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Appreciative Inquiry: A Path to Change in Education

Pamela L. Buchanan
California State University - San Bernardino, pamelalynnbuchanan@gmail.com

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Abstract
Appreciative Inquiry (AI) introduces a new approach to educational change. Most state and federal initiatives for educational change grow out of a deficit model determined to fix problems. The emphasis of AI is upon what is right with the organization and forms the basis for new initiatives and further change. This model proposes a cycle of inquiry used by leaders who distribute leadership across their constituents. Organizational learning is a process of individual and collective inquiry that modifies or constructs organizational theories-in-use and changes practice.

The study explored the relationship of AI, distributed leadership, and organizational learning qualities that exist within the participating districts in combination with participants' preparedness for CCSS implementation. To explore the relationships, a survey was created based on four already existing instruments. A model was proposed and path analysis was conducted. Inventories of appreciative capacities and principles, distributed leadership, and organizational learning capabilities in an educational system provided insight into the applicability of using AI as a process for implementation of the CCSS and future educational reforms. Throughout the analysis significant correlations existed and the model held. Utilizing appreciative inquiry, distributed leadership, and organizational leadership singularly or in combination within districts would strengthen CCSS implementation.

Keywords
appreciative inquiry, distributed leadership, organizational learning, Common Core State Standards, leadership, reform

Author Statement
I have worked in education for 20 years; thirteen years as a classroom teacher and the past 6 as an administrator in the district office. I am the Director of Assessment & Accountability in the Snowline JUSD. I recently earned my Doctorate in Educational Leadership from California State University, San Bernardino.

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Problem of Practice

Reform is not new in education. Since the time of Horace Mann, attempts have been made to address social and educational problems. Table 1: *Timeline of Education Reforms—Past and Present*, highlights six of the more notable attempts to improve public education. Currently the Common Core State Standards (CCSS) are being implemented. Large scale implementation of the CCSS began with the 2014-2015 school year. These standards require teaching practices to change to better prepare all students for college, career, and the 21st century.

Past reform efforts relied on top-down leadership structures and focused on perceived failures in schools. As a person in "middle management", who is often tasked with being a change agent in translating the big picture into a change in practice, a study grounded in a major educational reform initiative offered a challenging "problem of practice".

Table 1

Timeline of Educational Reforms—Past and Present

Year	Reform
1840s	Horace Mann—Social & Educational Problems
1957	Sputnik—Russians Entered Space
1960	Lyndon B. Johnson—War on Poverty (Title 1)
1983	"A Nation at Risk"—Faulty Schooling
2002	No Child Left Behind—"Achievement Gap"
2014	Common Core State Standards—College & Career Readiness for All Students

(Bracey, 2007; Tyack & Cuban, 1995; Porter, McMaken, Hwang, & Yang, 2011)

Most reform efforts ignore the positive core of an existing system. They attempt to force change onto people, instead of involving individuals in positive and constructive ways of change implementation. Change efforts in the past have assumed a deficit model (There is something wrong with the system. This reform will fix it.). Appreciative Inquiry has the potential to engage educators in creating a positive future to transform classroom practices by building on current strengths and effective practices. To date the potential of AI for implementing educational reform has not been empirically tested.

Theoretical/Conceptual Underpinnings

The first theoretical underpinning, **"**Appreciative Inquiry" (AI), was conceived by Cooperrider (1990).

Cooperrider interviewed teams using two different approaches: one approach was to ask a team what is wrong with the organization; while the second approach was to ask a team what was working in the organization (Martinez, 2002, p. 34). Cooperrider discovered the language used had a profound effect on the outcomes. Even though the two groups were providing feedback on the same organization, the interview results differed. Cooperrider concluded, "the act itself of asking positive questions affected the organization positively; asking negative questions affected the organization negatively" (Martinez, 2002, p. 35). In other words, language frames thinking and perspective. This early research was the foundation for the AI model. My research builds on this model.

To understand the philosophic underpinnings of AI, it is important to have a shared understanding of what AI means as defined by Cooperrider. The first word in root form, appreciate, is "valuing; recognizing the best in people and in organizations" (Cooperrider & Whitney, 2005, p. 7). The second word, inquiry, means "the act of discovery, exploration, examination, looking at, investigation, and study" (Cooperrider & Whitney, 2005, p. 7). Thus, AI is a thorough investigation of what works in an organization and uses the organizations' strengths as the impetus for continued growth.

