chinese painting art education in universities under Liaoning Province for research objective 1. Researcher sent open-ended interview forms and 5-point scoring questionnaires to 18 experts for Delphi technique. Data collection was conducted through face-to-face interviews and WeChat. Through the survey of expert opinions, researcher analyzed that the IQR of the 3 variables is greater than or equal to 1.5, which indicates that the experts' opinions on the 3 variables do not tend to be unified.

After repeated consultations with experts, an expert consensus was finally reached on the 10 dimensions and 60 variables as follows:

(1) Innovation Support: there were 6 variables.

(2) Work Support:: there were 6 variables.

(3) Work Structure: there were 6 variables.

(4) Work Autonomy: there were 6 variables.

(5) Leadership Style: there were 6 variables.

(6) Work Commitment: there were 6 variables.

(7) Social Emotional Support: there were 6 variables.

(8) Management Efficiency: there were 6 variables.

(9) Technical Support: there were 6 variables.

(10) Academic Exchange: there were 6 variables.

Section 3: Future wheels of global trends for organizational climate under digital transformation of Chinese painting art education in universities under Liaoning Province for research objective 2.

First order: within three years

Second Order:3-6 years

Third Stage ： 6-10 years

Figure 1 The Future Wheels of Global Trends for Organizational Climate Under Digital Transformation of Chinese Painting Art Education in Universities Under Liaoning Province

In conclusion, these dimensions interplay and influence each other, collectively molding the current and future trajectory of the global socio-economic landscape. Addressing the challenges and leveraging the opportunities within these dimensions necessitate global collaboration, adaptive flexibility, and responsible decision-making.

6. Discussion

The discussion will be presented as follows:

6.1 Discussion about major findings of objective 1

The ten dimensions of organizational climate include socio-emotional support, work structure, motivation, autonomy, work support, management efficiency, work goals, innovation

support, work engagement and communication. The research finding were found as such because of extensive data collection on the organizational climate under digital transformation of Chinese painting art education in universities under Liaoning Province, and after the researcher categorized and sorted out the data, this research was completed after adjustments were made through Delphi technology by asking for the opinions and suggestions of experienced academic administrators and experts.

The research results are consistent with the findings of Ren Gaopeng's researcher "Research on the Reform of Art Design Teaching in the Era of Internet+" (2020). The integration of digital technology had brought more flexible and diverse teaching methods to Chinese painting art education. Through online courses, virtual studios, and other methods, students can learn and create across time and space, cultivating innovative spirit and practical abilities.

Yan Yu, Zhou Ji, and Jiang Wenxuan in their research "Innovative Model of Professional Teacher Training in Art Education in the Digital Age" (2018) emphadize the increasing role of teachers in the digital transformation.

Liu Xue's researcher "Research on the Current Situation and Countermeasures of Art and Design Education in Chinese Universities" (2016) suggests that the impact of digital transformation on higher art education is not limited to Chinese painting art. Globally, digital technology had been widely used in art education. Moreover, digital education had also led to changes in teaching assessment and feedback methods, which help guide student learning in a more personalized way.

Li Qingnv in her researcher "Research on the Problems and Countermeasures of Public Art Education in Universities in the New Era" (2022) believes that digital transformation also brings some challenges. Additionally, the uneven distribution of educational resources is a problem; some regions may not fully utilize the advantages of digital technology. These issues require efforts from policymakers, educational institutions, and researcher to resolve.

In conclusion, the current research findings resonate strongly with existing scholarship in the field, emphasizing the transformative impact of digital technology on art education. This wave of change has opened up new vistas of learning and creativity, while also necessitating proactive efforts to address associated challenges and inequalities. As we navigate this evolving landscape, the collaborative efforts of all stakeholders are crucial in shaping a thriving and balanced future for art education in the digital era.

6.2 Discussion about major findings of objective 2

In 1972, Jerome Glem introduced the concept of the "Future Wheel," which can be applied as a predictive tool for researchering the future trends in the organizational climate of Chinese traditional painting art education in universities within Liaoning Province under the climate of digital transformation. This Future Wheel provides art and design administrators with a forward-thinking perspective and aids in collaborative ideation. Employing Delphi data analysis, ten dimensions and twenty-one variables have been identified to facilitate the analysis for predicting future trends.

Future wheels to provide organizational strategy. Combining literature research, Delphi technique research and future wheel technique research, researcher developed future wheels of global trends for the organizational climate under digital transformation of Chinese painting art education in universities under Liaoning Province. There were 3 orders:

The first order had 10 dimensions (global trends within 3 years): innovation support, work support, work structure, work autonomy, leadership style, work commitment, social emotional support, management efficiency, technical support, academic exchange.

