Exploration of E-Portfolio IC² Innovative Management Model To Promote the Professional Development of University Teachers

By Chen Qin , Feng Mei & Zeng Fancai

Luzhou Medical College, China

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GJHSS-E Classification : FOR Code: 160506, 160505, 160509

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Strictly as per the compliance and regulations of:

Exploration of E-Portfolio IC^2 Innovative Management Model To Promote the Professional Development of University Teachers

Chen Qin [α], Feng Mei [σ] & Zeng Fancai [ρ]

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I. Introduction

E-portfolio, which is now widely used in Europe and America, refers to the aggregation related to learning. At the atmosphere of information technology, learners take advantage of information to display and show their purposes of learning, learning activities, achievements, results, exertion, progress and reflection over the learning courses and results. However, it has not been long since E-portfolio was introduced to the education field in China. The research by university teachers over E-portfolio and its application is still in the initial stage. Many functions of E-portfolio have failed to be displayed due to the unawareness and ignorance of personnel at all levels. One of the important factors is that the management and service capacity of the teaching managers is to be enhanced, for the management and service capacity comes from the capacity of managers themselves. Only if they are armed with the capacity, can they facilitate the healthy development of E-portfolio. In this context, on the basis of the delicate management theory and the innovative service model of IC² in university library, how to establish the innovative management model of E-portfolio IC² on teaching management level is of great theoretical significance and practical value. Through the establishment of innovative management model, we can make the maximal use of E-portfolio platform to serve for learners' life-long learning and development and promote the professional development of university teachers by knowledge-sharing and innovation.

II. Connotation of Ic² Innovative Management Model

IC² is a service model initiated by the library of Shanghai Jiaotong University. This article applies its innovation to the establishment of innovative management model of E-portfolio on teaching management level which is rooted in "Information Commons" and takes "Innovation Community" as its distinguishing feature. Therefore, we need to make out the basic connotation of IC² Innovative Management Model based on our understanding of the two models.

a) Information Commons

Information Commons (IC1) is used in response to the demand of the learners who have access to the management and service of E-portfolio and the open learning environment. It integrates the convenient Internet, the soft and hardware facilities of the computer with overall functions with rich resources of knowledge corpus (including various forms such as printing type, digitalization and multi-media). Based on the original E-portfolio, virtual and entities knowledge community is established for open learning and communication to nurture the information literacy of the learners, promote their learning, exchange, cooperation and study and increase the usage of E-portfolio with the mutual support of the skilled educational administration department, computer experts, multimedia workers and supervisors. [1]

b) Innovation Community

Based on the support of IC1, Innovation Community (IC2), composed of academic experts, educational technical specialists, learners and teaching administrators, is established for the management and service of E-portfolio through the classification of

Author α σ : Department of Teaching Affairs; Department of English Luzhou Medical College , Luzhou, 646000, China. E- mail : cq6606@163.com
Author ρ : Department of Biochemistry, Luzhou Medical College, Luzhou, 646000, China . E-mail : Zfcai@sina.com

subjects. IC2 takes learners as its center, innovation its mainline and community-based management and service its carriers and forms. Thus was created the E-portfolio community, bringing together the relevant resources according to the needs of learners and giving more new meaning to Information Commons by mining and extracting their supportive environment and information. IC2 provides effective professional guidance for E-portfolio application and maximizes and optimizes the function of E-portfolio Information Commons and thus promotes the professional development of university teachers.

c) *Basic connotation of IC² innovative management model*

From the perspective of teaching management, the IC² innovative management model can be interpreted as follows: the functions of the two above-mentioned IC models complement each other and optimize as one, resulting in the effect of multiplication and even index which cannot be achieved by either of the two service models. The formula can be described as: IC^2 = Information Commons (IC1) $\times$ Innovation Community (IC2). IC² innovative management model aims to achieve the enhancing effect of square-class management and service performance through the integration of IC1 and IC2 and the maximization of each of their advantages. [2]

