Effectiveness of Knowledge Management in Art Major of Universities under Liaoning Province

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ABSTRACT

The objectives of this research were: (1) to explore the components of effectiveness knowledge management in art major of universities under Liaoning Province; (2) to propose guidelines for improving the effectiveness of knowledge management in art major of universities under Liaoning Province. The research was a mixed methodology research. Population was included 3852 professional instructors, educational administrators in art major from 23 colleges and universities under Liaoning Province. The sample size was determined by Krejcie and Morgan's table (1970), obtained by stratified sampling technique, totalling 351 professional instructors, educational administrators in art major. The 9 key informants were obtained by purposive sampling method. The instruments used for data collection were a semi-structured interview, a five-point rating scale questionnaire, and note taking by focus group discussion. The statistics used for data analysis were inferential statistics and descriptive statistics.

The research findings revealed that; (1) There were five components and 23 key variables of the effectiveness of knowledge management of art major in universities under Liaoning Province, which consisted of effectiveness management, organizational culture management, knowledge-based organization construction, information technology management and human resource management; and (2) There were total 23 managerial guidelines for effectiveness of knowledge management of art major in universities under Liaoning Province.

Keywords: Knowledge management, Art major, Liaoning art major knowledge management

1. Introduction

The influence of colleges and universities is necessarily related to the degree of application of knowledge management. Whether it is the University of Athens in ancient times, the University of Bologna in the Middle Ages, the University of Paris, or the modern University of Berlin, their effective activities are all related to knowledge management activities such as knowledge selection, preservation, and management.

General Secretary Xi Jinping clearly pointed out in the report of the 20th National Congress that we must adhere to the priority of education development and the leadership of talents, accelerate the construction of a country that is strong in education and talents, comprehensively improve the quality of independent training of talents, and focus on cultivating top-notch innovative talents (Lin Huanxin:2022). The Liaoning Provincial Department of Education communicated and studied the spirit of the 20th National Congress of the Communist Party of China, deployed the entire province to communicate the implementation of the education system, deeply understood that education is a national plan, promoted the connotative development of higher education, and made new breakthroughs for the overall revitalization of the Northeast region. The "Double First-Class" construction has put forward higher requirements for college teachers in teaching, scientific research, and social services. The leader of innovative education, the implementer of smart education, the cultivator of digital citizens, the creator of original knowledge, and the promoter of the transformation of knowledge achievements, these role expectations, which are not included in the traditional view of teachers, are quietly deepening, and expanding. The main content of the overall strength of colleges and universities (Shi Yucen:2018).

Knowledge management provides support for the implementation of China's "double first-class" construction policy. The "Double First-Class" construction is a major strategic decision for higher education made by the Party Central Committee and the State Council. It is of great significance for improving the development level of China's education, enhancing China's core competitiveness, and laying the foundation for long-term development (Hong Dayong:2022). In the "Double First-Class" construction, art majors in colleges and universities are also very important. In today's world, science and technology are changing with each passing day, the knowledge economy has achieved initial results, and the competition in national strength is becoming increasingly fierce. Rejuvenating the country through science and education is an important development strategy of my country's education. This development strategy has put forward higher requirements for higher education and university teachers, the source of China's innovation. Under the background of the implementation of

the "Double First-Class" construction policy, this study studies the effectiveness of art professional knowledge management in colleges and universities.

2. Research Objectives

1. To explore the components of effectiveness knowledge management in art major of universities under Liaoning Province.

2. To propose guidelines for improving the effectiveness of knowledge management in art major of universities under Liaoning Province.

3. Research Methodology

1. Research Design

The research was mixed methodology design which were comprised of quantitative and qualitative research. There were two steps of research which were research proposal preparation, research procedures, and research report.

2. Population and Sample

The researcher designed a five-point rating scale questionnaire. The scope of the questionnaire survey consists of 3,852 people, who are 2867 teacher and 985 administrators, teaching in 23 public universities with art majors in Liaoning Province. The sample total of 351 cases. Consists 256 teacher and 95 administrators. Researchers use Krejcie and Morgan table to determine the sample size, and selected by cluster random sampling technique.

