The Concerns-Based Adoption Model and Strategic Plan Evaluation: Multiple Methodologies to Understand Complex Change

Kate Olson, Katie Lannan, John Cumming, Heather MacGillivary & Kevin Richards

Jeffco Public Schools

Abstract: Many school districts utilize a strategic plan to implement their district vision to accomplish goals important to their students, stakeholders, and community at-large. Often, however, school districts use student outcome data as the main success indicator of their strategic plan. This summative approach fails to capture interim successes, cannot inform ongoing implementation and midcourse corrections, and fails to identify the nuances and challenges inherent in complex change processes. This paper uses the Concerns-Based Adoption Model, collecting survey and qualitative interview data, to inform the implementation of a school district's strategic plan. The Concerns-Based Adoption Model offers multiple methods to inform ongoing implementation instead of sole reliance on student outcome, culture, or climate data.

Key Words: Concerns-Based Adoption Model, Strategic Plan Evaluation

Many school districts utilize a strategic plan to implement their district vision to accomplish goals important to their students, stakeholders, and community at-large. Often, however, school districts use student outcome data as the main success indicator of their strategic plan. This summative approach fails to capture interim successes, cannot inform ongoing implementation and midcourse corrections, and fails to identify the nuances and challenges inherent in complex change processes. This can be particularly problematic when evaluating something as difficult to measure as increased deeper learning, as is the focus of this study.

This study utilized the Concerns-Based Adoption Model (CBAM) to evaluate the strategic plan implementation in a suburban school district located in the Rocky Mountain region of the United States. The strategic plan was launched during the 2017-2018 school year with the goal to increase students' opportunities for deeper learning via student agency, high expectations, and authentic learning in the classroom. The district's internal research team was tasked with evaluating the ongoing system level changes associated with implementing deeper learning and providing continuous improvement feedback to stakeholders engaged in the work. The research team selected CBAM as their method of inquiry because the multiple methods present within the model promised a more complete picture of implementation. CBAM includes quantitative survey data, providing a broad picture of educator's beliefs and attitudes that could be explored deeply in

Correspondence concerning this article should be addressed to Kate Olson, E-mail: kate.olson@jeffco.k12.co.us

qualitative interviews focused on behavioral changes. Combining these approaches, the research team was able to develop a comprehensive understanding of a complex change process in order to provide actionable, data-driven feedback.

In this paper, we start with a brief overview of literature around strategic plan evaluation. We then detail our framework using the Concerns-Based Adoption Model (CBAM; Hall & Hord, 2020) and explain the methods used for this study. Next, we share an overview of the results that were used to provide feedback and recommendations to stakeholders. To conclude, we discuss how using the multiple methods within CBAM aided our understanding of how the strategic plan was being implemented and the complex change process taking place in our school district. The significance of this study also contributes to the literature on school district strategic plan implementation evaluation and the use of the multiple methods within the Concerns-Based Adoption Model to examine strategic plan implementation, specifically during the ongoing implementation process.

LITERATURE

Strategic planning and strategic management are not new concepts; however, the literature on strategic plan implementation or evaluating strategic plans in K-12 school districts is sparse. Studies have been conducted measuring firm performance in banks (Hahn & Powers, 2010) or key performance indicators (KPIs) to quantify elements of a strategic plan in higher education (Rowley & Sherman, 2002), but do not indicate methods to inform the ongoing implementation of the goals of the plan. Research on public sector strategic plan evaluations exist (for example, Elbanna, et al., 2016; Poister, et al., 2010; Mastop & Faludi, 1997), however, do not necessarily translate to educational settings.

Many school districts utilize strategic plans to guide their work. The measures identified by some districts that are publicly available on their websites often focus on student outcomes and school culture and climate data (see, for example, Leon County School District in Florida; Cherokee County School District in Georgia; and Seattle Public Schools in Washington, among many others). These data points can obfuscate the possibility to identify interim successes and inform the ongoing implementation of the goals identified in the strategic plan. This paper attempts to fill a void in the literature by examining the use of the Concerns-Based Adoption Model as one way to evaluate the ongoing implementation of a school district's strategic plan. This paper discusses the multiple methods used in the CBAM process and highlights how CBAM could be used in school districts wishing to inform ongoing implementation instead of sole reliance on student outcome, culture, or climate data.

