Annotated Biography

Chenaru, A., Mojaveru, A., & Heydari, S. (2016). Effects of Knowledge Management on Self-Efficacy of School Principals. *International Business Management,* *10*(11), 2293-2299.

 The aim of this descriptive study was to investigate the relationship between the establishment of Knowledge Management and self-efficacy of school principals of a boy’s secondary high school in Tehran, Iran. The population of this study consisted on high-school principals (N =204). In this study, the researchers utilized clustered and stratified sampling methods. The results of the data analysis demonstrated a significant relationship between in-service training and self- efficacy of school principals.

Mciver, D., Fitzsimmons, S., & Flanagan, D. (2016). Instructional Design as Knowledge Management. *Journal of Management Education,* *40*(1), 47-75. doi:10.1177/1052562915587583

 This peer reviewed article draws on the knowledge management literature sand specifically the knowledge-in-practice framework to develop a theoretical process for choosing instructional methods. The article further connects the process of underlying knowledge structure with established instructional methods. The research further classifies the underlying knowledge structure of learning objectives along the dimensions of tastiness and learnability and further matches’ knowledge structures with effective instructional methods. The authors of this article propose that the integration of knowledge management with instructional methods, and their established framework can help instructors determine the best instructional methods to meet prescribed learning objectives.

Assaraf, O. B., & Orion, N. (2005). Development of system thinking skills in the context of earth system education. *Journal of Research in Science Teaching,* *42*(5), 518- 560. doi:10.1002/tea.20061

 This study deals with the development of system thinking skills at the junior high school level. The sample population included about 50 eighth-grade students from two different classes of an urban Israeli junior high school who studied an earth systems-based curriculum that focused on the hydro cycle. The research combined qualitative and quantitative methods and involved various research tools, which were implemented in order to collect the data concerning the students’ knowledge and understanding before, during, and following the learning process. The result of this analysis indicated that the development of system thinking in the context of the earth systems consists of several sequential stages arranged in a hierarchical structure. Two main factors were found to be the source of the differential progress of the students: (a) the students’ individual cognitive abilities, and (b) their level of involvement in the knowledge integration activities during their inquiry-based learning both indoors and outdoors.

Ben-Zvi-Assaraf, O., & Orion, N. (2010). Four case studies, six years later: Developing system thinking skills in junior high school and sustaining them over time. *Journal of Research in Science Teaching,* *47*(10), 1253-1280. doi:10.1002/tea.20383

 This study examines the process by which system thinking perceptions develop within the context of a water cycle curriculum. The employed research tools included observations, semi-structured interviews, and a number of ‘‘concept viewing’’ tools (drawings, concept maps, and repertory grids). Out of the data, four distinct ‘‘stories,’’ each presenting a different way of constructing hydro system mental models, are described. The main conclusion reached from this research suggest that students develop their systems mental models and remember the learned material based on learning patterns that tend to remain unchanged over time. Subsequently, in order to facilitate efficient and lasting construction of students’ system models, learning experiences should harness these, and especially the meta-cognitive learning pattern, which holds special significance for constructing systems.

Krasny, M. E., & Tidball, K. G. (2009). Applying a resilience systems framework to urban environmental education. *Environmental Education Research,* *15*(4), 465- 482.doi:10.1080/13504620903003290

 The author’s research contends that an environmental education program in which learning is situated in civic ecology practices also has the potential to address both community and environmental goals. Further, this systems approach suggests that civic ecology practices and related environmental education programs may foster resilience in urban social-ecological systems. By proposing interrelationships among natural resources management, environmental education, and social- ecological systems, the authors hope to open up discussion of a research agenda f focusing on the role of environmental education in systems processes and resilience.

Conclusion

 The research provided above reflects work being explored in both the areas of knowledge management and system thinking. I have selected research that tends to address the above issues in both primary and secondary schools. Understand how this work is inner-connected to both the goals and directives experience by many districts helps provide the stage to start action research that has a direct impact on the community to be served.

Schools, like many organizations, have to adjust to constant demands in the face of daunting challenges inherent in the process of change. School change can be seen as an element that will always exist, and is a non-negotiable part of the educational system. Changes in federal, state and local requirements, student population, curriculum, instruction, assessment, and faculty are just a few of the areas that will always exist in schools (Tomal et al., 2013). It is this change that is essential in order to effectively manage and lead school improvement. The participation by all stakeholders, from the school board to the student population, is needed in order to create a climate of discussion and action. Change agents need collaboration with stakeholders to respond to educational needs and make meaning of it. These reactions can be dealt with more effectively if participants can connect personal meaning to the change experiences. Change drivers include compliance mandates that require the government and all stakeholders to plan, implement, and evaluate change. Moving from compliance to commitment for change can be assessed in tangible and intangible outcomes. The change agent can use outcomes to measure and assess the process results of change and to develop a deeper understanding of the needs of the organization.

Reference

Tomal, D. R., Schilling, C. A., & Trybus, M. A. (2013). *Leading school change:*

*Maximizing resources for school improvement*. Lanham, MD: R&L Education.