The second theoretical underpinning, distributed leadership, is defined as "the distribution of leadership functions among the leadership team, which is a group of people with formal leadership roles" and can also "be distributed among all members in the school" (Hulpia & Devos, 2010, p. 566). Important characteristics of distributed leadership include participative decision-making, social interaction, and cooperation of leadership teams. Distributed leadership emerged with the purpose of replacing leadership as a singular "heroic" role (Copland, 2003; Gronn, 2008; Hulpia & Devos, 2010; Hupia, Devos, & Rosseel, 2009; Mayrowetz, 2008; Timperley, 2005). Past educational reforms were reliant on "heroic" leadership styles.

A third theoretical underpinning, organizational learning, is a process of individual and collective inquiry that modifies or constructs organizational theories-in-use and changes practice (Collinson, Cook, & Conley, 2006, p. 109). Past reform efforts have focused on a quick fix attempt to change educational practice. However, "Organizational learning is a long-term continuous investment—a way of thinking and doing-that takes time" (Collinson, Cook, & Conley, 2006, p. 114).

The final conceptual underpinning, the Common Core State Standards (CCSS), represent a national reform with the potential to better prepare all students for college, career, and the 21st century (CommomCore.org). In fact, "The Common Core State Standards … represent one of the most sweeping reforms in the history of American education," (Vecellio, 2013, p. 222). However, the CCSS cannot merely be swapped with the current standards; instructional practice has to change.

Research Question

To contribute a quantitative study to the AI literature, the following research question was explored: What are the relationships between educators' appreciative capacity, distributed leadership, organizational learning, and preparedness to implement a state mandated curricular reform, like the CCSS?

Methodology

Instrument

A survey was created based on four existing instruments to assess educators' preparedness to implement CCSS reform and to explore relationships of AI, distributed leadership, and organizational learning. The survey consisted of 87 items and asked participants to respond using a Likert scale of strongly agree, agree, neutral, disagree, and strongly disagree and took about 20 minutes to complete. Educators from five participating school districts in the California High Desert were invited to participate.

The survey assessed the organizations' beliefs in the face of change and the AI principles. The four instruments integrate principles of AI, organizational learning, distributed leadership, and CCSS. Using shortened forms of the original instruments to create a new instrument provides an opportunity to study the participants' preparedness to implement the CCSS:

- Distributed Leadership Inventory (Hupia, Devos, & Rosseel, 2009)
- Appreciative Capacities Inventory (Innovation Partners International)
- Organizational Learning Capability (Chiva, Alegre, & Lapiedra, 2007)
- National Survey of Teacher Perspectives on the Common Core (Editorial Projects in Education Research Center, 2013)

Data Screening

Prior to analysis, data were screened for missing data. The screening process revealed six participants had 18 or more missing data items. Their responses were removed from the analysis. An additional participant was missing both responses on a two item scale, thus they did not respond to any items on the scale and no response replacement could be done. Consequently, this participant was also removed from the analysis. As a result, the final N for this study was 214 participants.

Within the 214 remaining participants, a total of 74 random scale items were missed by 59 participants. Missing data were replaced by subscale with each participant's mean score on that subscale. The pre and post mean replacement descriptives are reported below in Table 2: *Pre and Post Mean Replacement Descriptives*. There was very little difference between the pre and post mean replacement descriptive statistics, indicating the mean replacement process did not alter or skew the data. The data were also recoded so higher scores represent more of the subscales and constructs.

Participants

During the one month window the survey was administered, 319 educators from the five High Desert unified school districts accessed the survey, and 221 educators participated by completing the questionnaire. The distribution of the respondents by district is displayed in Table 3: *Distribution of Participants by District*.

Approximately 2,389 educators within the five school districts were invited to participate in the survey. Approximately 10% of the total possible participants completed the survey. Table 4: *Possible Participants* displays by school district and the total number of participants who were invited to participate. The smallest district actually yielded the most participants with44% of the possible educators participating. Conversely, the second largest yielded the second fewest with a mere 2% of the possible educators participating. The response rates from three of the districts were fairly good.