FRAMEWORK

The Concerns-Based Adoption Model (CBAM) provided the framework for this study. CBAM has been used in educational settings for more than 40 years to better understand educator's concerns, behaviors, and variations of use throughout the implementation of an educational innovation (Hall & Hord, 2020). CBAM originated following the work of Frances Fuller on the concerns of teachers (Fuller, 1969). This concerns-based approach includes three diagnostic, judgement-free components, the *Stages of Concern* (SoC) survey; *Levels of Use* (LoU) interviews; and *Innovation Configuration Maps* (ICM). Through 35 survey items, the SoC survey identifies individual attitudes and beliefs of change agents and how they align with the innovation (Hall, et

al., 1991; George, et al., 2013). The LoU interview identifies individual behaviors and actions of change agents involved in an innovation and categorizes behavior changes into variations of use and non-use (Hall, et al., 1975; Hall & Loucks, 1977; Hall, Dirksen, et al., 2013). ICMs clearly define the innovation, including the varying stages of implementation and the components included within each stage (Hord, et al., 2013). These three components offer evidence of implementation related to an innovation and include data to drive actions (Hall & Hord, 2020). In this study, we used SoC surveys and LoU interviews, but did not utilize the ICMs with our stakeholders due to time limitations.

Hall and Hord (2020) often use an 'implementation bridge' metaphor when discussing the implementation of something new. Change is a process that takes time; the bridge metaphor offers a visual representation of how that change works in practice. Both the Stages of Concern and the Levels of Use can be visualized using the implementation bridge metaphor (see Figure 1 and Figure 2).

STAGES OF CONCERN SURVEY

The Stages of Concern survey contains 35 items related to varying concerns an individual may have when implementing something new. Data from the SoC survey include four categories of concern: Unrelated concerns; Self concerns; Task concerns; and Impact concerns. Figure 1 displays the categories of concern (top row) and below, the Stages of Concern aligned with their overarching category. Figure 1 also includes possible expressions a person may have within each stage.
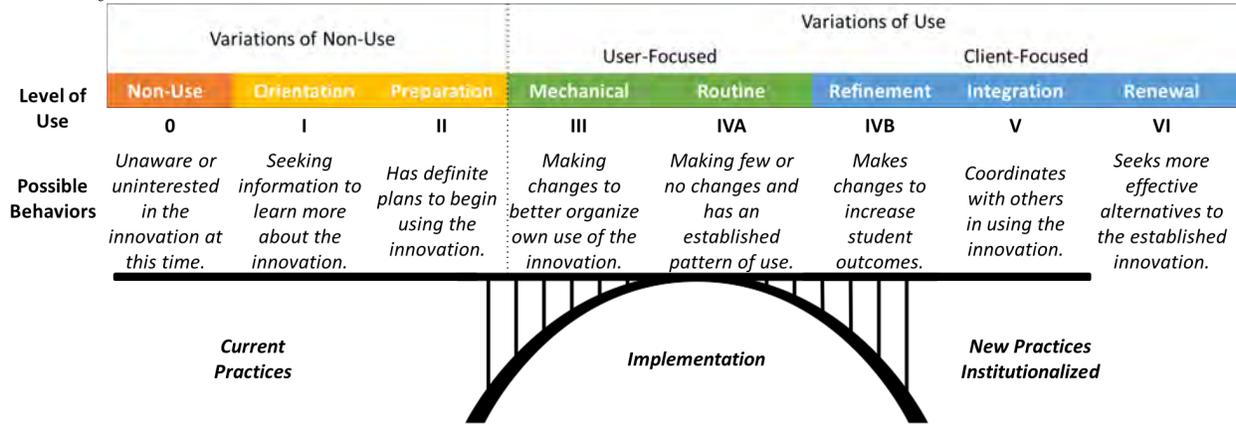
Figure 1
Stages of Concern
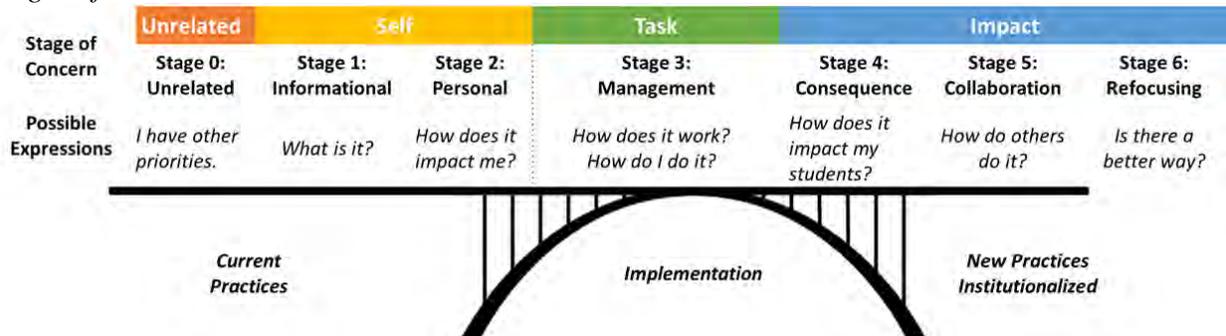
Source: Adapted from Hall & Hord, 2020, p. 107