III. Problems of Teachers' E-Portfolio in Universities and Significance of Ic² Innovative Management Model

a) *Problems of teachers' E-portfolio in universities*

Teachers' E-portfolio, as a life-long learning and developmental evaluation tool, has a tremendous impact on education and teaching in the information age. However, as the domestic and foreign study on E-portfolio is still being explored, the elaboration of its definition, content and role differs from researcher to researcher. Besides, E-portfolio has still not been well applied to the learning field, as the concept that E-portfolio is the learning environment of all learners has not been established. Thus, if we conduct a further study over the E-portfolio status of teachers at home and abroad, we can easily find that E-portfolio still lacks some basic elements, which leads to the failure of displaying its proper function, as is illustrated in the following six aspects: (1) The teaching administrative department hasn't set clear objectives over the establishment of E-portfolio, which is not good for promoting the professional development of university teachers. (2) The structure of E-portfolio is imperfect, so it cannot fully reflect its functional properties. (3) The constitute content of E-portfolio lacks depth and width. For example, the pedagogical reflective thinking is not comprehensive, which only centers on the list of

teaching facts instead of making analysis and summarization of these facts on the theoretical level. So the teachers cannot gain experience from these sporadic facts without the formation of regularity. In addition, if the teachers have selected the teaching cases that are not representative, it is difficult to build up dynamic educational resources. (4) Due to the inadequate understanding and exploring of the function of E-portfolio, its nature has not been reflected. (5) E-portfolio between teachers and its relationship with curriculum need to be further integrated. (6) The collaborative learning and assessment with the help of E-portfolio has not been sufficiently carried out. The reason why we have the above-mentioned problems mainly lies in our insufficient knowledge of E-portfolio and poor understanding of its nature. In addition, the resources of E-portfolio are neither open and portable nor learner-centered, it is difficult to stimulate learners' interest. Therefore, how to establish E-portfolio IC² innovative management model from the perspective of teaching administration to get the most function out of E-portfolio has important theoretical significance as well as practical value. [3].

b) *Significance of IC² innovative management model*

IC² innovative management model is an important way to promote the professional development of university teachers.

E-portfolio IC² innovative management model in university teachers, as a theoretical point of the current research in the educational technology field, is different from the traditional library IC² innovative services. E-portfolio, established according to IC² innovative management theory, can not only be a cognitive tool in teaching and a tool for evaluation of the learning environment, but can also build up learning community in teaching activities to promote reflection and improve the learners' self-diagnosis and continuous self-improvement ability. E-portfolio IC² can foster the learning of ill-structured knowledge and promote the formation of E-portfolio team by acting as the exchange and innovative platform for teachers-and-students' study and research. What's more important, E-portfolio IC² can achieve the function of E-portfolio effectively and promote knowledge sharing and innovation, which makes its users willing to use E-portfolio as their learning environment or cognitive tools to facilitate the professional development of university teachers.

IC² innovative management model has reinforced the theoretical basis of E-portfolio.

From the current situation of E-portfolio in university teachers, due to the lack of management theory, the contents of E-portfolio are merely the personal knowledge and experience without building an E-portfolio system based on new systematic study and evaluation. The current E-portfolio is not well guided by system theory and is poor in the organization of its

contents, file classification and exchange, thus impeding the further development of E-portfolio. The core of IC² innovative management is sharing and innovation. We apply the concept of IC² innovative management to the design and application of E-portfolio. We can carry out effective systemic development, storage, transmission, exchange and sharing over the E-portfolio resources by using the information technology medium of E-portfolio to make E-portfolio truly serve the university teachers, increase teachers' innovative ability and, finally, promote the professional development of teachers. In this way, we find a systematic theory as the guiding ideology for E-portfolio development.

IC² innovative management model has effectively promoted the comprehensive development of E-portfolio.

We use the new theory to explore the nature of E-portfolio in university teachers to effectively promote their professional learning, research and teaching capabilities through knowledge sharing and innovation of E-portfolio. IC² innovative management model has reinforced the theoretical basis of E-portfolio. Combined with IC² innovative management model, E-portfolio can achieve its functional properties one by one. This combination can not only help expand its applications but also dig out its functional value effectively. It is a useful attempt for E-portfolio research and application in universities..

IV. Establishing E-Portfolio Ic² Innovative Management Model to Promote the Professional Development of University Teachers

a) Basic principles of establishing E-portfolio IC² innovative management model

First of all, the management thinking of "information sharing and innovation community" should be reflected in the establishment of E-portfolio IC² innovative management model. Besides, we should abide by the following principles:

Learner-centered. The establishment of E-portfolio IC² innovative management model should be learner-centered. We should know about the current and future needs of learners and provide services and be responsible for them. In other words, we should put the learners in the most important position in the whole management system.

Continuous improvement. Continuous improvement is a new requirement put forward by teaching managers in accordance with learners and the law of teaching. We should adhere to the continuous improvement of E-portfolio quality, which is the goal and soul and affects all aspects of E-portfolio quality in the whole management process.

