

Learning Agreement for Core Knowledge Area Module Number 3:  
Principles of Social Systems

School Change and the Integration of  
Video Games as an Educational Technology

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*Overview of the KAM*

This Knowledge Area Module (KAM) will focus on developing a working theory of school change that can be used to guide the integration of emerging educational technologies, such as video games and simulations. To produce a preliminary theory, the breadth portion of the KAM will begin with a synthesis of Senge, Evans, and Fullan's work in school change. Then to further develop the theory, this will be followed in the depth portion of the KAM by a synthesis of prominent theories of professional learning communities. Prominent theorists who will be included in this examination are DuFour & DuFour, Wald & Castlebury, Bumpers, Roberts & Pruitt, Southwest Educational Development Laboratory, and Stone & Cuper. In addition, an annotated bibliography of 15 articles will also be amended to the depth demonstration. Throughout both the breadth and the depth portions of the KAM, these theories of school change will be related to the integration of emerging educational technologies, such as video games and simulations. Finally, the application section will conclude with the explicated design of a three-hour professional development session to provide educational leaders with guidance in facilitating the process of implementing school change of this sort at their sites and in their programs.

## Breadth

### *Breadth Objective*

Synthesize the work of Senge, Evans, and Fullan to produce a preliminary working theory of school change that can be used to guide the integration of video games as an educational technology.

### *Breadth Demonstration*

A scholarly paper of approximately 30 pages will present a preliminary working theory of school change that can be used to guide the integration of video games as an educational technology.

### *Breadth Introduction*

The purpose of this breadth portion of the Knowledge Area Module (KAM) is to synthesize the work of Senge, Evans, and Fullan to produce a preliminary working theory of school change that can be used to guide the integration of video games as an educational technology. Senge (1990) introduced the idea of a learning organization, explored ways in which organizations can manifest learning disabilities, and suggested a number of disciplines for fostering a learning organization, including the pursuit of systems thinking, personal mastery, mental models, shared vision, and team learning. He provided concrete examples of his theories at work in various industries (Senge et al., 1994), and later focused specifically on their application in the field of education (Senge et al., 2000). Evans (1996) was also interested in the nature of change and the capacity of organizations to implement and sustain changes. He was particularly concerned with the

culture of resistance found in many schools, and in ways that an authentic educational leader might understand reluctant faculty and thus be able to provide vision tempered by realism. Evans (2004) also considers the role of students' families in changing school cultures. Though Fullan's early work focused on helping school administrators survive in a system of change over which they had no control (Fullan, 1991, 1997, 1998), his *Change Forces* trilogy (Fullan, 1993, 1999, 2003a) focused on helping them to understand and even influence the complex systems that surrounded them. His newer works focus on the complexity of reform (2001b), leading in a culture of change (2001a), the moral purpose of this leadership (2003b), and strategies for large-scale sustainable reform (2004). Examining these theories and synthesizing a preliminary working theory of school change will offer some guidance to educational leaders who hope to effect positive changes in their institutions, such as the integration of video games - a technology that is often resisted by school faculty and students' families - for purposes of teaching and learning in a formal k12 educational environment.

### *Breadth References*

- Evans, R. (1996). *The human side of school change: reform, resistance, and the real-life problems of innovation*. San Francisco: Jossey-Bass.
- Evans, R. (1998). Changing families changing schools. *Independent School Magazine*. Winter 1998.
- Evans, R. (2000). Why a school doesn't run – or change – like a business. *Independent School Magazine*. Spring 2000.
- Evans, R. (2004). *Family Matters: how schools can cope with the crisis in childrearing*. San Francisco: Jossey-Bass.
- Evans, R. (2005). Reframing the achievement gap. *Phi Delta Kappan*. May 2005.
- Fullan, M. and Hargreaves, A. (1991). *What's worth fighting for? Working together for*

- your school*. New York: Teachers College Press.
- Fullan, M. (1993). *Change forces: probing the depth of educational reform*. New York: RoutledgeFalmer.
- Fullan, M. (1997). *What's worth fighting for in the principalship/headship?* New York: Teachers College Press.
- Fullan, M. (1999a). *Change forces: the sequel*. New York: Taylor & Francis Group.
- Fullan, M. and Hargreaves, A. (1999b). *What's worth fighting for out there?* New York: Teachers College Press.
- Fullan, M. (2001a). *Leading in a culture of change*. San Francisco: Jossey-Bass.
- Fullan, M. (2001b). *The new meaning of educational change*. (3<sup>rd</sup> edition). New York: Teachers College Press.
- Fullan, M. (2003a). *Change forces with a vengeance*. New York: RoutledgeFalmer.
- Fullan, M. (2003b). *The moral imperative of leadership*. Thousand Oaks, Ca: Corwin Press.
- Fullan, M. (2004). *Leadership and sustainability*. Thousand Oaks, Ca: Corwin Press.
- Senge, P. M. (1990). *The fifth discipline: the art and practice of the learning organization*. New York: Currency Doubleday.
- Senge, P. M., Kleiner, A., Roberts, C., Ross, R., & Smith, B. (1994). *The fifth discipline fieldbook: strategies and tools for building a learning organization*. New York: Currency Doubleday.
- Senge, P., Kleiner, A., Roberts, C., Ross, R., Roth, G., & Smith, B. (1999). *The dance of change: the challenges to sustaining momentum in learning organizations*. New York: Currency Doubleday.
- Senge, P. M., Cambron-McCabe, N., Lucas, T., Smith, B., Dutton, J., & Kleiner, A. (2000). *Schools that learn: a fifth discipline fieldbook for educators, parents, and everyone who cares about education*. New York: Currency Doubleday.

NOTE: References may be added or removed throughout the process of writing the breadth portion of the KAM.

