Change Principles

Overview: The Concerns-Based Adoption Model (CBAM) provides both a theoretical model and an extensive research base (over 3,000 studies) to view change in schools (read technology integration). The following principles have been identified through CBAM research as being critical for the change process in schools. These principles can provide school leaders and change facilitators with a number of important insights as they plan for and manage the adoption of innovations in their school districts and buildings.

Note: For purposes of this discussion, innovation refers to technology integration into curriculum and instruction.

Change Principle 1: Change is a process, not an event.

- Discussion: Most changes in education take between 3-5 years to implement. More complex innovations (like technology integration) will likely take even longer to implement. If change is perceived as a process, plans for change tend to be more strategic. If change is perceived as an event, plans for change tend to be more practical. Furthermore, many change planners fail to account for grief as part of the change process. People involved in change often grieve the loss of comfortable and familiar ways of doing things and this is often misinterpreted as resistance to change.

- Implications: Putting technology in classrooms and then holding an inservice is not a good strategy for change implementation. Since change is a process, change leaders must plan accordingly and include ongoing, timely, and appropriate interventions to move the change process along. CBAM provides three powerful tools to help measure this progress: (1) the Stages of Concern Questionnaire (SoCQ) measures the individual’s feelings about an innovation; (2) the Levels of Use (LoU) Inventory measures how easily individuals are using the innovation; and (3) Innovation Configuration (IC) measures what the innovation looks like and how faithfully it is being used when compared to its original design. Collectively, these tools can help planners apply appropriate and timely interventions to help users in the change process. Since change takes between 3-5 years to implement, it should not be surprising that many impact studies show no significant difference if conducted during the first two years of implementation. The key point here is that these studies were likely conducted prematurely instead of indicating the failure of an innovation. This has generally held true in technology adoption studies and should come as no surprise to anyone in this forum. Since technology integration is a complex innovation bundle, its successful adoption requires both a time-consuming and resource-intensive process.

Change Principle 2: There are significant differences in what is entailed in development and implementation of an innovation.

- Discussion: Development addresses the issues involved in adopting the innovation at its respective sites. Implementation addresses the steps and actions around learning to use the innovation. The typical pattern is to invest heavily in
terms of people, time, and resources on the development side and to ignore the fact that implementation requires equal investment of resources.

• **Implications:** This principle stems from the fact that change is a process and suggests that implementation work isn’t as glamorous or as short-term as development work. Change facilitators involved in implementation must have the patience to work daily with teachers who are trying to integrate technology into curriculum and instruction. Without this level of sustained involvement after rollout, successful technology integration is unlikely. In other words, different personality traits are needed for the development and implementation phases of the change process.

**Change Principle 3:** *An organization does not change until individuals within it change.*

• **Discussion:** An organization does not change until each individual within it changes. Rogers (1995) has classified how rapidly people adopt (or fail to adopt) change and it is the laggards (those who are most reluctant and slowest to adopt) who pose the greatest barrier to the adoption and use of an innovation. Within the organizational context of schools, teachers and principals have been identified as the two critical groups necessary for the successful adoption of an innovation.

• **Implications:** Leaders of organizational change processes need to devise and anticipate ways to facilitate change at the individual level, especially with principals and teachers. For example, how can change facilitators help principals and teachers articulate and implement a compelling shared vision of teaching, learning, and technology? What organizational incentives are in place to reward teachers who try to integrate technology? This also raises an interesting related question about what to do with those who will simply not adopt the innovation, regardless of interventions used.

**Change Principle 4:** *Innovations come in different sizes.*

• **Discussion:** Innovations can be products, e.g., computers, or processes, e.g., constructivist teaching, or both. Depending on the innovation, change processes can require more time and resource consumption. In the case of technology integration both products (technology) and processes (content and pedagogy) are involved; hence it is reasonable to expect the related change processes to be both time- and resource-intensive.

• **Implications:** Change initiatives are not typically focused on a single innovation, but rather a bundle of innovations. This is where ICs are quite useful to help school leaders articulate what the innovation should look like. For example, a critical question that school leaders must ask is this: What will technology integration look like and how will we know if it is successful? Very few planners/facilitators take the time to operationally define what the innovation bundle should ultimately look like prior to its implementation. Until schools do this, however, measuring the success of technology integration will be virtually impossible. ICs can also help change facilitators plan for and deliver timely interventions to ensure the innovation bundle’s successful and faithful use. For
example, how important is it that teachers remain faithful to the original articulation of technology integration? What organizational rewards and sanctions are available to encourage IC fidelity and/or discourage infidelity (if that is a priority)? Moreover, large-scale innovations (like technology integration) that require major changes in the roles of teachers, principals, and schools, take 5-8 years to implement, and demand specialized training and ongoing consultation. What will that look like? Who is responsible for developing and delivering these long-term interventions? How do we know these interventions are working?

**Change Principle 5:** *Interventions are the actions and events that are key to the success of the change process.*

- **Discussion:** Research indicates that teachers are more successful with change in schools where there are more one-legged interviews. One-legged interviews refer to brief interventions, usually between principals and teachers, which occur in an informal manner. Furthermore, the most important interventions are the little ones, which most leaders forget to do or forget having done.