LEVELS OF USE INTERVIEWS

Interviewers conducting a Levels of Use (LoU) interview follow a scripted guide and use decision points to identify behaviors related to a continuum of use and non-use. See Figure 2 for examples of behaviors for each level of use.

Figure 2
Levels of Use

	Variations of Non-Use			Variations of Use				
				User-Focused			Client-Focused	
Level of Use	Non-Use	Orientation	Preparation	Mechanical	Routine	Refinement	Integration	Renewal
	0	I	II	III	IVA	IVB	V	VI
Possible Behaviors	*Unaware or uninterested in the innovation at this time.*	*Seeking information to learn more about the innovation.*	*Has definite plans to begin using the innovation.*	*Making changes to better organize own use of the innovation.*	*Making few or no changes and has an established pattern of use.*	*Makes changes to increase student outcomes.*	*Coordinates with others in using the innovation.*	*Seeks more effective alternatives to the established innovation.*

Current Practices   **Implementation**   **New Practices Institutionalized**

Source: Adapted from Hall & Hord, 2020, p. 137

CHANGE SCIENCE

While there are varying approaches to change science or continuous improvement (see, for example, Bryk, et al., 2015; Fullan 2001, 2006), we used the Concerns-Based Adoption Model as our framework because of its use in educational settings in a variety of contexts and its strong base in change science. CBAM has been used in Texas to better understand how teachers adopted a character education program that was implemented district-wide, helping the advisory committee develop strategies to support increased implementation (Hollingshead, 2009). CBAM has also been used to study professional development for teachers in vocational programs in Australia and New Zealand (Saunders, 2012; Haines, 2018) and in Lesotho to study professional development related to a science curriculum change (Khoboli & O'Toole, 2012). In China, CBAM was used in a case study approach to evaluate a new English language curriculum (Wang, 2014). In addition, the founders of the CBAM model have been engaged with field research related to change science since its inception in the 1970s (see, for example, Hall, et al., 1975; Hall & Loucks, 1977; Hall, Negroni, et al., 2013; Hall, 2013; Hall & Hord 2020).

CBAM is grounded in change science. The key change principles inherent in CBAM and relevant to this study include that change is personal, it takes time, it is a process instead of an event, and change takes a whole system effort (Hall & Hord, 2020). Hall and Hord also identified interventions that, when used within a context supportive of change, facilitate the desired change to take place (Hall & Hord, 2020, p. 42-50). Taken together, the change principles and change interventions operate to facilitate successful and sustainable change. These change principles and change functions became embedded within our CBAM framework as we engaged in our research process.

METHODOLOGY

Data was collected in two phases during the 2018-2019 school year. Phase I (fall, 2018) included district leadership and school-based leaders (353 Stages of Concern (SoC) survey responses and 28 Levels of Use (LoU) interviews) and Phase II (spring, 2019) included four schools identified as leaders in implementing deeper learning experiences (125 SoC survey responses (school-level staff and leaders) and 98 LoU interviews). Phase I of our strategic plan

implementation study included solely the survey and interviews. The school-level Phase II, however, included four steps: (1) a meeting with the school's Instructional Leadership Team (ILT) to define deeper learning in their school; (2) a staff meeting to share this school-based definition and for staff to take the SoC survey; (3) interviews with instructional staff and building leaders to assess Levels of Use; and (4) a meeting to share findings and generate action plans with either the ILT or all staff.