Table 2

Pre and Post Mean Replacement Descriptives

	Subscale	N		Minimum		Maximum		Mean		Std. Deviation		Skewness		Kurtosis	
		Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Appreciative Inquiry	Appreciative Capacity Inventory	185	214	1.00	1.00	5.00	5.00	3.10	3.09	.47	.46	1.36	1.21	9.53	8.73
	Eight Principles of AI	204	214	1.00	.99	5.00	5.00	3.05	3.04	.48	.48	1.30	1.09	7.38	6.61
Distributed Leadership	Participative Decision Making	209	214	1.00	1.00	5.00	5.00	2.45	2.45	.98	.98	.53	.56	-.49	-.48
	Leadership Function	205	214	1.00	1.00	5.00	5.00	2.71	2.69	.90	.88	1.14	1.11	1.23	1.21
Organizational Learning	Experimentation	212	214	1.00	1.00	5.00	5.00	2.66	2.66	1.02	1.02	.80	.80	.17	.17
	Risk Taking	213	214	1.00	.75	5.00	5.00	2.43	2.44	.97	.97	.58	.58	-.04	-.04
	Dialogue	214	214	1.00	1.00	5.00	5.00	2.82	2.81	.90	.90	.89	.87	.71	.69
	CCSS Preparedness	210	214	1.00	1.00	5.00	5.00	2.19	2.18	.82	.82	.33	.34	-.21	-.21
		155	214												

Table 3

Distribution of Participants by District

District	Count	Percent
District A	13	5.88%
District B	8	3.92%
District C	79	36.90%
District D	59	27.60%
District E	55	25.70%
Total	214	

Table 4

Possible Participants

District	Number of Teachers	Number of Administrators	Total Possible
District A	592	40	632
District B	262	20	282
District C	915	77	992
District D	127	11	138
District E	316	29	345
Total	2,212	177	2,389

(CDE Ed. Data & Data Quest, 2012-2013 CBEDS)

Demographics

Of the 214 participants, 142 (66.40%) were female, and 71 (33.20%) were male; one participant did not indicate gender. The participants ranged in number of years of educational experience; however, the largest group of participants had more than 20 years of experience in education (37.40%, 15.9% had 15-20 years, 24.30% had 10-15 years; just over 20% had 10 years or less).

The majority of the participants were teachers. Of the 214 educator participants, 139 (65%) were teachers, 55 (26%) were administrators, and 20 (9%) were other. The other includes school psychologists, teachers on assignment, instructional coaches, and speech and language pathologists. The ratio of respondents was 12 teachers to 5 administrators.

Reliability Analyses

Reliability analyses revealed each subscale was reliable, with Cronbach's alpha ranging from .74 to .96. Cronbach's alphas coefficients are considered "satisfactory, all above 0.7 or close to this threshold" (Chiva et al, p. 234, 2007). See Table 5: *Subscale Reliability* for the subscale Cronbach's alphas.

Table 5

Subscale Reliability

Constructs	Subscale	# of Items	Cronbach's Alpha
Appreciative Inquiry	Appreciative Capacity Inventory	39	.96
	Eight Principles of AI	8	.72
Distributed Leadership	Participative Decision Making	6	.92
	Leadership Function	10	.94
Organizational Learning	Experimentation	2	.94
	Risk Taking	2	.85
	Dialogue	4	.85
CCSS Preparedness	CCSS Preparedness	6	.84

Intra-correlations

Intra-correlations of the subscales were analyzed within each construct (Appreciative Inquiry [AI], Distributed Leadership [DL], Organizational Learning [OL]). Within the AI construct, the Appreciative Inquiry Inventory subscale and the Eight Principles of AI subscale were correlated ($r = 0.65$, $p \leq 0.00$) indicating the two subscales were measuring a similar underlying construct; in this case believed to be AI.

Within the Distributed Leadership construct, the Participative Decision Making subscale and the Leadership Functions subscale were correlated ($r = 0.80$, $p \leq 0.00$) indicating the two subscales were measuring a similar underlying construct; in this case believed to be Distributed Leadership.

Within the Organizational Learning construct, the Experimentation subscale, Risk Taking subscale, and Dialogue subscale were correlated (see Table 6: *Intra-correlations Within the Organizational Learning Subscales*), indicating the three subscales were measuring a similar underlying construct; in this case believed to be Organizational Learning.

