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### **AFTERWORD**

### EMPOWERING TEACHERS AND STUDENTS FOR ACTIVE SCHOOLS

In Search of a Pedagogy for the Twenty-First Century

#### INTRODUCTION

The global education reform movement is searching for new models for twenty-first century pedagogy. A worldwide agreement exists that learners need to know how to think critically, communicate effectively, and solve problems through negotiation and cooperation (Scott, 2015, p.1). Learners also need support when using new tools for working and familiarizing themselves with various types of information and communication technologies. Competences that cross the boundaries and link different fields are precondition for living in the complex world of today. These competences are needed for dealing with local and global citizenship, personal and social responsibilities, as well as cultural awareness and tolerance (see Binkley, Erstad, Raizen, Ripley, Miller-Ricci, & Rumble, 2012, pp. 18–19; FNBE, 2016, p. 21).

Adopting twenty-first century skills generally has an overall transformative effect on schools. The nature and extent of change can range from conservative to fundamental. During the conservative type of educational reforms called additive change, teachers tend to add new objectives, contents, and technology to their old practices. During an assimilative change teachers would modify their curricula and teaching methods. More emphasis would be placed on creativity, problem solving, and cooperation. During a fundamental change, teachers would need to change their models of action and thinking completely. Then they would be able to develop the school into a learning community (Scardamalia, Bransford, Kozma, & Quellmalz, 2012, pp. 238–239). All staff members must participate in this development work in order to achieve real changes in the school's internal and external reality as well as to develop the school organization and make its activities increasingly student centered.

### UNDERSTANDING TEACHER EDUCATION REFORMS IN CHINA AND JAPAN

The fundamental goal of educational reform in China and Japan is to improve the quality of teacher education. These two countries presently focus on improving teaching professionalism, standardizing and upgrading teacher education, and constructing a lifelong-learning system for school teachers. Behind these common features or tendencies, there are some common or similar background factors, the most prominent of which is the informationization of society. The explanations for nearly all the common features or tendencies in Chinese and Japanese teacher education reforms and developments can be found in the informationization of society.

On the other hand, differences between Chinese and Japanese teacher education reforms and developments are easily identified. One of the biggest differences may be that China attaches greater importance to structural reforms in teacher education, while Japan focuses more on intensive construction. To a certain extent, it can be argued that the goals of structural reforms in China since the 1990s are similar to those of Japanese teacher education reform after the Second World War.

Compared to Japan, China is "making up for its missed lesson" through structural reforms. One of the important reasons for this difference is that the two countries are not at the same developmental stage. China is experiencing a social transformation from an agrarian to an industrial and an information society simultaneously. Japan, in contrast, is in a transitional process from an industrialized to an information society. China is experiencing the transformation from a planned to a market economic system. Japan, for its part, has long had a developed market economic system. Therefore, China has to finish work that Japan has already finished. Attaching more importance to structural reforms does not mean that intensive construction does not play a central role for Chinese teacher education. It may be more accurate to say that the structural reforms are a necessary basis or precondition for intensive construction and improvement of teacher education in China at its present stage.

It is too early to evaluate the effects of Chinese and Japanese teacher education reforms since the 1980s, as the reforms in both countries are still continuing. Nevertheless, certain issues or problems have already been pointed out by many people, even though they are different in the two countries. Here, we would like to point out one common problem in the teacher education reforms under discussion. An aspect of de-professionalization can be found in the reforms aiming at teacher professionalization. In the era of reforms and accountability, school teachers are regarded as key actors in educational reforms, and they and their professionalism are highly valued. At the same time, school teachers are treated as "targets" of the reforms and considered as "objects" to be developed. The subjectivity and autonomy of teachers in their own development does not receive due attention. Fujita and Dawson (2007, pp. 52–53) observed that current neo-liberal and market-oriented education reforms seemed to have had the effect of undermining the bases for teacher cooperation, thus discouraging teachers from taking initiative, and damaging their

sense of efficacy and confidence, thereby deteriorating the quality of teaching and schooling in Japan. Fujita and Dawson's observation is also true of China. If prospective and practicing teachers are to be educated to become professionals, they should be treated as such, with their subjectivity and autonomy highly respected in the process of teacher education. In this respect, China and Japan still have a long way to go.