The two phases of our study utilized different approaches to recruiting participants. Phase I focused on leadership. All district leaders, employees in the central district office, and school-based leaders were emailed the SoC survey and the research team conducted LoU interviews with district-level leaders who were directly responsible for implementing components of the strategic plan. In Phase II, district leaders involved in supporting deeper learning co-constructed four criteria with the research team to identify schools further along in implementing deeper learning experiences. These criteria included:

a) Engagement in Project-Based Learning (PBL) activities;
b) Sharing activities related to deeper learning on a district platform;
c) Engagement with the district curriculum and instruction team to incorporate deeper learning practices; and
d) Staff participation on committees related to implementing the strategic plan.

From this information, the research team created a list of seven schools meeting three or more of these criteria. Four schools opted to participate in this study. Both phases of the study included deep analysis of the SoC survey results and LoU interviews, as well as member-checking with participants to confirm and reflect on the findings. The research team used R statistical software to group Stages of Concern by calculating raw scores, converting to percentiles, and developing sample-level composite patterns, with confidence intervals indicating variance within each stage of concern. The percentiled Stages of Concern of participants and the mean of the sample were displayed using an R Shiny application. For qualitative analysis of the LoU interviews, Dedoose software was used to analyze transcribed interviews. Members of the research team conducted a thematic analysis and calibrated their independent coding to create strong inter-rater reliability. Inductively developed themes focused on behaviors associated with deeper learning opportunities and cultivated a more nuanced understanding of concerns identified in the SoC survey. These multiple approaches allowed the research team to offer specific feedback to schools and leaders about where participants were within the change process and to provide recommendations for ongoing implementation.

Leader-level member-checking sessions helped the research team refine the Phase I final report and assisted the team in their transition to working with schools. Findings also resonated with participants during school feedback sessions and has helped frame ongoing work and support for schools and district leaders. The Phase I findings indicated the district was in early stages of supporting the implementation of deeper learning. Phase II findings indicated similarly that schools who were identified as 'early implementers' or seemed to be further along with implementing deeper learning experiences were also in early stages of an implementation cycle (George, et al., 2013). While the Phase II findings were contextually specific to these schools, the lessons learned in the CBAM process about educator concerns and behaviors would be applicable for any school implementing change.

MULTIPLE METHODOLOGIES TO UNDERSTAND COMPLEX CHANGE

Implementing the vision of a new strategic plan is a complex task, engages a whole system, and enacts a system level change. Utilizing a research approach solely focused on quantitative student test data washes out the possibility to address affective and behavioral engagement of educators trying to implement the changes. Similarly, solely implementing a survey asking educators to identify their feelings and actions related to the changes taking place inhibits the ability to include school context and a school-based definition of the change. In our situation, each school defined how they entered into the deeper learning focus of the strategic plan. This school-based definition of deeper learning guided the CBAM process at each individual school. It was important, as an internal research team, to facilitate a definition with the school leadership team and not bring a definition to the school. When our research team introduced and conducted the Stages of Concern survey with educators at the school, we reiterated the definition from the leadership team and asked educators to focus on that definition when taking the survey. Similarly, interviewers had a half-sheet of paper with the school's definition written out for interviewees to refer to during Levels of Use interviews.

A large challenge experienced by educators at all schools was feeling overwhelmed and uncertain about how to create deeper learning experiences. These feelings were evident in the SoC (high numbers of Unrelated and Self concerns) and in the LoU (many people in Mechanical use). While we may have come to these conclusions with the survey or interview alone, the information present in both tools allowed us to create a richer understanding of what was happening at each individual school. We constructed feedback and recommendations based on the SoC: many educators having high unrelated concerns (they had other priorities) and many educators having high personal concerns (they wanted more information and needed a clearer understanding of how implementing the vision of the strategic plan would impact them personally). We were also able to contextualize this feedback through quotes and school specific information we collected from the interviews and meetings with leadership teams. Solely analyzing survey results using the recommended wave profile interpretation (see Figure 3; George, et al., 2013; Hall & Hord, 2020) would have excluded the insights on deeper learning we gathered from the qualitative interview analysis. The schools in our study had similar school-level wave patterns (see the black line with gold confidence interval in Figure 3) indicating early stages of implementation (George, et al., 2013; Hall & Hord, 2020). Showing the school's leadership team the wide range of educator concerns within their school (the light colored blue and red lines in Figure 3) facilitated deeper conversation about the variety of concerns in the building.