3. Research Instruments

The main instruments used in this research was a 5-point scale questionnaire that the researcher created from the review of literature and the validity checked by 5 experts, included the reliability the alpha coefficient was 0.985.

4. Data Collection

Data collection is done by researcher, who make contact with key informants and identify themselves. Send the questionnaire by email or other means. The steps of data collection are as follows:

Step 1: Apply to the BTU Faculty of Education, Bangkokthonburi University for permission to collect research data.

Step 2: Apply for a letter of recommendation from a researcher at the BTU Faculty of Education, Bangkokthonburi University.

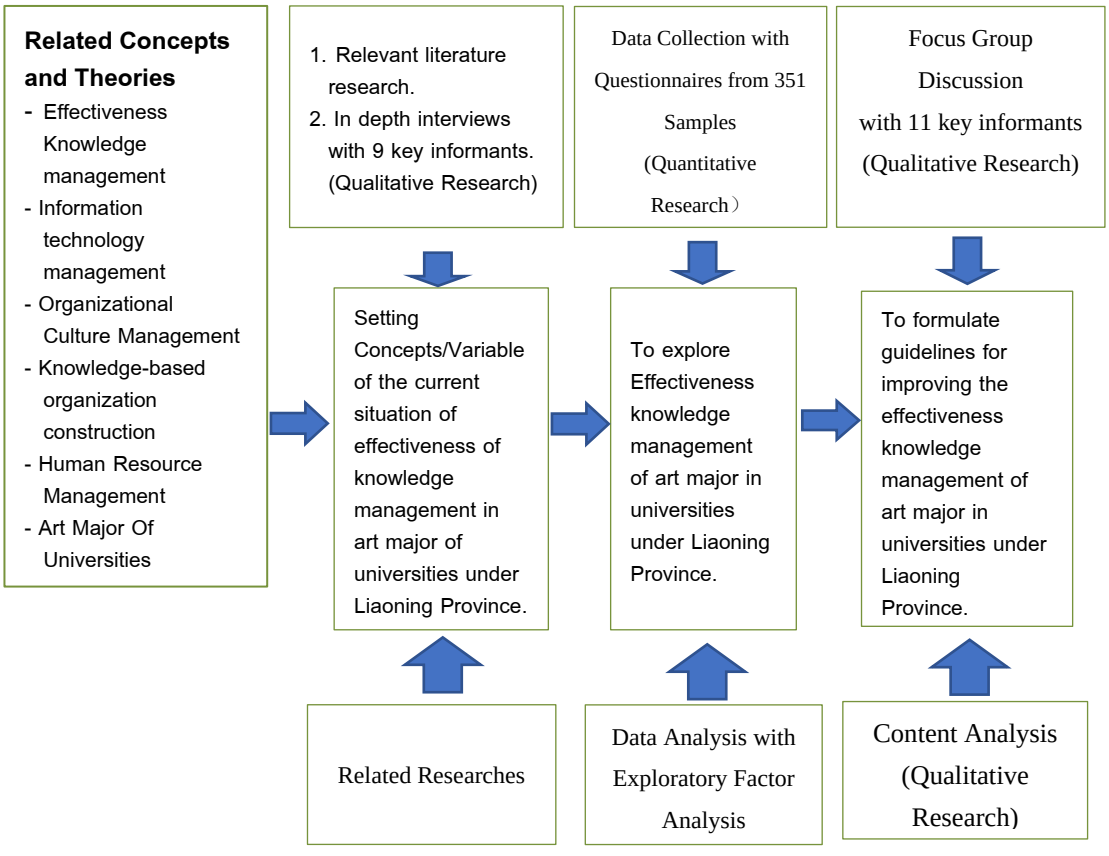
Step 3: Collect data from the samples. The questionnaires were sent online, mail, and researcher. And collect questionnaires online and by researcher.Step 4: Collect data on the selected samples by sending questionnaires to the coordinating teachers and administrators. The coordinating teachers will assist in collecting data on the selected samples of each school.

5. Data Analysis

Qualitative research analysis: For qualitative data, such as interviews and literature reviews, researchers will use content analysis methods. They will carefully read and analyze the collected data to identify important themes, viewpoints, and patterns.