## TOWARD TWENTY-FIRST CENTURY PEDAGOGY IN FINLAND AND ELSEWHERE

The new national educational policy in Finland supports educational practices based on active learning. The main principles of the curriculum reform currently being implemented there support a school culture that lays stress on the autonomous control of learning. It encourages flexibility and develops interactiveness both within the school and between the school and the surrounding community. At the same time as this process is taking place in Finland, many countries are moving in the opposite direction in the educational principles and practices being adopted.

The Finnish curriculum reform favors active learning based pedagogy. Active learning implies that students are mentally and physically active. They guide their own learning, invent solutions to problems, define and interpret concepts as well as reflect on their interrelations. It is also important that students interact with their environment. Through active learning, students enhance their reflective thinking as well as their metacognitive knowledge and skills.

Active learning requires conditions that allow for immediate and meaningful experiences in genuine learning situations. Students create new knowledge by utilizing prior learning when they reflect on their experiences gained through concrete activities. Learning is active when the subject matter to be learned is expressed as problems and questions, for which students seek solutions guided by their inner motivation, either independently or in small groups. Of prime importance in the functioning of these small groups is the interplay between students as they participate in discussions and joint reflection. The opportunity to make choices at the various stages of the learning process is essential for the empowerment of students as a result of the activities. In the learning process, students evaluating how well they have attained their own targets is important. They should also be able to critically evaluate their information and the development of learning skills in their group (Nevalainen & Kimonen, 2016, p. 79).

In the future, schools in Finland and other countries might change and develop in diverse directions. Curriculum development continuously requires new data documenting successful models of action and practices in schools. Schools and their associate interest groups need qualitative and contextual information that can probably best be acquired from school-based case studies. The experiences of teachers and other participants during their careers as implementors of the new curriculum should also be utilized in the pre-service and in-service training of new teachers and

others, such as administrative and social personnel. One important objective of this training is to develop forms of education offering those involved an opportunity for constructing internal models of action (Kimonen & Nevalainen, 2005, pp. 627–630). Educators can connect different theories of learning and teaching to these models of action later to be utilized in their work. During the continuous formation of models of action, an essential role is played by the experiences gained in practical work as well as by critical deliberation on these experiences. The goal is to learn strategies that change school practices by means of transformative learning.

#### REFERENCES

- Binkley, M., Erstad, O., Herman, J., Raizen, S., Ripley, M., Miller-Ricci, M., & Rumble, M. (2012).
  Defining twenty-first century skills. In P. Griffin, B. McGaw, & E. Care (Eds.), Assessment and Teaching of 21st Century Skills (pp. 17–66). Dordrecht, The Netherlands: Springer.
- FNBE. (2016). *National Core Curriculum for Basic Education 2014* (Publication 2016, No. 5). Helsinki, Finland: Finnish National Board of Education.
- Fujita, H., & Dawson, W. P. (2007). The qualifications of the teaching force in Japan. In R. M. Ingersoll (Ed.), A Comparative Study of Teacher Preparation and Qualifications in Six Nations: Consortium for policy research in education (pp. 41–54). Retrieved July 12, 2011, from http://www.cpre.org/images/stories/cpre\_pdfs/sixnations\_final.pdf
- Kimonen, E., & Nevalainen, R. (2005). Active learning in the process of educational change. *Teaching and Teacher Education*, 21(6), 623–635.
- Nevalainen, R., & Kimonen, E. (2016). The implications of curriculum reform for the dimensions of school culture. In O.-P. Salo & M. Kontoniemi (Eds.), *Towards New Learning: University of Jyväskylä Teacher Training School.* 150 years of developing school (pp. 57–87). Jyväskylä, Finland: University of Jyväskylä Teacher Training School.
- Scardamalia, M., Brandsford, J., Kozma, B., & Quellmalz, E. (2012). New assessments and environments for knowledge building. In P. Griffin, B. McGaw, & E. Care (Eds.), Assessment and Teaching of 21st Century Skills (pp. 231–300). Dordrecht, The Netherlands: Springer.
- Scott, C. L. (2015). The Futures of Learning 3: What Kind of Pedagogies for the 21st Century (Education Research and Foresight. Working Papers, No.15). Paris, France: UNESCO.