






Designing and validation of teachers' tacit knowledge disclosure and sharing model to improve their professional competencies

Adel Zafarinejad ¹, Alireza Sadeghi ^{*2}, Hassan Maleki ³, Ne'matullah Musa Poor ⁴, Mahbobeh Khosravi ⁵

1. PhD Student of Curriculum Planning, Allameh Tabatabaei University, Tehran, Iran
2. Corresponding Author: Professor of Educational Management, Department of Education Sciences, Faculty of Humanities and Social Sciences, University of Kurdistan, Sanandaj, Iran E.Mail: sadeghi.edu@gmail.com
3. Professor of Curriculum Planning, Allameh Tabatabaei University, Tehran, Iran
4. Full Professor in Curriculum Planning, Department of Education, University of Hormozgan, Bandar Abbas, Iran
5. Assistant Professor of Curriculum Planning, Allameh Tabatabaei University, Tehran, Iran

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Abstract

Aim: This study was conducted to design and validate a model for disclosing and sharing teachers' tacit knowledge in order to improve their professional competencies in the form of a conceptual model. A qualitative approach and the grounded theory method were used for this purpose. The participants of this research included 20 experienced elementary school teachers with over 15 years of experience from Yasuj, Iran, who were selected through theoretical purposive sampling. Research data were collected through semi-structured interviews. The data analysis method was based on the three-step coding pattern of the grounded theory. Based on the results of this study, 34 main categories were extracted, including ten concerned with the tacit knowledge formation process, 14 with the tacit knowledge disclosure and sharing strategies, and ten with the disclosure and sharing consequences. Finally, after extracting the main categories and determining the central category in the selective coding stage, a paradigm model was developed that entailed conditions, processes, interactions and consequences. The results obtained from the validation of the model based on expert opinions and the Delphi technique demonstrate the good validity of this model.

Keywords: Disclosure, sharing, tacit knowledge of teachers, professional competency

Introduction

Due to the importance of knowledge management in a competitive world, knowing how to improve and develop knowledge disclosure and sharing has become a vital component of success in all organizations (Hau et al., 2013). As the main element in any educational program and based on their particular position, teachers gather valuable knowledge and experience in the field of education, human relations with the students and interpersonal relations, the effectiveness and ineffectiveness of teaching processes, students' learning methods, organization and management of the educational environment. This knowledge, which is gathered as a result of being present and active in the education process, is often categorized as tacit knowledge (Shokohifard et al., 2017).

Michael Polanyi was the first to describe the concept of tacit knowledge or hidden knowledge by admitting that "we know more than we can say". He proposed tacit knowledge as an integral component of knowledge and the fundamental power of the mind (McAdam and McCrory, 2007). Samarasinghe (2019) states that tacit knowledge includes things like experience, perspective and intuition. Haldin Herrgard (2004) lists the most common elements of tacit knowledge as follows: Intuition, skill, insight, know-how, beliefs, mental methods,

and practical intelligence. Paynar and Zhang (2015) believe that the study of teachers' knowledge and curricula shows that this knowledge is more tacit than explicit.

Ifitkhari et al. (1402) found in their research findings that teachers can promote students' learning deeply and sustainably by applying their practical knowledge and professional experience, and through research, dialogue and continuous rethinking of professional practice Correct yourself continuously in the classroom. Yu Han Hong (2020) showed in research that the family history and personal life experiences of teachers are very effective in revealing and discovering practical and tacit knowledge of teachers in classrooms and their decision-making. In their research, Fraser, Biswick, and Karoli (2019) concluded that the process of repeated reflective dialogues among expert and less experienced teachers was effective in revealing the tacit knowledge of science and mathematics expert teachers when using Besar educational resources.

One of the main challenges of knowledge management in education is to convert teachers' tacit knowledge into explicit knowledge and share this type of knowledge with other teachers. Our teachers' knowledge is mostly oral, and their lived experiences, which are considered very valuable intellectual and educational capital for the educational system, are often not stored, recorded and published anywhere. Meanwhile, experienced teachers have extensive tacit knowledge and depriving other teachers of this knowledge causes the loss of this valuable capital in the educational system. The aim of the research was to design a model for disclosing and sharing teachers' tacit knowledge in order to improve their professional competencies. Therefore, the following research questions have been raised:

1. Which factors contribute to the process of tacit knowledge formation in experienced teachers?
2. What strategies do teachers use to disclose and share their tacit knowledge?
3. What are the consequences of disclosing and sharing teachers' tacit knowledge in efforts to improve their professional competencies?

Methodology

To study the desired goal, a qualitative approach and the grounded theory method were used. The participants of this research included 20 experienced primary school teachers with over 15 years of experience selected from Yasuj. Both purposive and theoretical sampling were used in this study. Research data were collected through semi-structured interviews. The method of data analysis was based on the three-step coding model of the grounded theory.

Two methods were used to check the rigor of the findings. The first method was member check, for which the final report, that is, what was produced and modified, was returned to the participants to confirm the accuracy of the results and they were given the opportunity to comment on the findings (Creswell, 2009). The other method was peer check, for which experts who had not participated in the research (ten faculty members) offered their corrective comments and a revision was made to the findings based on the Delphi technique and the final model was thus presented.

Results

To analyze the data, first, the text of the interviews was recorded completely. After recording, the interviews were written on paper to extract the codes. After extracting the primary codes, similar codes were merged and placed in the same group, and a name representing the codes placed in that group was chosen for the category. This categorization led to the extraction of the main themes.