Quantitative research analysis: For quantitative data, researchers will use SPSS software for data analysis. They will utilize the functions of SPSS for descriptive statistical analysis, inferential statistical analysis, and regression analysis. These analysis methods will help researchers reveal the relationships, trends, and significance levels between variables. Exploratory Factor Analysis (EFA) is used to analyze the factors that effectiveness of knowledge management in art major of universities under Liaoning Province, so as to reduce the irrelevant variables.

4. Research Conceptual Framework



5. Research Results

The researcher from the literature review and the variable outline of related studies, there were 60 items. The researcher selected ≥ 10 of the frequency items and finally obtained 53 items.

According to the information obtained from the interviews, there were a total of 90 items. As for the recognition degree of different items of key information providers, the researchers selected items with recognition degree ≥5, and finally reached 49 items.

The researchers combined 53 items derived from literature review and 49 items derived from interviews with key informants, resulting in a total of 102 items. Combining the total number of items between this two aspects, the 10 items are repeated. Therefore, 92 valid items were screened out.

In order to verify the validity of the questionnaire, the researcher sent the questionnaire to 5 research experts for verification. Targeted Item-Objective Congruence (IOC) is used to evaluate items in the questionnaire on a scale of -1, 0, +1. 17 items with scores below 0.5 were deleted. On the other hand, 75 items with scores of 0.60-1.00 were retained. So a total of 75 final items were obtained.

Result of Data Analysis for Research Objective 1

Identify and identify effective components of effectiveness of knowledge management in art major of universities under Liaoning Province. There were 351 valid questionnaires, and all of them were collected, among which 351 were selected as the final questionnaire results.

Part I: Result of Data Analysis on Questionnaire: Demographic Information shows that a total of 351 respondents participated in the survey, among them, the proportion of males and females is approximately 1:2, with more females. Among them, 46.2% were under the age of 30, and half of the respondents were between the ages of 31 and 60, reaching 49.8%. In terms of professional titles, apart from lecturers who accounted for half of the proportion, teaching assistants accounted for the most, accounting for 33.9%. Among the respondents' academic qualifications, master's and doctoral degrees accounted for the largest proportion, and the sum of the two accounted for more than 70%. Among the respondents, 2.9% had teaching experience of more than 16 years, accounting for only a small part. In terms of job types, teachers accounted for 79.5%, and administartors accounted for 20.5%.

Part II questionnaire data analysis results: The greater the standard deviation, the greater the dispersion of the data. As can be seen from the standard deviation, if the data value is not large, the degree of data dispersion is not high. The coefficient of variation

represents the ratio of the fluctuation amplitude of the data to the average value, and the larger the coefficient of variation value, the stronger the volatility. It can be seen from the calculation results that the coefficient of variation of all variables fluctuates around 0, indicating that the volatility of the data is not strong. The calculated values of standard kurtosis and skewness are also approximately near 0, because it is a large sample data of more than 30 non-samples. In summary, it can be concluded that the questionnaire data roughly follow the normal distribution, and the subsequent distribution can be modeled based on the normal distribution.

Table 1 KMO and Bartlett's Test

KMO sample appropriateness measure		0.980
Bartlett's Test of Sphericity	Approx. ChiSquare	20076.763
	df	2775
	Sig	0.000

Table 2 The component matrixa after rotation

Variable	Component				
	1	2	3	4	5
Strengthen teachers' professional autonomy and sharing concept	0.649				
Knowledge leadership influences willingness to hide knowledge	0.566				
Constructing the Knowledge Base of University Teachers' Professional Development	0.553				
Understanding organizational needs as a knowledge-correct planning strategy	0.520				
Let knowledge management set our institution as a unique body of knowledge	0.491				
Connect knowledge from different industries and develop new ideas	0.490				
Change the one-way teaching mode	0.487				