Figure 3

Sample Stages of Concern Survey Results using Wave Profile Method
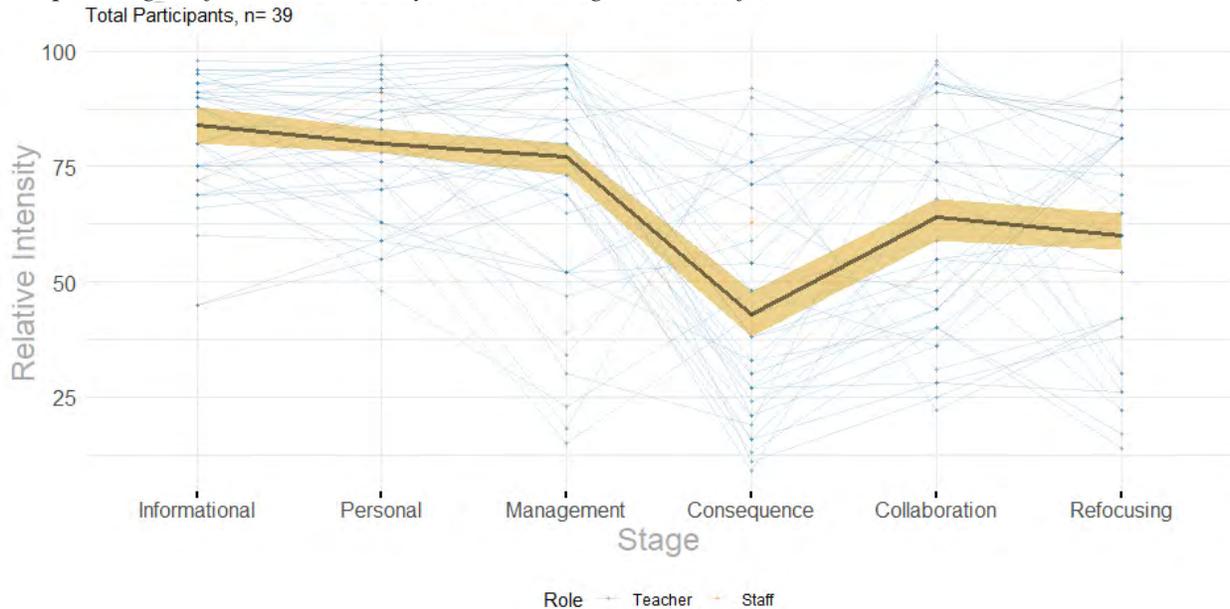
Using data from the LoU interviews coupled with educators' concerns from the SoC provided more in-depth information for leadership teams. During our feedback sessions, we facilitated dialogue around the themes from the interviews that may be helping or holding educators back from successfully implementing the strategic plan vision of deeper learning. By utilizing both the results from the SoC survey and the LoU interviews, we could identify aspects of implementation that may be missing.

