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Understanding Leadership for Adaptive Change in Catholic Schools: A Complexity Perspective

Andrew F. Miller¹, Anna Noble¹ and Patrick McQuillan¹

Abstract: In an era of decline and crisis, Catholic school leaders have been encouraged to find innovative ways to enhance a school’s operational vitality. Yet to this point, most research on educational change in Catholic schools has focused on the technical tasks school principals can take to “save” individual schools. In this article, we apply a complexity perspective to educational change leadership in Catholic education: leadership for adaptive change. Based on a new empirical analysis of the professional experiences of two Catholic school principals working at four different parish schools, we demonstrate in this article how leadership for adaptive change can operate in Catholic elementary parish schools and assess whether and how the attributes of complex adaptive schools were present in these four elementary schools. We also highlight the organizational and social conditions these two principals confronted that both undermined and promoted their ability to lead for adaptive change at these four schools. Ultimately, we suggest in this article the utility of using a “complex adaptive” approach to understanding change leadership in Catholic elementary schools as opposed to “technically rational” approaches commonly found in contemporary Catholic school leadership research.

Keywords: Catholic school leadership, educational change, complexity, adaptive change

There is an emerging consensus in the U.S. Catholic school sector that organizational models present in parish elementary schools are poorly designed to address intersecting crises related to governance, leadership, and academic quality (Dorner et al., 2011; Foundations, 2020; Ozar & WeitzelO’Neill, 2012). Although some schools saw increases in student enrollment

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in the 2021-2022 academic year following the declining enrollment trends through the beginning of the COVID-19 pandemic (National Catholic Educational Association [NCEA], nd), continued trends point to the persistence of school closures and declining enrollment within the sector (Boyle et al., 2020; Garnett, 2020; McDonald and Schultz, 2019, 2020, 2021). Therefore, advocates for U.S. Catholic education have continually called for researchers, practitioners, and policymakers to assess what it will take to enhance Catholic schools' operational vitality (FADICA, 2020; Miserandino, 2019; O'Keefe & Scheopner, 2007). Many of these sector advocates have assumed, as O'Keefe and Goldschmidt (2014) noted, that

Catholic schools cannot survive in their current form. The so-called "signs of the times" point to a need for meaningful reform of the Catholic educational system. In this context, status quo or, worse, passivity will equate to a failure to preserve these "great gifts to the Church."

(p. 230)

Yet because of a history of decentralized governance of Catholic schools (Bryk et al., 1993) and a culture lacking in systemic reform across the sector (Peurach et al., 2019), the success of educational change in Catholic schools has come to be associated with a school leader's ability to keep an individual school open.

Researchers within the field of Catholic education have made efforts to delineate specific managerial, academic, and spiritual organizational tasks school leaders could perform to enhance an individual school's sustainability (Boyle, 2016; Ozar et al., 2019; Schuttloffel, 2007). Yet most of the current research and practice efforts to enhance the quality of Catholic school leadership have held Catholic school leaders individually responsible for "navigat[ing] the tension among two sets of issues: (a) how to become both academically excellent and equitable for all students and (b) how to preserve fidelity to historical system identity while increasing system flexibility" (Neumerski & Cohen, 2019, p. 907). As explained in more detail below, contemporary Catholic school leadership frameworks have prioritized a "technically rational" approach to school leadership, in which effective leaders are presumed to solve complicated organizational problems efficiently by drawing on research-informed "best practices" (Mehta, 2013; Mehta & Fine, 2019). Subsequently, most Catholic school leadership literature has focused on exemplary leaders who have already accomplished major educational change rather than the systemic process of change management in Catholic schools (FADICA, 2015, 2020; Schuttloffel, 2007; Goldschmidt & Walsh, 2013; Smarick & Robson, 2015).

Educational change scholarship has long held that schools are non-linear systems constantly confronting turbulences and perturbations in the process of pursuing change (Beabout, 2012; McQuillan, 2014). This research has suggested that a "complex adaptive" approach to leadership can better assist a school in managing systemic reform than the "technically rational" approach

currently dominant in Catholic school leadership research. The “complex adaptive” approach is focused on sharing control and authority across school actors, promoting instructional leadership, and generating common school values with the overarching intent of enhancing relational trust (McQuillan, forthcoming). There has to this point, though, been little research attempting to make sense of whether and how Catholic school leaders develop the multidimensional organizational, spiritual, and academic decision-making skills required to lead in a “complex adaptive” versus “technically rational” manner, or what Kershner and McQuillan (2016) have called “leadership for adaptive change.” One of the major problems confronting leaders in individual Catholic schools is the lack of research-informed guidance about what “leadership for adaptive change” looks like in the Catholic sector at a time of persistent organizational crisis.