Variable	Component				
	1	2	3	4	5
Planning and organizing knowledge courses according to characteristics	0.475				
Actively guide relevant experience, skills, perception and even artistic appeal	0.452				
Participate in organizational knowledge production, knowledge integration, and problem solving	0.450				
Give full play to the knowledge in the field of art design for knowledge management	0.443				
Institutions update knowledge in a timely manner	0.425				
Improve the rights of democratic management and broaden management channels	0.423				
Encourage teachers to develop lifelong learning goals	0.402				
Enhancing the diversification of art general education and aesthetic education courses	0.364				
Build industry autonomy, walk with institutions	0.339				
Establish a characteristic curriculum system		0.646			
Highlight the openness and practicality of course content		0.592			
Proceed from reality and keep pace with the times		0.506			
Teachers experience significant differences in creativity		0.458			
Innovating talent training models from the perspective of Chinese and international development		0.456			
Actively try to take concrete measures		0.452			

Variable	Component				
	1	2	3	4	5
Build a harmonious, shared and open corporate organizational culture		0.444			
Organization and implementation of specific knowledge management strategies should adequately support intersectional thinking		0.439			
Knowledge sharing, flow and intersection can enhance creativity		0.426			
Organizational knowledge should conform to the organization's philosophy		0.424			
Interdisciplinary, interdisciplinary knowledge should be fully supported		0.419			
The maturity of the existing organizational culture lies in dealing with internal knowledge behaviors and perceptions		0.414			
Focus on broadening the scope of expertise		0.391			
Helping organizations prepare for all future changes		0.377			
Strengthen the organizational culture management system and implement effective characteristic management		0.306			
Use an excellent system to create an environment for retaining talents for the growth of knowledge			0.577		
Use different KM strategies to match established organizational structure inertia			0.552		
Improve the running of colleges and universities, promote the construction of comprehensive disciplines and knowledge innovation in colleges and universities			0.532		
Teachers have a legal right to speak			0.506		

Variable	Component				
	1	2	3	4	5
Apply innovative thinking, employing knowledge sharing and knowledge flow			0.497		
Goal-oriented, innovative individual knowledge management strategies			0.496		
Focus on resource dependencies and cultural dimensions			0.495		
Establish a reward mechanism			0.468		
Strengthen the study of organizational structure to participate in more lectures and cultural exchanges			0.462		
Ensure the innovation of the teaching system and realize the reasonable connection of professional courses			0.428		
Improve the software and hardware facilities for knowledge management, and cultivate a soft culture suitable for knowledge management			0.427		
The combination of theory and practice meets the needs of teaching			0.404		
Improve and optimize the organizational structure on the basis of the original model			0.387		
Smooth information channels			0.352		
Manage a large number of online teaching resources				0.594	
Create a more cohesive strategy				0.536	
It is necessary to mobilize the enthusiasm of talent education to establish incentive mechanism				0.526	
Pay attention to situation creation and subject integration				0.513	

Variable	Component				
	1	2	3	4	5
Gather knowledge using online platforms and create an organizational knowledge base				0.503	
Let people break through time and geographical constraints to acquire knowledge				0.490	
To equip teachers with advanced educational concepts and master advanced teaching methods				0.488	
Teachers are always using arts and technology innovations, technology platforms				0.479	
Transform knowledge learning into exchange discussion and joint research				0.478	
Assess relevant knowledge management View knowledge management as an asset				0.475	
Transform knowledge management from an external requirement to an internal requirement				0.451	
Knowledge management should be organically combined with the core business of the organization				0.450	
Analyze customer needs, use information technology				0.425	
Discover and integrate new perspectives across knowledge systems				0.407	
Absorb knowledge and teach students in accordance with their aptitude				0.389	
Provides broader knowledge, easy to find				0.387	
Talent introduction, talent incentive, talent evaluation, talent training, talent exit					0.663

Variable	Component				
	1	2	3	4	5
Arrange the work that everyone should undertake and realize the diversification of personnel composition					0.524
University organization should be decentralized					0.521
Establish a complete, flexible and flexible "full life cycle" talent management mechanism					0.516
Allow teachers and students to participate in management and give them sufficient decision-making power					0.510
Multi-dimensional knowledge, compound talents					0.503
Ensuring support and problem-solving mechanisms for teachers' creative vitality					0.501
Institutions of knowledge management research should be equal and mutually beneficial					0.475
Collaborative development across fields to make up for shortcomings in professional development					0.465
Organize professional teachers to communicate and improve relevant systems					0.451
Improve the organization's knowledge management level and establish an evaluation system					0.450
Provide more industry exchange and promotion opportunities					0.443
Combined with teacher specializations to personalize expertise					0.438

