



การประชุมวิชาการนำเสนอผลงานวิจัยระดับชาติและนานาชาติ ครั้งที่ 16
“Global Goals, Local Actions: Looking Back and Moving Forward 2024”
วันที่ 20 มีนาคม พ.ศ. 2567

The Current Situation and Countermeasures of Knowledge Management for Public Primary School Teachers

Rongnan Zhang

Department of Educational Administration, Graduate School,
Suan Sunandha Rajabhat University, Thailand

Email: 920728020@qq.com

Thada Sithhada

Department of Educational Administration, Graduate School,
Suan Sunandha Rajabhat University, Thailand

Email: thada.si@ssru.ac.th

Abstract

With the rapid development of information technology and the deepening of educational reform, teacher knowledge management has gradually become a hot topic in the field of education. Teacher knowledge management aims to improve teacher work efficiency and educational quality, promote teacher professional development and innovation. In today's educational environment, teacher knowledge management is of great significance in addressing complex educational challenges and promoting educational innovation. The development of teacher knowledge management can be traced back to the 1990s, when information technology began to be applied in the field of education. At this stage, teacher knowledge management mainly focuses on establishing educational resource and knowledge bases, as well as developing educational software and platforms. With the advancement of technology and the continuous upgrading of educational needs, teacher knowledge management is gradually shifting from resource library construction to teacher professional development and innovation, focusing on teacher knowledge acquisition, sharing, application, and innovation. This article takes Tieling Primary School in Harbin as an example to conduct a questionnaire survey. Through data comparison and analysis, it is found that primary school teachers are still in a state of ignorance about personal knowledge management and have not formed a good system. Intended to provide solutions to the problems that arise and



การประชุมวิชาการนำเสนอผลงานวิจัยระดับชาติและนานาชาติ ครั้งที่ 16
“Global Goals, Local Actions: Looking Back and Moving Forward 2024”
วันที่ 20 มีนาคม พ.ศ. 2567

ultimately achieve the goal of improving the knowledge management of primary school teachers. Harbin Tieling Primary School is located in Harbin City and is a well-known primary school. Here, we adopted a questionnaire survey to investigate the knowledge management of primary school teachers, in order to better understand the current situation of teacher knowledge management.

Keywords: Primary school teachers, knowledge management, curriculum reform requirements

Introduction

With the rapid development of the knowledge economy society, the speed of knowledge updating and iteration is also accelerating. In this era, teachers, as important carriers of knowledge dissemination, face new challenges. Relying solely on existing knowledge and experience is no longer sufficient to adapt to the pace of the knowledge economy society. The development of the times requires teachers to develop towards lifelong learning. In the process of continuous learning and self-renewal, teachers need to constantly improve their knowledge structure and enhance their professional level. Primary school teachers, as a special part of the teacher community, have their uniqueness mainly reflected in the fact that they face primary school students who are in the initial stage of physical and mental development. This requires that the professional development of primary school teachers must be linked to the physical and mental development characteristics of children. At the same time, the professional knowledge required by primary school teachers is not limited to subject specific knowledge, but more closely related to children's lives. In real education and teaching, many teachers are not clear about what valuable professional knowledge they have, what necessary professional knowledge they lack, in which areas they should innovate knowledge, and how to innovate knowledge. These issues lead to significant differences in the teacher population. Therefore, how to effectively manage one's own knowledge and achieve further professional development has become an important issue for the professional development of teachers. Teachers need to clarify their knowledge structure, understand their knowledge gaps, and develop professional development plans through reflection,



การประชุมวิชาการนำเสนอผลงานวิจัยระดับชาติและนานาชาติ ครั้งที่ 16
“Global Goals, Local Actions: Looking Back and Moving Forward 2024”
วันที่ 20 มีนาคม พ.ศ. 2567

summarization, and learning, in order to continuously improve their professional level and better serve students and make greater contributions to the development of education.

Research Background

After the mid-1990s, knowledge management was first introduced in the United States and later promoted in enterprises in other Western countries. There are four reasons for the rise of knowledge management. Firstly, since the 1990s, information technology has developed rapidly in industrialized countries such as the United States, Japan, and Europe, providing a faster and more convenient means for people to transfer and exchange knowledge. Secondly, in the late 1980s and early 1990s, the US economy experienced a downturn. For this reason, American companies have adopted methods such as business process reengineering and structural restructuring, and carried out large-scale personnel layoffs, including intermediate management. The massive layoffs of intermediate management have caused serious knowledge outflow and had a negative impact on internal communication within the company. In addition, the increasing frequency of job hopping among professional talents has also exacerbated the losses of knowledge outflow. In this situation, American companies have become generally aware of the necessity and importance of protecting knowledge and curbing knowledge loss, and their emphasis on knowledge assets has greatly increased. Thirdly, after the 1990s, investment in information technology began to show significant effects. Information technology has begun to play an important role not only as a means of reducing costs and improving efficiency, but also as a means of creating value. Fourthly, the development of information technology has provided people with new means of communication, and has also brought about the problem of information proliferation. Many companies have established knowledge sharing platforms, but too much knowledge leaves people unaware of where valuable knowledge is, how to find it, and of course, how to apply it to their work. This makes it necessary to classify, organize, and update knowledge. That is to say, it is necessary to manage knowledge. (Zhou Jing, 2020)