Table 6

Intra-correlations Within the Organizational Learning Subscales

	Organizational Learning	
	Risk Taking	Dialogue
Experimentation	.82*	.72*
Risk Taking	-	.73*

* Correlation is significant at the 0.01 level (2-tailed).

Table 7

Inter-correlations Amongst All Subscales

		Appreciative Capacities Inventory	Eight Principles of AI	Participative Decision Making	Leadership Function	Experi-mentation	Risk Taking	Dialogue	CCSS Preparedness
Appreciative Inquiry	Appreciative Capacities Inventory	-	.65*	.37*	.40*	.41*	.38*	.44*	.39*
	Eight Principles of AI	-	-	.29*	.28*	.34*	.31*	.36*	.29*
Distributive Leadership	Participative Decision Making	-	-	-	.80*	.72*	.70*	.73*	.43*
	Leadership Function	-	-	-	-	.74*	.69*	.71*	.40*
Organizational Learning	Experimentation	-	-	-	-	-	.82*	.72*	.36*
	Risk Taking	-	-	-	-	-	-	.73*	.39*
	Dialogue	-	-	-	-	-	-	-	.45*

* Correlation is significant at the 0.01 level (2-tailed).

Inter-correlations

Inter-correlations between all eight subscales are presented in Table 7: *Inter-correlations Amongst All Subscales*. The strongest correlations were noted across subscales in Distributed Leadership and Organizational Learning; the Eight Principles of AI subscale showed the

weakest correlations with the subscales from the other constructs.

Constructs of Interest Descriptives and Correlations

As the intra-correlations revealed the subscales for each construct were related, a decision was made to a construct composite from the associated subscales. The descriptives for the construct composites are displayed in Table 8:

Table 8

Constructs of Interest Descriptives

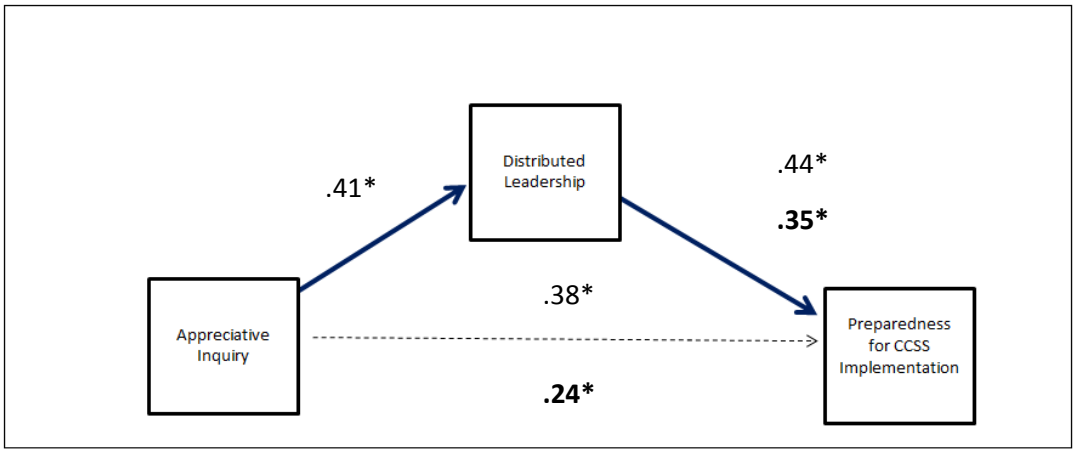
Construct	Minimum	Maximum	Mean Statistic	Std. Deviation	Skewness	Kurtosis
Appreciative Inquiry	1.00	5.00	3.06	.43	1.48	11.38
Distributed Leadership	1.00	5.00	2.57	.88	.82	.28
Organizational Learning	1.00	5.00	2.64	.88	.74	.24

Constructs of Interest Descriptives. The skew for the DL and OL constructs are within normal limits. The AI construct is slightly negatively skewed. The AI construct is leptokurtic (most of the scores clustered around the mean) most likely because there were many questions similar in nature and the participants had many common experiences.

The researcher wanted to ensure a particular role type (teacher, administrator, or other) was not skewing the data. Descriptives were run for each role and there was very little variance between the groups. Correlation matrices revealed that all correlations between the constructs of interest were significant.