Variable	Component				
	1	2	3	4	5
Create opportunities and provide necessary support for their research projects					0.422

The data in this study were rotated using the maximum variance rotation method (varimax) in order to find out the corresponding relationship between factors and study items. The above table shows the information extraction of research items by factors and the corresponding relationship between factors and research items. It can be seen from the above table that the common degree value of all research items is higher than 0.6, which means that there is a strong correlation between research items and factors, and factors can effectively extract information. After ensuring that the factor can extract most of the information of the research item, the corresponding relationship between the factor and the research item is analysed (when the absolute value of the factor loading coefficient is greater than 0.4, it indicates that the item has a corresponding relationship with the factor).

It can be seen from the Table 4-14, that "strengthening teachers' professional autonomy and shared concepts" has a higher loading of 0.649 on the first factor; "establishing a characteristic curriculum system" has a higher loading of 0.646 on the second factor; "using "Excellent system, creating an environment for retaining talents for the growth of knowledge" has a higher loading of 0.577 on the third factor; "Managing a large number of online teaching resources" has the highest loading of 0.594 on the fourth factor; "Talent introduction, talent motivation, talent evaluation, talent training, talent exit" has a high loading of 0.663 on the fifth factor; with the support of the literature in the previous chapter, the first factor is summarized as "effective management" , the second factor is summarized as "organizational culture management", the third factor is summarized as "knowledge-based organization", the fourth factor is summarized as "information technology management", the fifth factor is summarized as "human resources management".

Table 3 Table of components of effectiveness of knowledge management in are major of universities under Liaoning Province

No	Assembly	Number of variable	Factor loading
1	Effectiveness Management	4	0.520-0.649
2	Organizational Culture Management	3	0.506-0.646

No	Assembly	Number of variable	Factor loading
3	Knowledge-Based Organization Construction	4	0.506-0.577
4	Information Technology Management	5	0.503-0.594
5	Human Resource Management	7	0.501-0.663
	All	23	

According to Table 3, there are 5 qualified parts as follows: Component 1 “Effectiveness Management” contains 4 variables that describe this component, coefficient load is between 0.520-0.649. Component 2 “Organizational Culture Management” contains 3 variables, and the load coefficient of the component is between 0.506-0.646. Component 3 “Knowledge-Based Organization Construction” contains 4 variables describing components with factor loads ranging from 0.506-0.577. Component 4 “Information Technology Management” contains 5 variables, describing the load between components and the factors range from 0.503-0.594; Component 5 “Human Resource Management” contains 7 variables, describing the load between components and the factors range is 0.501-0.663.

Figure 1 The 5 components of effectiveness of knowledge management in art major of universities under Liaoning Province

Result of Data Analysis for Research Objective 2

The guideline to enhance effectiveness of knowledge management in art major of universities under Liaoning Province. Through qualitative research, quantitative research and factor analysis, the researchers obtained the guideline to enhance effectiveness of knowledge management in art major of universities under Liaoning Province. A total of 11 experts participated in the panel's five sections. Finally, the relevant content is summarized, and There are 23 guiding principles for the to enhance effectiveness of knowledge manangement in art major of universities under Liaoning Province, including 4 guiding principles for Effectiveness Management component, 3 guiding principles for the Organizational Culture Management component, 4 guiding principles for the Knowledge-Based Organization Construction component, 5 guiding principles for the Information Technology Management component and 7 guiding principles for the Human Resource Management component.