การประชุมวิชาการนำเสนอผลงานวิจัยระดับชาติและนานาชาติ ครั้งที่ 16
“Global Goals, Local Actions: Looking Back and Moving Forward 2024”
วันที่ 20 มีนาคม พ.ศ. 2567

The research significance and purpose of knowledge management for primary school teachers

As an elementary school teacher, research on knowledge management is of great significance for our daily work. It can not only help us improve work efficiency, but also promote our professional development, thereby further improving the academic level of students and even enhancing the competitiveness of the school. Firstly, through effective knowledge management, we can better acquire, store, utilize, and share knowledge, thereby improving work efficiency. In modern society, with a huge amount of information, how to quickly obtain the necessary information and apply it to practical work is the key to improving work efficiency. And knowledge management is precisely such a tool that can help us better organize, summarize, and apply knowledge, making our work more efficient and orderly. Secondly, teacher knowledge management helps to accumulate and enhance individual knowledge of teachers, thereby improving their professional competence and teaching level. As a teacher, it is necessary to constantly learn and accumulate knowledge in order to better impart it to students. And knowledge management can help us accumulate knowledge better, thereby improving our professional competence and teaching level. In addition, teacher knowledge management can also help students better understand and master teaching content, thereby improving their academic level. The quality of teachers often directly affects the academic level of students, and knowledge management can help teachers better understand and master teaching content, thereby better imparting to students and improving their academic level. Finally, effective teacher knowledge management can promote the professional development of teachers, improve teaching quality, and enhance the competitiveness of schools. In modern society, teaching quality is one of the key factors in the competitiveness of schools. Through knowledge management, teachers can better accumulate and apply knowledge, improve teaching quality, and thus enhance the competitiveness of schools. In summary, knowledge management for primary school teachers is of great significance for the development of teachers, students, and schools, and is worthy of in-depth research and exploration. Only through continuous research and exploration can we better apply knowledge management, thereby improving our work efficiency, professional



การประชุมวิชาการนำเสนอผลงานวิจัยระดับชาติและนานาชาติ ครั้งที่ 16
“Global Goals, Local Actions: Looking Back and Moving Forward 2024”
วันที่ 20 มีนาคม พ.ศ. 2567

competence, and teaching level, further enhancing the academic level of students, and enhancing the competitiveness of the school. (He Huakun, 2021)

Research objectives

Firstly, improving the work efficiency of teachers is one of the important goals. Through effective knowledge management, teachers can organize scattered knowledge and apply it to teaching practice, thereby improving teaching efficiency. Secondly, promoting the professional development of teachers is also a key goal. By studying teacher knowledge management, teachers can better understand and master teaching content, improve teaching level, and further promote their professional development. In addition, improving the academic level of students is also an important purpose of researching teacher knowledge management. Through effective knowledge management, teachers can better impart knowledge to students, help them better understand and master course content, and thus improve their academic level. Finally, enhancing the competitiveness of schools is also an important goal of researching teacher knowledge management. Through effective knowledge management, teachers can improve the quality of teaching, thereby bringing competitive advantages to schools and enhancing their competitiveness. In summary, the research purpose of knowledge management for primary school teachers is to improve their work efficiency, promote their professional development, enhance their academic level, and enhance the competitiveness of schools. These goals are interrelated and mutually reinforcing, making important contributions to achieving the optimization of primary education and improving the overall level of education. (He Huakun, 2021)

Description of relevant concepts and research by relevant scholars

Meaning and classification of knowledge

Knowledge has different expressions in China and the West. In Western languages, knowledge can be used as a noun to represent information or messages, or as a verb to refer to the process of knowing. In many literatures in our country, there are also many definitions of knowledge, such as knowledge being the crystallization of wisdom and experience, understanding the attributes and connections of things, manifested in psychological forms



การประชุมวิชาการนำเสนอผลงานวิจัยระดับชาติและนานาชาติ ครั้งที่ 16
“Global Goals, Local Actions: Looking Back and Moving Forward 2024”
วันที่ 20 มีนาคม พ.ศ. 2567

.....

such as perception, representation, concepts, and rules of things. In summary, knowledge is information, data, images, intentions, value standards, and other symbolic products of society that have been organized by human thinking. Knowledge comes from practice and has a reverse effect on practice. Knowledge has multiple forms of expression, closely related to a person's professional skills, outlook on life, values, etc., and also has various forms of storage, such as files, behavioral norms, and the internet. Knowledge is an important component of human civilization and a driving force for social progress. (Wang Changhe, 2018)