Figure 4

Results from Phase II: SoC Survey Results and Levels of Use of Educators
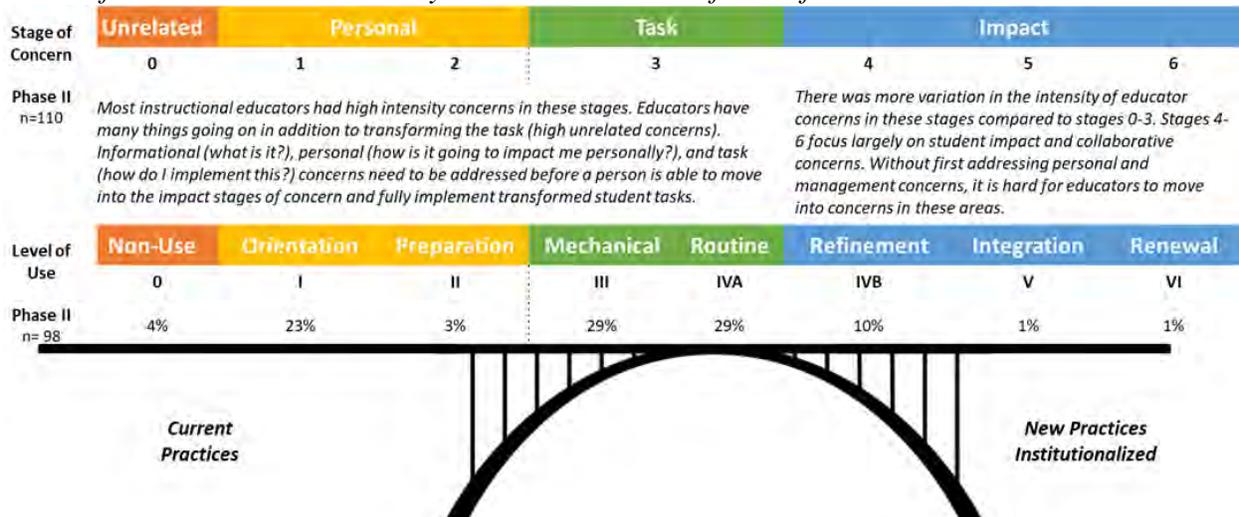
In addition, a display such as Figure 4, allowed us to contextualize feedback including both SoC survey results and LoU scoring in one place. Figure 4 displays feedback for both the SoC survey results at the top and the percentage of educators falling into the different Levels of Use directly above the implementation bridge. We noticed that many educators were in a Mechanical

or Routine Level of Use. From our interview analysis, we identified that the Preparation Level of Use could potentially use more emphasis. Given the context we had from the survey data, school meetings, and educator interviews, we identified that many educators were "doing without knowing". We defined "doing without knowing" to mean educators were interested and engaged with the district vision, but did not necessarily have enough information or preparation to successfully implement the three aspects (student agency, high expectations, and authentic learning) of the deeper learning work. Without these multiple data points, we may not have been able to identify and enter into this type of deeper dialogue with our participating schools.

DISCUSSION

Measuring the implementation of a complex process in the context of a complex system necessitates a rich set of data to facilitate meaningful action. Using CBAM to study a strategic plan's implementation process can help generate timely feedback and data-driven recommendations for continuous improvement and support. This continuous improvement approach is not without limitations. As an internal research team, we used an adaptive integration approach in our work with schools to adapt our process as needed to support the continuous improvement lens. In addition to rating the Levels of Use interviews, we qualitatively analyzed the interviews because of their valuable insights related to deeper learning. We wanted this additional information to help discuss the school-level data and deliver feedback to fit their context in a meaningful and actionable way. Another limitation that some research teams may face engaging in the CBAM process is the amount of work necessary for quality results. Our 10-person research team had three members dedicating a majority of their time to the CBAM work, but when conducting interviews, all team-members took part in the work. Another consideration when using the Concerns-Based Adoption Model is how to display results. We were fortunate to be engaged in a learning network (consisting of local school districts, a local university, and Gene Hall) throughout this project; as such, this collaboration enabled us to make purposeful adaptations to the CBAM process (such as Figure 4) that may not have been used in previous studies. Starting with the suggestions for displaying SoC or LoU results from the respective manuals (Hall, et al., 1975; Hall, et al., 1991; George, et al., 2013; Hall, Dirksen, et al., 2013) we adapted the displays to generate context-specific and actionable recommendations at the school level, resulting in displays that would portray the findings in a meaningful way to our stakeholders. While the specific school-level findings are not generalizable to other schools, the CBAM process we used to conduct the analysis is useful and generalizable to analyze innovations implementing a change such as the implementation of a strategic plan.

There are no current studies, that we are aware, utilizing the CBAM method in this way or that use multiple methods to progress monitor a strategic plan. Using concerns-based and change system evaluation techniques that utilize both qualitative (LoU interviews) and quantitative (SoC survey) methods can add value for practitioners and researchers tasked with such an evaluation. While this school district is in the early stages of implementation and is consequently challenged by competing priorities, the CBAM model, utilizing multiple methods, can offer insights for district and school level leaders to work towards changes envisioned in a new strategic plan.

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