6. Conclusion

The study procedure included two steps:(1) result of key effectiveness of knowledge management in art major of universities under Liaoning Province. The researcher reviews literature found 92 Sub Variables and there were 45 variables from the interview of key informants. The researcher was to combined the content analysis of the literature review and the analysis of semi-structured interviews with experts, a total of 92 variables are obtained and screened A total of 10 Main Variables with a frequency greater than 50% were identified. After the expert IOC certification, variables with a score of less than 0.6 were removed, Finally, with 5 dimensions and 75 variables, and 75 variables will be used for questionnaire distribution. And prepared a research instrument as a five-point evaluation subscale questionnaire.

On the basis of exploratory factor analysis (EFA), the variables were extracted and the key component variables were analysed seems to get five effectiveness of knowledge management in art major of universities under Liaoning Province. which consisted of Effectiveness Management, Organizational Culture Management, Knowledge-Based Organization Construction, Information Technology Management and Human Resource Management.

Component 1: There were 4 managerial guidelines which were (1) Strengthen teachers' professional autonomy and sharing concept. (2) Knowledge leadership influences willingness to hide knowledge. (3) Constructing the Knowledge Base of University Teachers' Professional

Development. (4) Understanding organizational needs as a knowledge-correct planning strategy.

Component 2: There were 3 managerial guidelines which were (1) Establish a characteristic curriculum system. (2) Highlight the openness and practicality of course content. (3) Proceed from reality and keep pace with the times.

Component 3: There were 6 managerial guidelines which were (1) Use an excellent system to create an environment for retaining talents for the growth of knowledge. (2) Use different KM strategies to match established organizational structure inertia. (3) Improve the running of colleges and universities, promote the construction of comprehensive disciplines and knowledge innovation in colleges and universities. (4) Teachers have a legal right to speak.

Component 4: There were 7 managerial guidelines which were (1) Manage a large number of online teaching resources. (2) Create a more cohesive strategy. (3) It is necessary to mobilize the enthusiasm of talent education to establish incentive mechanism. (4) Pay attention to situation creation and subject integration. (5) Gather knowledge using online platforms and create an organizational knowledge base.

Component 5: There were 3 managerial guidelines which were (1) Talent introduction, talent incentive, talent evaluation, talent training, talent exit. (2) Arrange the work that everyone should undertake and realize the diversification of personnel composition. (3) University organization should be decentralized. (4) Establish a complete, flexible and flexible "full life cycle" talent management mechanism. (5) Allow teachers and students to participate in management and give them sufficient decision-making power. (6) Multi-dimensional knowledge, compound talents. (7) Ensuring support and problem-solving mechanisms for teachers' creative vitality.

7. Discussion

Effectiveness of knowledge management in art major of universities under Liaoning Province pursues innovation and change, requiring colleges and universities to use efficiency management, organizational culture management, knowledge-based organization construction, information technology management, human resources management and closely integrated with college education business.

The major findings were Effective management builds a culture and processes that encourage employees to share their knowledge and experience to promote teamwork and innovation. Art major is influenced by art professional techniques in different colleges and

universities, and the specific knowledge construction has a lot to do with teachers' teaching efficiency and students' acceptance. This study is consistent with the research direction of researcher Wang Zhen(2010).Wang Zhen said that knowledge management is one of the important management contents of university management, involves all aspects of university management, and is of great significance to the growth of teachers and students and the development of the universities. But at the same time, this study proposes some new concepts.

The results of this study are consistent with the theoretical or research results of Zhang Chunlai (2009). Zhang Chunlai believes Encouraging sharing and collaboration is key to knowledge management, and organizational culture can play a key role in this. A culture that encourages open communication and sharing of knowledge will help teachers be more willing to share their expertise and experience. Jia Shengguo (2007) believes that innovation is usually based on knowledge, and a culture that encourages innovation helps stuffs to come up with new ideas and solve problems more easily. Organizational culture management can promote creative thinking and knowledge sharing, thereby driving innovation.

Increase stuffs satisfaction and loyalty, as stuffs feel that their knowledge and experience are valued and that they have the opportunity to grow and contribute. The results of this study are based on the theory or research of Wei Lei (2011). Knowledge-based organization building encourages open and transparent knowledge sharing. It creates an environment where stuffs can safely share their experiences and insights, thereby promoting the dissemination and sharing of knowledge. Zhao Juan(2013) views on the construction of knowledge-based organizations are consistent with the purpose of this article. Building a knowledge-based organization typically involves establishing an infrastructure of technologies and tools to support knowledge management. This can include knowledge bases, collaboration platforms, search engines, etc., helping to efficiently capture, store and retrieve knowledge. It recognizes that innovation is often based on knowledge and therefore provides an environment conducive to the emergence of new ideas and approaches.

