Diffusion of Innovations and Science-Based Practices to Address Barriers to Learning & Improve Schools: A Series of Information Resources

As calls for addressing barriers to student learning and improving schools increase, new directions are imperative. And, this involves more than tinkering with prevailing approaches. The need is for developing major innovations (e.g., comprehensive school-level prototypes) and taking them to scale throughout a school district.

The success of all this depends on stakeholders in public education becoming more knowledgeable about the complexities and strategies related to diffusion of innovations, making major systemic changes, and developing a *sophisticated* understanding of the role of empirically-based practices.

To these ends, the Center is producing a series of resources, such as this one, to provide informational aids for use as tools in policy and practice analyses, research, education, and school improvement planning.

Some Recent Work Related to Systemic Change Involving Innovation in Complex Organizations

The recent work of Choi and his colleagues is broadening the conceptualization of innovation implementation. They stress the transactional nature of the process and the different levels of changes that are undergone by the innovation and its users and the role of emotional reactions.

The Center for Mental Health in Schools is co-directed by Howard Adelman and Linda Taylor and operates under the auspices of the School Mental Health Project, Dept. of Psychology, UCLA, Los Angeles, CA 90095-1563. Phone: (310)825-3634.

Some Recent Work Related to Systemic Change Involving Innovation in Complex Organizations

The work of Jin Nam Choi (Seoul National University) and his colleagues includes a focus on *Antecedents and Emergent Forms of Organizational Innovation.*

In an 2010 abstract about recent work , he states:

> "Departing from the prevailing view in the literature that dichotomizes the end result of innovation implementation as either resistance or acceptance, we advance an alternative model that broadens the conceptualization of innovation implementation. We attend to the interaction between innovation and its users and propose that innovation implementation must be characterized by incorporating different levels of changes that are undergone by the innovation and its users. Specifically, we identify four distinct forms of implementation: mechanical implementation, learning, reinvention, and mutual adaptation. Using those concepts, we develop a conceptual framework that explains different forms of innovation implementation as functions of innovation properties, individual characteristics, and contextual factors related to implementation. Our theoretical framework thus contributes to the literature by acknowledging that innovations in organizations often take on a life on its own and modify itself unintentionally, imposing the need for individual adaptation and strategic management of implementation processes."

In a 2010 article, Choi and his colleagues focus on the role of emotions in understanding employee behavior. The abstract states:

> "The present study identifies employees' emotional reactions toward innovation as a mediating process that explains the effects of institutional environment on collective innovation use in work units. We further employed the appraisal theory of emotion and affective events theory (AET) to conceptualize the relationships between cognitions and emotions involving innovation. This expanded conceptual model was tested using multi-source data from 1150 employees and managers of 81 branches of a Korean insurance company that were implementing a new practice called Life-Long Learning. Two contextual factors (management involvement and training for innovation) significantly predicted employees' collective cognitive appraisal of the innovation (perceived usefulness and perceived ease of use). Collective cognitive appraisal in turn predicted employees' positive and negative emotions toward the innovation, which completely mediated the effects of contextual factors and cognitive appraisal on implementation effectiveness (consistent and committed use of the innovation in the branch). This study highlights the critical role of emotions in the context of innovation implementation, and shows the need for greater attention to emotional processes in examining organizational innovations."

Citation: Choi, J.N., Sung, S.Y., Lee, K. & Cho, D. (2010). Balancing cognition and emotion: Innovation implementation as a function of cognitive appraisal and emotional reactions toward innovation. *Journal of Organizational Behavior*,
http://onlinelibrary.wiley.com/doi/10.1002/job.684/pdf