Classification of knowledge

From the perspective of whether knowledge is explicit or not, knowledge is divided into two categories: explicit knowledge and implicit knowledge. Explicit knowledge can be externalized and expressed in forms such as text, images, sound, symbols, etc. It can be recorded through media such as printing and electronics. Implicit knowledge, on the other hand, is deeply ingrained in individual actions and experiences, as well as stored in individual beliefs and values, making it difficult to express in external forms. It is reflected in individual behavior and is an inherent knowledge. The Organization for Economic Cooperation and Development (OECD) divides knowledge into four types in its report "Knowledge Based Economy": (1) factual knowledge that knows what it is; (2) Knowledge of the principle of knowing why; (3) Know how to do skills and knowledge; (4) Know who has interpersonal knowledge. This report categorizes the first and second types of knowledge as explicit knowledge, and the third and fourth types as implicit knowledge. The above classification of knowledge helps us better understand and apply it to practice and theory, promoting innovation and development of knowledge. (Wang Qin, 2017)

Knowledge Management Theory and Knowledge Market Concept

Knowledge transformation refers to the process of transforming knowledge from one form to another. There are four forms of knowledge transformation: collectivization, externalization, combination, and internalization. Collectivization refers to the process of creating tacit knowledge through sharing experiences and acquiring the tacit knowledge of others; Externalization refers to the process of expressing implicit knowledge with clear



การประชุมวิชาการนำเสนอผลงานวิจัยระดับชาติและนานาชาติ ครั้งที่ 16
“Global Goals, Local Actions: Looking Back and Moving Forward 2024”
วันที่ 20 มีนาคม พ.ศ. 2567

concepts through dialogue and collective thinking, and becoming explicit knowledge; Combination refers to the process of combining different explicit knowledge to generate new explicit knowledge; Internalization refers to the process of internalizing explicit knowledge into individuals through learning.

In today's era, teachers are facing unprecedented challenges and changes. The trend of educational reform is changing rapidly, the knowledge society is constantly changing, and the requirements for a learning society are increasing day by day. If teachers still hold the teaching mentality of educating "present students" with "past knowledge" to adapt to the "future society" of the past, they will inevitably be eliminated by this era. Teachers must understand how to acquire, apply, create, and innovate knowledge, and must continuously learn and strive in order to stand undefeated in the knowledge economy society. (Cheng Fengnong, 2018)

For schools, the most important asset is the professional knowledge of the knowledge workers in the school - teachers. The professional knowledge of teachers is the core knowledge of schools, and it is also an important weapon for achieving innovation, creation, and efficiency improvement, as well as the sustainable operation and development of schools. Therefore, schools and teachers must apply knowledge management theory to manage and improve their own quality, in order to better grasp the pulse of knowledge, provide students with the best education, and enhance the competitiveness of the entire school.

Teacher knowledge management refers to the application of knowledge management theories and techniques, supplemented by learning organization theory and information technology, to manage explicit and implicit knowledge of teachers, thereby promoting the improvement of teaching efficiency and the development of teacher professionalism and quality, and ultimately enhancing the competitiveness of the entire school organization. Through effective knowledge management, teachers can accelerate the rate of their knowledge metabolism, keep their knowledge up-to-date, and enhance their professional knowledge literacy. As Taiwanese scholar Liao Chunwen once said, "A large part of a teacher's teaching work is related to knowledge. Whether it is preaching, teaching, or solving doubts, it must involve a large amount of knowledge and experience application. However, as they



การประชุมวิชาการนำเสนอผลงานวิจัยระดับชาติและนานาชาติ ครั้งที่ 16
“Global Goals, Local Actions: Looking Back and Moving Forward 2024”
วันที่ 20 มีนาคม พ.ศ. 2567

enter the information society and face educational reform, how teachers face the problems of information explosion and shorter knowledge half-life tests their knowledge management ability." The research and application of teacher knowledge management play a significant role in the implementation of educational reform, the improvement of educational quality, and the professional growth of teachers. (Li Ruixue, 2021)

Conclusion

The core of teacher knowledge management is "teacher centered", which enhances the teaching efficiency and professional development of teachers by enhancing their knowledge management abilities. Teacher centered knowledge management is not only the personal responsibility of teachers, but also the knowledge management of the entire school organization. Schools need to provide a good knowledge management environment and support for teachers, such as building shared knowledge platforms, providing training and guidance, encouraging cooperation and communication, etc. In this way, the overall knowledge level of the school will be improved, and the competitiveness of the school will also be enhanced. Overall, teacher knowledge management is an important task in educational reform. Teachers need to continuously improve their knowledge management abilities, and schools also need to provide a good knowledge management environment for teachers to enhance their teaching level and professional development, and enhance the overall competitiveness of the school. Let's work together to promote the development of teacher knowledge management and educational reform.

References

- Cheng Fengnong, Wang Nianqiang. (2018). Exploration and Reflection on Teacher Practical Knowledge Management: Taking the Practical Experience of Shengli Street Primary School in Jinan City as an Example. *Contemporary Education Science*, 6.
- He Huakun. (2021). The Practical Application of OneNote in Teacher Knowledge Management. *Information Technology Education in Primary and Secondary Schools*, 82-83.