Because of the theoretical value of the data, the researcher analyzed the data concurrently with their collection. Each interview was coded and analyzed before the next interview. A three-step coding method was used to analyze the data. In the open coding phase, the researcher looked for the process. Using an open system, line-by-line coding of the data was reviewed and its process was identified and open coding was performed using the key words or phrases in the text. Then, through the constant comparison of the codes in terms of similarities and differences in the concepts, categories and subcategories were formed and the features and dimensions of each of them were determined. In the axial coding stage, the codes and categories were compared and the relationships between the categories and subcategories were specified to yield a more accurate interpretation of the investigated phenomenon. In the stage of selective coding, the categories were combined, and the main category and its relationship with the other categories were identified, and the data were finally converted into a theory.

Based on the results obtained from the expert teachers' feedback, a paradigm model for disclosing and sharing teachers' tacit knowledge in order to improve their professional competencies is presented in Figure (2). Therefore, using this model in education can improve teachers' performance, empowerment, professional growth and development.

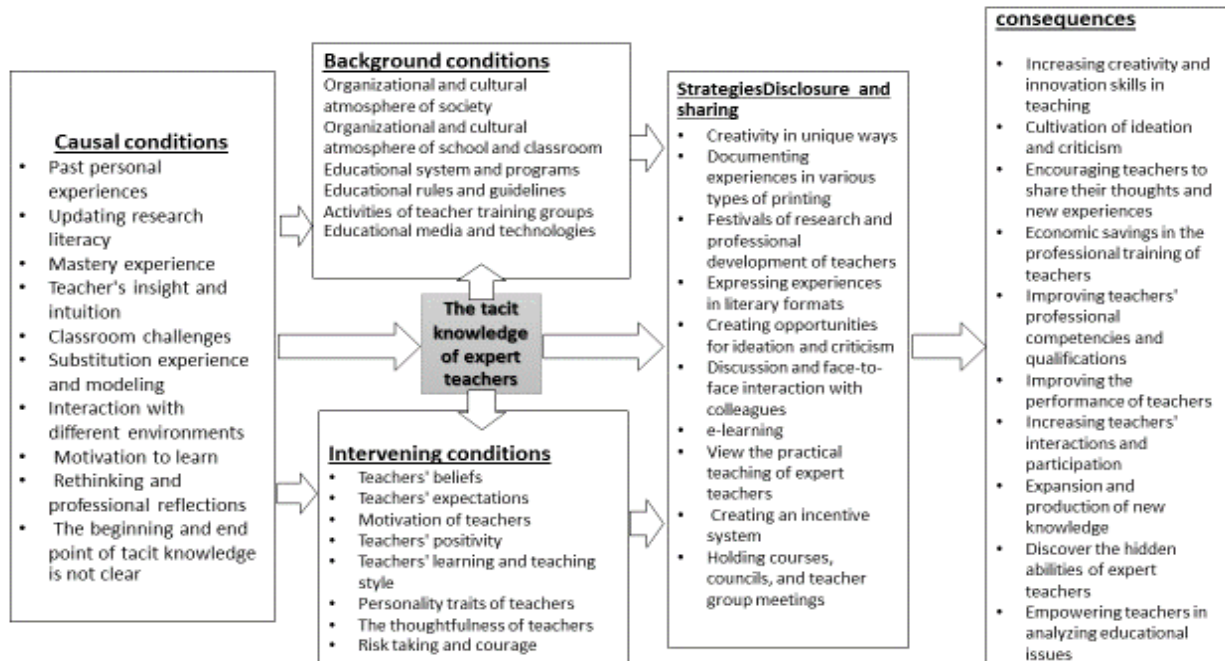


Figure 2. A conceptual model for disclosing and sharing teachers' tacit knowledge in order to improve their professional competencies

Discussion and conclusion

In general, according to the expert opinions, teachers' knowledge can be classified into different types, including tacit knowledge. For this reason, the knowledge of teachers should not be limited to theoretical and systematic knowledge; rather, in the process of education, teachers engage in activities, practices and strategies that are not only derived from official and written scientific sources, but also from their personal lived experiences. If these experiences are compared with the principles and strategies of academic theories of learning, it may well be found out that they are not in great harmony, and this disparity might pave the way for the development of a new theory for those interested in research and theorizing in the field of education, teaching and knowledge development among teachers. Evidently, the experiences and skills, i.e., the tacit knowledge of experienced teachers are valuable fresh sources for the production of educational theories. The scientific literature on this subject also suggests that teachers' tacit knowledge is an important stimulus in the process of creativity and innovation that has an effective role in successful teaching and teacher's high-quality performance.

Implications for Practice

1. It is recommended that schools, the education system and the teacher training university (i.e., Farhangian University) film experienced and successful teachers during work and save these educational videos and upload them to scientific databases, so that amateur teachers, student-teachers and any other interested teachers can access them and share them with each other in different ways.
2. Given their experiences, skills, and capabilities, experienced teachers should be persuaded that their perceptual and intuitive perceptions, insights, and creativity are crucial for creating and producing professional knowledge, and they should also learn to document them by different method.

Limitations

Tacit knowledge was not a subject with which the teachers were already familiar. For this reason, the author had to use more appropriate questions in the interview process to distract the participating teachers' attention from the main discussion, i.e., teachers' tacit knowledge.

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