

Indicators of Site Readiness for Innovation: Systems Thinking in Schools
 by Tracy Benson, Anne LaVigne, Sheri Marlin, Joan Yates

Systems thinking is a unique innovation with tremendous potential to improve educational opportunities for all children. However, we know that the application of systems thinking in schools is most effective when other conditions in the school complement its implementation. The words below are an attempt to describe the optimal school culture in which to nurture systems thinking. **There is a definite danger in interpreting these indicators as a checklist, all needing to be present in order for a systems thinking in schools initiative to prosper, which is not the case.** Various combinations of these descriptors have been present to varied degrees in successful demonstration sites.

Indicator	Description
<i>Learner-centered learning</i>	Teachers should be open to an active role by students in the learning process. Further, these schools show evidence of meaningful, relevant, interdisciplinary curriculum and project-based approaches. In these schools the teacher often assumes the role of coach and advisor. Teachers whose pedagogy is heavily focused on lecture or teacher-directed methods will have more difficulty adapting to a systems thinking approach.
<i>Evidence of inquiry in classroom practice</i>	The use of inquiry or a constructivist approach to learning is highly complementary to a systems thinking approach. The use of systems thinking in the classroom increases quickly when teachers are able to use student responses and questions in their lessons. Students who feel some ownership for their own learning and who have experience exploring topics of personal interest are applying skills that will help them become systems thinkers.
<i>Varied measures of student achievement</i>	Demonstration site teachers and administrators actively seek and develop measures of student achievement that identify success indicators beyond the scope of traditional standardized tests. Collaborative action research has successfully utilized and developed alternative measures.
<i>Commitment to life-long learning</i>	All staff and students exemplify this commitment. Life-long learners are intellectually curious, ask questions, pursue topics of interest and openly express their desire to learn.
<i>A culture of teaming and openness to learning from one another</i>	Teachers need to be willing to learn from and along with their colleagues in the application of systems thinking to classroom learning. Likewise, administrators who are effective in supporting the implementation of systems thinking in their buildings must also be willing to learn from their staff. The use of site-based decision making or evidence of teacher leadership in a building may indicate this willingness to learn collectively. Teachers who have a history of learning together either through teacher-led professional development or frequent collaborations to review student work show evidence of team learning.

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<i>Involvement by the whole staff, where staff includes certified, classified, and administrative personnel, preferably at the school and district level</i>	Full support by all stakeholders is particularly important to the sustainability of the innovation. Teacher commitment to applying the tools of systems thinking is particularly helpful. It has been the experience of the project that when teachers are forced to attend the training their success is diminished. Some teachers have been very effective as "lone rangers" working to build their personal systems thinking capacity without the benefit of a team, but this is clearly not optimal. A supportive administrator, one who brings the idea to staff and then finds ways to elicit their support, or one who is willing to support staff members and participate in the learning, produces the most effective results.
<i>Baseline teacher competence</i>	The application of systems thinking to daily instruction can be complex and is best undertaken by teachers who have other essential components of planning, assessment, instruction and management in place.
<i>Evidence of self-starting in the use of systems thinking in classroom and organization ("moving train")</i>	It is highly desirable that schools evidence some familiarity or interest in the systems thinking approach through prior use or experimentation with the tools organizationally or instructionally.
<i>A whole-community approach</i>	Sustainability of any innovation requires the support of the community. Any school system desiring to comprehensively apply the tools and habits of systems thinking must have a very specific plan for engaging the entire community, including parents and the business community. When the community is enrolled, the innovation tends to flourish even when school or district leadership transitions occur.
<i>Student involvement in organizations outside of school, e.g. government, community</i>	Schools ready for systems thinking are schools that encourage student voice in a variety of ways. Enthusiastic students will be a hallmark of this indicator.