Regression to Test Paths

Path Analysis using linear regression was used to analyze and test relationships between the constructs of interest. The first model tested to see if Distributed Leadership mediated the AI to CCSS Preparedness relationship (see Figure 1: *Model Test of Distributed Leadership Mediating the AI to CCSS Preparedness Relationships*). The standardized beta weights are reported so comparisons are easily done and construct metrics do not need to be adjusted. Table 9: *Distributed Leadership Mediating the AI to CCSS Preparedness Relationships Path Analyses* reports the model summary. Distributed Leadership partially mediated the AI to CCSS preparedness relationship.



*Notes: The numbers in regular font report the standardized coefficient beta weights for the direct paths. The bolded numbers report the standardized coefficient beta weights for the mediator relationship. * p* < 0.00.

Figure 1. Model Test of Distributed Leadership Mediating the AI to CCSS Preparedness Relationships.

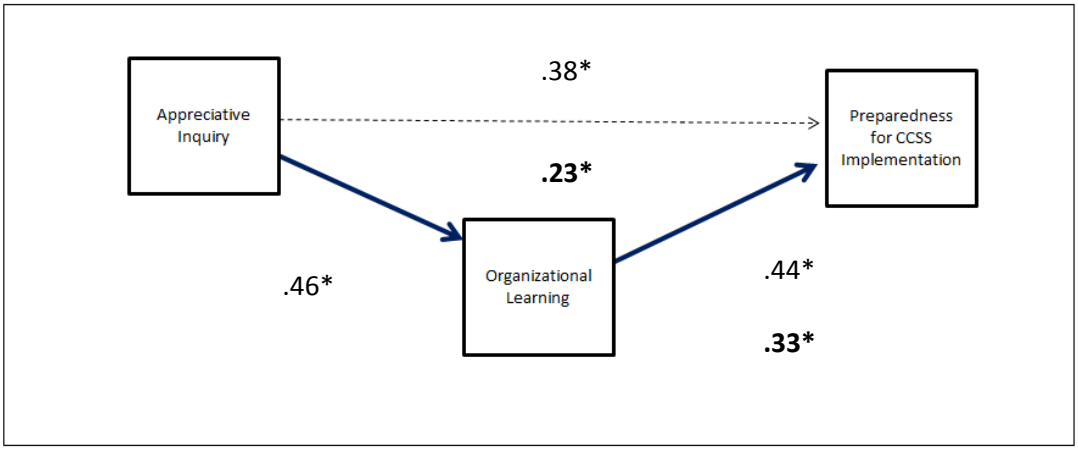
The second model tested if Organizational Learning mediated the AI to CCSS Preparedness relationship (see Figure 2: *Model Test of Organizational Learning Mediating the AI to CCSS Preparedness Relationships*). The standardized beta weights are reported so comparisons are easily done and construct metrics do not need to be adjusted. Table 10: *Organizational Learning Mediating the AI to CCSS Preparedness Relationships Path Analyses* reports the model summary. Organizational learning partially mediated the AI to CCSS Preparedness relationship.

Table 9

Distributed Leadership Mediating the Appreciative Inquiry to Common Core State Standards Preparedness Relationships Path Analyses

Path	*R*	*R* Square	Adjusted *R* Square	*p*	Standardized Coefficient Beta
AI to CCSS	.38	.14	.14	.000	.38
DL to CCSS	.44	.19	.19	.000	.44

Steps	Construct	*R*	*R* Square	Adjusted *R* Square	*p*	Standardized Coefficient Beta
1	Distributed Leadership	.44	.19	.19	.000	.44
2	Appreciative Inquiry	.49	.24	.24	.000	DL .35 AI .24



*Notes: The numbers in regular font report the standardized coefficient beta weights for the direct paths. The bolded numbers report the standardized coefficient beta weights for the mediator relationship. * p < 0.00.*

Figure 2. Model Test of Organizational Learning Mediating the AI to CCSS Preparedness Relationships.