People-oriented. Teaching administrative departments should attach great importance to the development, utilization and management of human resources and emphasize full participation, teamwork and coordination with full respect of human values.

Systemic planning. We should take E-portfolio as an organic system, follow the overall optimization principles and establish a scientific mechanism through comprehensive planning and systemic designing of E-portfolio in university teachers.

b) Basic steps of establishing E-portfolio IC² innovative management model

i. Formation of Information Commons

We can draw a schematic diagram as follows: support and understanding of senior managers → establishment of the entities and network platform of E-portfolio → knowledge reserve of E-portfolio → education and training → the establishment of interdisciplinary knowledge base in teachers (learners) → the formation of collaborative platform based on the integration of E-portfolio and subject knowledge → the formation of Information Commons.

Firstly, the implementation of E-portfolio IC² innovative management cannot be realized without the full understanding and support of senior managers. Only with senior leaders' deep understanding of E-portfolio IC² innovative management can it direct the systemic work of E-portfolio properly.

Secondly, we should put up the entities and network platform of E-portfolio. Managers must make clear the implementation scope of E-portfolio. When formulating plans for the professional development of university teachers, managers should systematically arrange the establishment of entities and network platform based on the analysis of the needs of different learning groups, set the objectives of E-portfolio promoting teachers' professional development, establish a planning team of E-portfolio promoting the professional development of university teachers, and put up the entities and network platform of E-portfolio to meet the needs of learners and the professional development of university teachers.

The third step involves the knowledge reserves of E-portfolio. Teaching managers need to establish a comprehensive and systemic E-portfolio knowledge base by means of search engines, knowledge portals, knowledge maps and other channels.

The fourth step is education and training. Learners can better understand E-portfolio and develop its various functions only if they receive adequate education and training which can facilitate exchange and communication within the community.

The fifth step, as well as a crucial step, involves the establishment of interdisciplinary knowledge base in university teachers. We transfer staff from different

departments to form disciplinary knowledge base team responsible for the establishment and continuous improvement of the disciplinary knowledge base. In this process, the team members modify and improve the previously established disciplinary knowledge base through exchange of information and feedback of learners.

The sixth step is to form a collaborative platform based on the integration of E-portfolio with academic knowledge. Based on the above steps, we develop and use E-portfolio and academic knowledge base and build a collaborative platform relying on E-portfolio entities and network platform. On the platform was formed the Information Commons that promotes knowledge innovation and sharing as well as the professional development of university teachers.

ii. *Formation of Innovation Commons*

The schematic diagram of Innovation Community can be illustrated as follows: The Information Commons → E-portfolio Community (including education subject specialists, education technology experts, learners and teaching managers) → processing and refining of the Information Commons → innovation → continuous quality improvement of E portfolio.

On the basis of Information Commons, the E portfolio community composed of subject experts, educational technology specialists, learners and teaching administrative staff come into being. The community share common knowledge, organize seminars and foster the mutual communication between disciplines, between teaching administrative staff and teachers, between teachers and educational technology experts. In addition, the E-portfolio community achieves its knowledge innovation and continuous improvement through reflection on teaching, learning diaries and other summaries over collaboration and the processing and refining of information space.

V. Conclusion

The establishing and running of Information Commons and Innovation Community is a systemic and long-lasting process, involving not only the entity space, the software resource development, device configuration, personnel structure, organization and management, the change of learning concept, the change of service capacity and quality assessment and improvements, but also the contact and cooperation with other departments on campus. Therefore, E-portfolio IC² innovative management is still faced with many challenges. In the context of changes in the access to information and changes in learning and teaching methods, this article puts forward a concept and thinking mode beyond the traditional framework in order to attract more follow-up studies to maximize the function of E-portfolio and promote the professional development of university teachers.

VI. Acknowledgment

References Références Referencias

1. http://transition.alaska.edu/www/portfolios/，2001/11/17
2. F.Todd Goodson.The electroic portfolio:Shaping an emerging genre.Journal of Adolescent &Adult Literacy.Vol50,No6:March,2007.
3. Carney,J.Setting an agenda for electronic Portfolio research:A framework for evaluating portfolio literature.American Educational Reasearch Association annual conference.:March,2004.
4. Andreas Luescher, John W.Sinn. Portfolios: Conceptual Foundations and Functional Implications. The Journal of Technology Studies.Vol62, No5:68-75