The results of this study are consistent with the theory or research results of Shao Jia (2006). Information technology management provides various knowledge storage and retrieval tools such as knowledge bases, document management systems and search engines. These tools enable organizations to efficiently store large amounts of knowledge and retrieve needed information quickly and accurately. Collaboration tools and social platforms enable stuffs to easily share knowledge and experience. The results of this study are consistent with Jin Dongmei (2015) theory or research that information technology management can support

the distribution of knowledge and ensure that relevant personnel can access the required information at any time. Email, internal portals and mobile apps are effective tools for distributing knowledge. Information technology management can help organizations analyze and mine large volumes of data for valuable insights.

HRM can ensure that performance evaluations take into account knowledge sharing and knowledge management success. The results of this study are based on the theory or research of Chen Shumin (2007). Human resource management (HRM) plays an important role in effectiveness of knowledge management because it directly involves the recruitment, training, motivation and turnover of stuffs within the organization. These activities have an important impact on the flow, sharing and retention of knowledge. The results of this study are consistent with the theory or research of Appropriate incentive and recognition mechanisms can encourage stuffs to actively participate in knowledge sharing and collaboration Zheng Wei (2010). HRM can design reward programs to encourage knowledge sharing and innovation. Chen Xiaobei (2014:110-130) believes that when organizations undergo changes, HRM can assist stuffs in adapting to new knowledge management processes and tools. They can provide training and support to ensure a smooth transition for stuffs to new ways of managing knowledge.

Effectiveness of knowledge management level of most art major of universities under Liaoning Province is relatively low and lagging behind. It is necessary to continue to deepen the knowledge management awareness of faculty and staff. Teaching, scientific research and social services are the basic functions of university teachers, and are also the main duties performance activities of university teachers. However, the realization of teaching, scientific research and social service functions is undoubtedly inseparable from the important role played by knowledge, that is, it cannot be separated from the supply and accumulation of knowledge through learning. Therefore, this study will incorporate learning into the scope of duty performance activities of college teachers, and use knowledge management theory as a perspective to conduct in-depth analysis and research on the learning, teaching, scientific research and social services of college teachers.

Whether the research question originates from the interaction between teachers' personal experiences realized in practice and existing personality experiences, or from the interaction between other people's mental models and one's own mental models constructed through imitation during learning, the process of generating new knowledge growth points is Implicit in the knowledge management process.

8. Recommendations

In order to better realize the effectiveness of knowledge management in art majors of universities under Liaoning Province, a range of specific policies and measures are required to ensure the effective organization, transfer and retention of knowledge. it is recommended to follow the following principles when formulating policies:

1. Recommendation for Policies Formulation

(1) Establish a knowledge management team: Establish a dedicated knowledge management team responsible for coordinating, promoting and supervising knowledge management activities. This team should be made up of professionals who understand the special needs of the arts field.

(2) Digitized data: Digitally archive all art-related documents, materials and works for easier access and sharing. Ensure archive security and backup to prevent data loss.

(3) Build a Knowledge Base: Create an online knowledge base that aggregates key news, research, cases, and technical documentation in the art major.

(4) Knowledge Sharing Platform: Set up a dedicated online platform to encourage students, teachers and researchers to share their artwork, projects and research results.

(5) Training and awareness-raising: Provide knowledge management training to school staff to educate them on how to organize and share knowledge more effectively. At the same time, increase their awareness of the importance of knowledge management.

(6) Knowledge Protection and Intellectual Property Policy: Develop a clear knowledge protection policy to ensure that intellectual property rights for artistic works and research results are fully protected. At the same time, establish reasonable knowledge sharing policies to encourage cooperation and innovation.