Table 10

Organizational Learning Mediating the Appreciative Inquiry to Common Core State Standards Preparedness Relationships Path Analyses

Path	*R*	*R* Square	Adjusted *R* Square	*p*	Standardized Coefficient Beta
AI to CCSS	.38	.14	.14	.000	.38
OL to CCSS	.44	.19	.19	.000	.44

Steps	Construct	*R*	*R* Square	*p*	Standardized Coefficient Beta
1	Organizational Learning	.44	.19	.000	.44
2	Appreciative Inquiry	.48	.23	.001	OL .33 AI .23

The relationships were also tested using the subscales instead of the constructs; however, no meaningful differences were noted.

Path Analysis

A path analysis was conducted on the two models. Based on the above analyses that tested distributed leadership and organizational learning as mediators separately, not simultaneously, the model held. There is a significant relation between AI and CCSS preparedness. This relationship accounts for 38% of the variance. AI is mediated by distributed leadership in that distributed leadership accounts for a significant increase in the variance along the path from AI to CCSS

preparedness. A similar mediation occurs along the path from AI through organizational learning. This is reflected in the reported R squared terms (see tables 9 and 10). Each supports the model as proposed.

Summary of Key Findings

The CCSS reform has been set in motion. Regardless of how prepared educators feel, the expectation is teachers will be teaching CCSS. AI offers a way to build on the strengths which already exist in school districts to design the implementation. Thus, a model of AI as a change process would increase CCSS preparedness. AI in combination with distributed leadership and organizational learning may strengthen CCSS preparedness even more.

Engaging in Appreciative Inquiry offers a way to embrace change and design the change implementation around what is already successful in the educational organization. In other words, although the CCSS represents a huge shift, educators are not expected to flip a switch and negate all of their previous wisdom, experiences, and knowledge. However, educators may be unclear in how to bring their current wisdom, experiences, and knowledge forward.

AI offers a framework for embracing strengths as shown in Figure 3: 5-*D Model of Appreciative Inquiry*. A framework for applying AI to CCSS implementation should begin with appreciating current successes in the system in the discovery phase, envisioning the results in the dream phase, empowering all educators to create the capacity to transform educational practice in the design phase, and describing the transformation in the destiny phase. Using distributed leadership in implementing the AI framework allows for authentic engagement. The framework also embeds organizational learning for continued growth within the system.

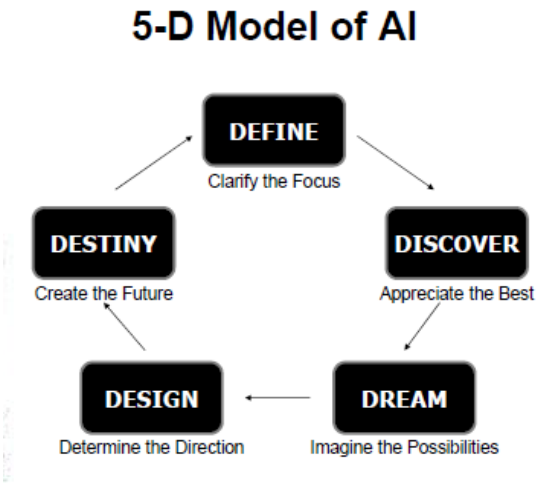


Figure 3. 5-D Model of Appreciative Inquiry (Tschannen-Moran, 2012). Tschannen-Moran, M. & Tschannen-Moran, B. (2011). Taking a strengths-based focus improves school culture. *Journal of School Leadership*, 21, 422-448.

The relationships between educators' appreciative capacity, distributed leadership, organizational learning and CCSS preparedness to implement a state mandated curricular reform were investigated. Participating educators reported these constructs were related. Distributed leadership and organizational

learning each partially mediated the AI to CCSS preparedness relationship.

Appreciative inquiry on its own is not enough. Distributed leadership and/or organizational learning are also necessary components to implement change. Getting people involved (AI) is not enough alone to effect successful change. The distributed leadership and/or organizational learning must be there to support and sustain change. Many change efforts fail even when people have a voice (AI) because the leadership fails to sustain the input from the people's voices distributed leadership and/or there is no process in place for the organization to learn and to continue to change (continuous improvement). Change, meaningful change, takes time. It cannot be accomplished or implemented in a "static" one-day workshop on the desired change and the expected new ways of doing things. Growth needs to be nurtured with continual inputs and feedbacks to monitor the change and adjust with new information (which is continually being gathered).