## Depth

### *Depth Objective*

Building upon the conclusions of the breadth portion, synthesize prominent theories of professional learning communities to further develop a working theory of school change that can be used to guide the integration of video games as an educational technology. Prominent theorists who will be included in this examination are DuFour & DuFour, Wald & Castlebury, Bumpers, Roberts & Pruit, the Southwest Educational Development Laboratory, and Stone & Cuper.

### *Depth Demonstration*

Building upon the conclusions of the breadth portion, a scholarly paper of approximately 30 pages will present a further developed working theory of school change that can be used to guide the integration of video games as an educational technology. In addition, an annotated bibliography of 15 articles will be amended to the paper.

### *Depth Introduction*

The purpose of this depth section of the Knowledge Area Module (KAM) is to build upon the conclusions of the breadth portion by synthesizing prominent theories of professional learning communities to further develop a working theory of school change that can be used to guide the integration of video games as an educational technology. Prominent theorists who will be included in this examination are DuFour & DuFour, Wald & Castlebury, Bumpers, Roberts & Pruit, the Southwest Educational Development Laboratory, and Stone & Cuper.

The DuFours are the most influential and prolific of these authors. Their work focused on school reform through creating communities that: share a mission, vision, and goals; engage in collective inquiry; are action and results oriented; and are committed to continuous improvement (DuFour & Eaker, 1998). These professional learning communities share much in common with Senge's (1990) learning organizations. The DuFours also focused on reculturing schools to become learning communities (Eaker, DuFour, & DuFour, 2002), and how professional learning communities should respond when their goals are not being met (DuFour, DuFour, Eaker, & Karhanek, 2004).

Many other theorists also contributed to the literature on professional learning communities. Wald and Castlebury (2000) focused on a theoretical framework and practical guidance for those wishing to create a professional learning community at their school. Bumpers (2003) pragmatic contribution to the field included a review of literature and provided tools such as self-assessments and case studies to guide practicing administrators. Roberts and Pruitt (2003) also provide a variety of collaborative activities and strategies for professional learning communities. As part of their critical issues in educational leadership series, the Southwest Educational Development Laboratory (2003c) released a volume focused on changing schools through professional learning communities. Finally, Stone and Cuper (2006) wrote about the inspirational factor of teacher leadership in professional learning communities.

Examining this body of work and further developing a working theory of school change will offer additional guidance to educational technologists who hope to effect positive changes in their institutions, such as the integration of video games - a technology that is often resisted by school faculty - for purposes of teaching and learning in a formal k12 educational environment.

*Depth References*

- Bumpers, H. J. (2003). *Reculturing schools as professional learning communities*. Lanham, MD: ScarecrowEducation.
- DuFour, R., Eaker, R. (1998). *Professional learning communities at work: best practices for enhancing student achievement*. Bloomington, IN: Solution Tree.
- DuFour, R., Eaker, R., & DuFour, R., (Eds.). (2005). *On common ground: the power of professional learning communities*. Bloomington, IN: Solution Tree.
- DuFour, R., Dufour, R., Eaker, R., Karhanek, G., (Ed.). (2004). *Whatever it takes: how professional learning communities respond when kids don't learn*. Bloomington, IN: Solution Tree.
- Eaker, R., DuFour R., & DuFour, R. (2002). *Getting started: reculturing schools to become professional learning communities*. Bloomington, IN: National Educational Service.
- Roberts, S. M., Pruitt, E., Z. (2003). *Schools as professional learning communities: collaborative activities and strategies for professional development*. Thousand Oaks, Ca: Corwin Press.
- Southwest Educational Development Laboratory. (2003). *Learning together, leading together: changing schools through professional learning communities*. New York: Teachers College Press.
- Stone, R., Cuper, P. H. (2006). *Best practices for teacher leadership: what award-winning teachers do for their professional learning communities*. Thousand Oaks, Ca: Corwin Press.
- Wald, P. J., Castlebury, M. S. (2000). *Educators as learners: creating a professional learning community in your school*. Alexandria, VA: Association for Supervision & Curriculum Development.

NOTE: References may be added or removed throughout the process of writing the depth portion of the KAM. In particular, additional articles will be identified for use in the annotated bibliography.

## Application

### *Application Objective*

Design a three-hour hands-on professional development session to provide educational leaders with guidance in facilitating the process of school change necessary to integrate video games as an educational technology.

### *Application Demonstration*

A written rationale of about 10 pages, appended with session materials, will describe the professional development session, the justifications behind it, and the ways in which theories of school change and professional learning communities are put into practice to guide educators in the implementation of emerging educational technologies, such as video games and simulations.

### *Application Introduction*

The purpose of this application portion of the Knowledge Area Module (KAM) was to design a three-hour hands-on professional development session to provide educators with guidance in the integration of emerging educational technologies, such as video games and education. The first hour provides participants with an overview of the theories discussed in the breadth and depth portion of this KAM. The second hour then allows participants the opportunity to experience working as a professional learning community. They will prepare a mock plan for integrating video games and simulations into the curriculum of a hypothetical school. Activities and strategies will be modeled as the collaborative teams develop a shared mission, vision, and values for their plan,

participate in collective inquiry, a plan of action, a process for continuous improvement, and a plan for assessing their results. The final hour provides a facilitated discussion of how participants might return to their own practice and implement these theories and practices. Though the actual delivery of this professional development session is beyond the scope of the KAM, it is designed for use as a pilot class for educators in the Technology Center at the Orange County Department of Education during the Fall quarter of 2006.

### *Application References*

NOTE: Though there may be additional references listed in the final product, it is anticipated that most references for this portion of the KAM will be drawn from the previous sections. There are no additional references to list at this time.