(7) Interdisciplinary Collaboration: Facilitate collaboration between different disciplines to encourage knowledge exchange and innovation. Create interdisciplinary programs and research centers to help students and faculty straddle different fields.

(8) Monitoring and evaluation: Regularly monitor and evaluate the effectiveness of knowledge management activities. Continuously improve policies and measures based on feedback and data to ensure successful implementation of knowledge management. Establish indicators and key performance indicators for evaluating the effectiveness of knowledge management activities. Regularly conduct user satisfaction surveys to collect feedback and improve services based on feedback.

(9) Rewards and Encouragement: Establish a reward mechanism to recognize students, teachers and administrators who have achieved outstanding achievements in knowledge management.

(10) International Cooperation: Establish partnerships with the international art major of universities to promote international knowledge exchange and cooperation.

Through the implementation of the above policies and measures, universities can better manage art professional knowledge, promote innovation, cooperation and knowledge transfer, and improve the quality and influence of art major and research. Art colleges and universities can manage expertise more effectively, thereby improving the quality of education and research and promoting innovation and development in the art majors. These policies and measures need to be customized and implemented based on the specific needs and resources of the colleges and universities.

2. Recommendation for Practical Application

This study identifies the current situation of the effectiveness of knowledge management in art major of universities under Liaoning Province, the scope of effectiveness of knowledge management in art major of universities, the factors influencing it, and how to promote the innovative development and effectiveness of knowledge management in art major of universities under Liaoning Province. Based on these findings, the researchers put forward some ideas for the effectiveness of knowledge management practice in art major of universities under Liaoning Province:

Establish a clear knowledge management strategy: First, develop a clear effectiveness of knowledge management strategy with clear goals, methods and key performance indicators. Identify the core objectives of knowledge management, such as improving the quality of education, promoting research innovation, or supporting academic collaboration. Develop a clear strategic plan that includes specific policies, procedures and timelines. Set key performance indicators to monitor and evaluate during implementation.

Knowledge Sharing Platform: Establish an online platform that encourages students and faculty to share their artwork, research, and creative projects. Provide technical support to ensure the stability and security of the platform.

Develop an intellectual property policy that sets out guidelines for knowledge sharing and knowledge protection. Provide legal advice to help staff and students understand intellectual property laws and regulations. Establish a complaint handling mechanism to resolve intellectual property disputes.

Knowledge management team: A dedicated effectiveness of knowledge management team is established to coordinate and supervise knowledge management activities to ensure the implementation of policies and measures.

Monitoring and evaluation: Establish a monitoring and evaluation mechanism to regularly review the implementation of the effectiveness of knowledge management policy and make improvements based on feedback and data.

These suggestions can be customized and adjusted according to the needs of various art majors of universities under Liaoning Province. The implementation of art professional knowledge management requires integrated strategies and cross-departmental cooperation to ensure that knowledge can be better organized, transferred and retained, thereby promoting the development of art major and research in universities under Liaoning Province. Universities can better manage arts expertise, improve the quality of education and research, and foster innovation and growth in the art major.

3. Recommendation for further research

Although this study provides some exploration of the effectiveness of knowledge management in art major of universities, it is only a beginning and inevitably has some limitations:

This study on knowledge management effectiveness in Liaoning Province's art universities identifies key areas for improvement:

*Define clear educational and research goals with performance indicators.

*Develop a strategic plan involving various stakeholders.

*Regularly conduct SWOT analysis for improvement.

*Articulate core values and vision, communicate them widely.

*Foster a culture of sharing through online platforms and events.

*Promote social responsibility and public engagement.

*Clarify organizational goals and vision with member engagement.

*Encourage knowledge sharing through online platforms.

*Establish a dedicated knowledge management team.

*Develop an aligned IT strategy based on SWOT analysis.

*Identify IT leadership, recruit, and provide training.

*Support educational technology and establish a help desk.

*Develop a clear recruitment plan and inclusive hiring processes.

*Gather staff feedback and host engagement events.

*Offer career development and internal promotions.

This research aims to enhance knowledge management effectiveness in Liaoning's art universities, strengthening their core competencies and contributing to the cultural industry's growth and economic prosperity in the region.

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