Impact on Practice

Generative Impact on Future Research

Although this study in part filled a gap in the literature by testing the constructs of appreciative inquiry, distributed leadership, and organizational learning, more work should be done. The most significant contribution of this study is the quantitative analysis of the constructs in general; specifically it addresses a gap in the appreciative inquiry literature. This study quantified the construct of AI and tested relationships between AI and other constructs that had not been done before.

The model was tested at one point in time without any processes or input. Next steps might include pre and post inventories; that is, the survey could be administered prior to an appreciativeinquiry process that infuses distributed leadership and organizational learning and again after the processes. Testing the model post process may strengthen the model.

This model tested whether AI to CCSS preparedness was either mediated by distributed leadership or organizational learning. As both distributed leadership and organizational learning each partially mediated the AI to CCSS preparedness relationship and the two mediator constructs were so strongly correlated, a new research question has emerged: What is the relationship between AI to CCSS preparedness as mediated by distributed leadership and organizational learning? The model may look a little different based on the results and the mediation may be stronger.

Contribution to the Solutions of Problems of Practice

More importantly, this research sets the stage for the coordination of practical reform efforts within and across the five school districts who participated in the study. Common Core State Standards represent a movement from the traditional model of schooling which has been in place for over 100 years. One of the important considerations of the shift is that the CCSS are only the "content of the intended curriculum" not the "pedagogy and curriculum" (Porter et al, 2011, p.103). It is now more important than ever for educators to come together and collaborate around their strengths to innovate pedagogy and create curriculum to meet the needs of all students. Changing teachers' practice is very difficult to achieve (Sleegers et al, 2010; Tyack et al, 1995). However, empowering teachers to create the vision of what learning in their classroom can look like, creates ownership in the change process that is likely to be implemented.

Collaboration among teachers in defining classroom possibilities which

embrace the strengths that exist in the system and creating their own plan for CCSS implementation will be more meaningful, doable, and powerful than a plan being mandated for implementation. Teachers and administrators need to work in concert "around a single responsibility: a sustained effort to understand and apply CCSS" meaningfully, thoughtfully, and intentionally (Vecellio, 2013, p. 239). It requires a shared understanding, a shared development, and a shared commitment to implement the necessary changes. Distributed leadership embraces the shared leadership role in navigating the implementation of the change, the CCSS. There is evidence that distributed leadership exists within the participating school districts. This is important as it means shared decision-making, effective communication, and teamwork already exist can be embraced in appreciative inquiry.

The most efficacious approach to sustainable change involves the use of distributed leadership for the collective work of continual inquiry, capacity building, and shared decision-making (Copland, 2003). "Leadership for change comes from within the school, growing out of the inquiry process" (Copland, 2003, p. 387). Through the process of inquiry, both individual and collaborative, growth and learning, individually and collectively, lead to change. The data revealed organizational learning was reported by participants, indicating innovation and teamwork were present. This is meaningful, as appreciative inquiry is reliant on the social construction of knowledge; that is, learning and understanding through conversations with others.

Deep, purposeful, and masterful learning is needed for purposeful and meaningful change to occur. As mentioned, the CCSS represent a monumental shift in how educators have done business. The new CCSS cannot be exchanged out rightly with the 1997 standards. Educators have to change their practices and materials to teach the CCSS. Participants reported they are only moderately prepared for CCSS implementation. Organizational learning, "a process of individual and collective inquiry that modifies or constructs organizational theories-in-use" is necessary to prepare educators for the shift (Collinson et al, 2006, p. 109). To change educational practice, educators need to learn through inquiry and apply the learning in their own classrooms. Change occurs as a result of contextualizing new learning within the best of past practice. The individual and collective strengths of all educators in the organization need to be uncovered so strengths can be embraced in designing future educational practices and pedagogy.

Leaders embracing Appreciative Inquiry "send a clear and consistent message: positive change is the pathway to success around here" (Cooperrider & Whitney, 2005, p. 46). There is research offering testimonial support for AI's effectiveness. However, previously little research existed which empirically validated its effective use in education. This study has shown that the necessary elements for AI to work were present in the sample, and correlations between the desired outcome and the use of AI were significant. This study has addressed the gap by starting a process for empirical validation of AI in education. Educational leaders can use the validated model as a framework for implementing reform.

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