- **Implications:** Related to the principle that change is a process and not an event, this principle suggests that change facilitators need to focus on the process of intervening to move the adoption of the innovation along. For example, principals need to regularly ask teachers what problems/successes they are having with technology integration and be ready to deliver needed resources to teachers when they discover a need. This critical information can be obtained in one-legged interviews and the good news is that this kind of intervention does not have to be time consuming or resource intensive. The point here is that teachers need to know that change facilitators/building leaders have not abandoned them and/or left them to their own devices after the initial rollout of the innovation.

**Change Principle 6:** *Although both top-down and bottom-up change can work, a horizontal perspective is best.*

- **Discussion:** Despite the abysmal track record of top-down change initiatives, this continues to be the preferred mode of implementation. Bottom-up change initiatives have not worked well either, mainly because: (1) the top rarely relinquishes control in the areas that are most important; (2) the bottom has neither the ideas or the time to initiate change; and/or (3) the top does not support the efforts of the bottom.

- **Implications:** For change to succeed a major shift in thinking is needed by all participants and this, in part, requires trust. However trust is a key to systemic change that appears to be in short supply. The challenge for leaders and change facilitators is to engender trust in the process of initiating change. This can be facilitated by helping people at all points come to understand the whole system and by helping people to *focus on doing their own jobs well.* For example, what systemic resources does technology integration require and who is responsible for delivering these resources? What does effective use look like and how is it measured? Once measured, for what purposes will this information be used and

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by whom? Answering these questions can provide individuals with knowledge and tools to help them develop mutual trust as technology integration unfolds.

**Change Principle 7:** *Administrator leadership is essential to long-term change success.*

- **Discussion:** A central theme of advocates for bottom-up change is that those nearest the action have the best ideas of how to accomplish change. However, research and experience argue a different conclusion. While the bottom may be able to launch and sustain an innovative effort for several years, if administrators do not engage in ongoing active support, it is more likely that the change effort will fail.

- **Implications:** While teachers can create and implement new practices, administrators have to secure the necessary infrastructure changes (e.g., finding time to help teachers adopt and integrate technology) and long-term resource support if use of an innovation is to continue indefinitely (e.g., what strategies will schools develop to replace outdated equipment with current technology and keep abreast of the latest developments in technology and cognitive science? Who is responsible for this?). Moreover, policy-makers need to design policies that legitimize the infrastructure changes and innovations and encourage its continued use.

**Change Principle 8:** *Mandates can work.*

- **Discussion:** When a mandate is accompanied by continuing communication, ongoing professional development, on-site coaching, and time to implement, the mandate can operate quite well.

- **Implications:** Mandates that are issued without embedded ongoing support and interventions are likely to fail; yet that appears to be the standard way of doing business. Policy-makers and school leaders must be cognizant of this fact and embed appropriate ongoing support to ensure the long-term success of the mandate. For example, placing hardware and software in classrooms and then mandating technology integration without accompanying ongoing resources, interventions, and professional development will likely fail.

**Change Principle 9:** *The school is the primary unit for change.*

- **Discussion:** Stemming from the principles above, the school building must be the primary unit of analysis; hence intervention strategies must be aimed at buildings rather than the district or classroom levels.

- **Implications:** This principle does not suggest that external help and support is inappropriate. To the contrary, external change facilitators, as well as supports from other parts of the system, are necessary. What the principle does suggest, however, is that planners should focus on implementing technology integration at the building level. Successfully doing so will by *de facto* ensure its successful implementation at the district level.

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Change Principle 10: *Facilitating change is a team effort.*

- **Discussion:** While strong administrative leadership is critical to successful change efforts, this must manifest itself inside the context of collaborative team building. Teachers, for example, play a critical leadership role in whether change is successful.

- **Implications:** If schools are serious about technology integration, they cannot afford to delegate this responsibility primarily to a district “tech guru.” Instead, successful technology integration depends on the extent school leaders – both administrators and teachers – are included in the planning and facilitating of its adoption and use.

Change Principle 11: *Appropriate interventions reduce the challenges of change.*

- **Discussion:** If the change process is well facilitated, change can be fun and it does not have to hurt and be dreaded.

- **Implications:** OK. You can stop laughing now. 😊 As discussed above, leaders and change facilitators would be well-served if they take into account these principles of change and use a combination of the CBAM tools, e.g., SoCQ, LoU, and/or IC, to help them measure and evaluate technology integration as it unfolds.

Change Principle 12: *The context of the school influences the process of change.*

- **Discussion:** There are two important dimensions that affect individual and organizational change efforts: (1) **physical features**, such as size and arrangement of the facility, as well as the resources, policies, structures, and schedules that shape the staff’s work; and (2) **people factors**, that include the attitudes, beliefs, and values of the individuals involved as well as the relationships and norms that guide the individual’s behavior. Successful organizations create time and opportunities for the staff to collectively **reflect** on its work with students and **assess** its influence on student results. This suggests a critical need for **action research** to provide educators with empirical data they need to move the work along. Moreover, this **community of practice** demands a sharing principal who works participatively with teachers to help accomplish their shared vision and goals.

- **Implications:** Apple Classroom of Tomorrow (ACOT) research (1997) indicates that a change in beliefs must precede a change in teaching behavior, i.e., teachers must first change their beliefs about teaching and learning before they are ready to **effectively** integrate technology into their classes. Given the above discussion, it becomes critical for building leaders and change facilitators to work collaboratively with faculty to build a shared vision about teaching, learning, and technology. Once developed, these beliefs about teaching, learning, and technology must be operationally defined to provide a clear picture of what they will look like when manifested in the classrooms of a district’s school buildings.

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