Chapter 5

Promoting Student Creative Problem-Solving Skills: Do Principal Instructional Leadership and Teacher Creative Practices Matter?

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ABSTRACT

Creative problem solving has emerged as one of the most sought skill sets by employers. The purpose of this chapter was to comparatively examine the relationships between principal instructional leadership, teacher creative practices, and students’ creative problem-solving skills in public and private schools in the United States context. Special attention was given to the relationship patterns between variables for the higher (1st quartile) and lower performing (4th quartile) student populations. The data source was the PISA 2012 data sets. Findings showed that there were similarities and differences between the relationships of study variables in two schooling systems. Findings identified similar and different relationship patterns between the study variables in these two distinct school settings. Findings also showed relationship patterns differed for lower and higher achieving student groups in each schooling system.

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BACKGROUND TO THE STUDY

Today’s global economy requires its citizens to possess a multitude of skills to be competitive. In a recent survey by the National Association of Colleges and Employers (2017), more than two-thirds of employers reported that they look for employees who demonstrate strong creative problem-solving, teamwork, and communication skills. For the United States to remain competitive in the 21st century, our citizens must be equipped with creative problem-solving skills. What is needed in today’s society is the ability to look at things in a different way in order to devise multiple, creative solutions to complex situations. Much of the creativity is developed during the early years (Aniello, 2003), and the most effective way to ensure that U.S. citizens learn creative problem-solving techniques is to teach these skills to the children in the school systems. As today’s schools prepare students for mental rather than manual roles in completing society’s needed work, principals and teachers need to assure that students will acquire the skills to be able to use their brains’ creativity (Stein, 1974).

Creative thinking is an important aspect of problem-solving. Creativity is conducive to learning, student achievement, and cognitive development (Rinkevich, 2011). Tseng, Chang, Lou and Hsu (2013) found when students were able to apply creative problem-solving they gained superior outcomes in regard to group interaction, creativity, self-assessment competence, and social comparison, which led to high-level solutions to problems. The 21st century is full of opportunities for America’s students. However, they need to have higher levels of problem-solving skills to be productive in today’s society. A study conducted by Schacter, Thum, and Zifkin (2006) indicated that creative thinking raised student achievement at the elementary school years. The ideas in this study along with the findings of Tseng, Chang, Lou and Hsu (2013), indicate that pushing our students to higher levels of creative problem-solving skills will result in a stronger workforce for the future of America.

Teachers and principals play key roles in creating and promoting creativity in classrooms and schools. Creativity can be endorsed or ignored in national decisions as well as daily choices made by practicing school teachers and principals across America (Chant, Moes & Ross, 2009). This impacts the degree to which creativity enters the school experience. Teachers can play a crucial role in the development of students’ creative potential either positively or negatively (Sorgo, et al., 2012). According to Honig (ND), teachers can promote students’ creativity by several different strategies. Teaching students of self-worth, interaction with others, speaking up and expressing her opinion, and being open for new ideas and inquiry are some of these strategies which positively influence students’ creativity and problem-solving skills. Teachers’ critical position as the sole implementors of curriculum gives them the unique roles of delivering curriculum in ways which may promote or hinder students’ creative problem-solving. None of the other actors in educational settings can hold such critical gateways for students’ critical problem-solving. As Harter (1999) stated, teachers also can role model creativity and be able to evoke more creative thinking of students. Teacher creativity encourages student creativity.

Research emphasizes the significance of empowering teachers for them to be able to promote students’ creative problem-solving skills. Empowering the teachers with the control over their classrooms and their students can create an atmosphere that raises the level of creative thinking. According to Pardo (2002) it is necessary to link assessment and creativity more effectively. A highly prescribed curriculum combined with high stakes national testing gives teachers little scope for personal creativity in their day-to-day teaching, which discourages student creativity (Osborn & McNess, 2002). Teachers in public schools are bound by the high stakes national testing, which leads to less personal creativity in their teaching. Many private schools are able to create their own curriculum based upon the needs to their students. By