The second order had 16 dimensions (global trends after 3-6 years): technological progress, strategic changes, employee abilities, employee skills, organizational culture, social changes, employee needs, market changes, public opinion, policy changes, organizational support, task design, employee autonomy, employee engagement, management practices, knowledge and collaboration.

The third order had 5 dimensions (global trends after 6-9 years): Emergence of New Technologies, Improvement of Education Levels, Global Economic Environment, Transformation of Social Values, Competition and cooperation.

The findings of the research were identified as a result of the use of a combination of research methods such as literature research, expert interviews and Delphi technique, with the findings identifying multifaceted trends through a future wheel approach. This robust methodology ensures that the identified dimensions are based on a thorough analysis of existing knowledge and expert opinion, resulting in a comprehensive and accurate reflection of the changing organizational climate. The findings thus provide a strategic roadmap to address the evolving landscape of digital transformation in Chinese painting art education, thus ensuring its adaptability and continued relevance.

These findings are consistent with Qu Fei’s (2021) perspectives on blended learning ecosystems, personalized learning experiences, and interactive and immersive creation.

Numerous studies echo and reinforce these future-oriented viewpoints:

Chen Jiaxin and Liang Dapeng's (2019) research "Digital Innovation and Chinese Painting Art Education" underscores the potential of digital technology in enriching art education and cultivating new artistic forms.

He Xin's (2021) researcher "Integration of VR Technology and Art Design Teaching" highlights the revolutionary impact of VR technology in enhancing interactive and experiential aspects of art education.

Xu Jing's (2022) research "Exploration and Practice of VR Technology in Chinese Painting Education" demonstrates the successful integration of VR technology into Chinese painting education, offering immersive learning experiences and creative exploration.

Overall, the findings of the research are of great guiding significance to educational policy makers and art education practitioners, helping them to effectively respond to the opportunities and challenges brought about by digital transformation and to promote the continuous innovation and development of Chinese painting art education.

7. Recommendations

7.1 Recommendation for Policies Formulation

Faculty Training and Digital Literacy: Conduct regular faculty training to enhance educators' digital proficiency and teaching methods. Encourage teachers to acquire new skills to provide creative and interactive educational experiences for students.

Equitable Distribution of Digital Educational Resources: Ensure equitable distribution of digital educational resources among different regions and institutions to bridge the digital divide. Support remote areas in accessing high-quality education through digital means.

Privacy Protection and Security Measures: Prioritize student and teacher privacy protection during digital transformation, ensuring information security on digital education platforms. Develop regulations and policies to govern the collection, use, and storage of digital education data.

7.2 Recommendation for Practical Application

Innovative Teaching Methods: Encourage universities to adopt innovative digital instruments and methods, such as virtual reality and augmented reality, to enhance student engagement and learning experiences.

International Collaboration and Exchange: Foster international collaboration and exchange in digital education, drawing insights from other countries' experiences and best practices to enrich local education content and methods.

Interdisciplinary Integration: Promote interdisciplinary integration, merging digital technology with traditional art education to nurture more creative and adaptable artistic talents.

Ongoing Research and Evaluation: Support continuous research and evaluation of the application of digital transformation in art education. Understand its real-world impact to continually refine policies and practices.

7.3 Recommendation for Further Research

Building upon Jerome Glen's "Future Wheel" concept and the identified phades and dimensions, further research can provide a deeper understanding of the future development of traditional Chinese painting art education in Liaoning Province's universities within the context of digital transformation. The following are additional research suggestions:

In-Depth Dimensional Analysis: Undertake deeper analyses of each phade's dimensions to explore their specific applications and impacts on art education. Examine how innovation support drives innovation in educational content and methods and how emerging technologies lead educational change.

Case Studies: Select universities in Liaoning Province as case studies for each phade. Investigate their practical experiences and achievements in digital transformation to provide concrete demonstrations of future trends.

Cross-Disciplinary Impact: Investigate how digital transformation promotes cross-disciplinary collaboration between art education and fields like technology and creative design, exploring the effects on students' innovation capabilities.

Sustainability: Analyze the opportunities and challenges for art education arising from digital transformation's sustainability. Develop strategies to ensure that digital transformation supports long-term educational quality and innovation.

Educational Policies: Examine the influence of digital transformation on art education policies. Formulate policies that support educational institutions in achieving successful digital transformations at different phades.

Student Participation and Feedback: Conduct comprehensive research on student engagement and feedback during digital transformation. Understand their perspectives on new teaching methods and instruments and assess the impact on their learning experiences.

In conclusion, further research can offer a more comprehensive and in-depth understanding of the future development of traditional Chinese painting art education in the context of digital transformation through case studies, in-depth analyses, and integrated approaches. Such research can provide educators, policymakers, and educational practitioners with more specific guidance and decision-making instruments.

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