In this article, we sought to address this research gap by examining how leadership for adaptive change can work in Catholic parish elementary schools. To do so, we examined the relative presence or absence of complex adaptive school attributes in a set of Catholic schools engaged in ongoing change management processes. The analysis we present in this article was guided by the following research questions: (1) What does leadership for adaptive change look like within Catholic parish elementary schools? (2) How far through complex cycles of emergence was a school leader able to lead the school? (3) What were the conditions that contributed to or hindered that school leader’s ability to lead for adaptive change within a particular school?

We begin this article by briefly reviewing contemporary empirical literature on Catholic school leadership for educational change and describing how the “leadership for adaptive change” framework (McQuillan, 2016) allowed us to better make sense of the interrelated managerial, academic, and spiritual organizational decisions confronting contemporary Catholic school leaders than currently available “technically rational” approaches to Catholic school leadership. Informed by this framework and based on our empirical analysis of the professional experiences of two Catholic school principals working to lead change at four different parish-governed schools, we then present four themes that highlight what leadership for adaptive change can look like in contemporary Catholic elementary schools. We demonstrate in this paper a few organizational and social conditions confronted by these principals which both undermined and promoted their ability to lead for adaptive change. Further, we suggest that these conditions are illustrative of the conditions present in Catholic parish elementary schools, which remains the most prevalent organizational form of Catholic schooling in the U.S. (NCEA, nd). Through our findings and empirical data, we generate a framework for understanding interactions among a range of factors linked to educational change within the ever-transforming, complex systems of contemporary Catholic elementary schools. We conclude this article by emphasizing how continuity of school leadership and organizational systems are essential for adaptive change to be sustained in Catholic schools, which we ultimately suggest is a more useful approach to Catholic school leadership than

currently popular “technically rational” approaches.

Empirical and Theoretical Grounding

Prior to presenting our empirical findings, we first present a brief review of contemporary research on Catholic school leadership and change as well as a summary of the theoretical and conceptual perspectives that informed and shaped our analysis.

Previous Research on Educational Change in Catholic Schools

In an era defined for the past thirty years by student enrollment declines (NCEA, nd) (Cattaro & Cooper, 2007), research and practice in Catholic education has frequently turned toward the roles, responsibilities, and formation of individual Catholic school leaders. Following Bryk et al.’s (1993) seminal *Catholic Schools and the Common Good*, which identified organizational features in Catholic schools associated with positive student learning outcomes, Catholic school researchers focused on studying effective leadership preparation in schools that reproduced these organizational features (Boyle, 2016). These researchers placed an increase focus in recent years on articulating frameworks for the technical practices which high quality, effective Catholic school leaders must employ to confront organizational challenges and become successful managerial, academic, and spiritual leaders in contemporary Catholic schools. Evidence of this heightened focus can be found in recent focus sections of the *Journal of Catholic Education* (Boyle, 2016; Ozar et al., 2019), summaries of Catholic educational leadership research trends (Schuttloffel, 2007), and reports on the current state of the Catholic school principalship (Nuzzi et al., 2013).

Yet in recent studies of the impacts of changing educational policy environments on school organizational decision-making in the Catholic sector, Dorner et al. (2011) and Neumerski and Cohen (2019) have suggested that the technical managerial, academic, and spiritual leadership practices Catholic school leaders have been encouraged to employ have not helped reverse negative organizational trends across the system. Though the development and use of these Catholic leadership “best practices” have been associated with the improvement of the quality of individual Catholic school leaders (Nuzzi et al., 2013), there has not been research establishing a causal relationship between the improvement of these technical skills and the reduction of financial and operational issues facing most Catholic schools in most dioceses (FADICA, 2020). In short, Catholic school leadership quality has been viewed by sector researchers, advocates, and policymakers as the primary cause of and solution to the sector’s organizational crisis. But until now, the research-informed guidance on Catholic school leadership produced to help leaders better manage educational change in their schools has not led to widespread reform of the U.S. Catholic school sector. Therefore, as we suggest in this paper, a different approach to Catholic school leadership rooted in complex educational change theories may be necessary to better understand the relationship between Catholic school leadership and change management.

Conceptual and Theoretical Frameworks

As researchers making sense of the educational change process in Catholic elementary schools, we employed a conceptual framework derived from complexity theory to identify those factors linked to robust systems change and how they were manifest in leaders' decision-making strategies. In addition, we used a critical realism theoretical lens to shed light on the factors and strategies leaders enacted in their decision-making that contributed to the school community's progress through the change process.

Connecting Complex Adaptive Schools and Leadership for Adaptive Change

In order to track the complexity of organizational and educational change processes in Catholic elementary schools and to assess the extent to which individual Catholic school leaders navigate, manage, and engage these processes, we employed a conceptual framework informed by Kershner and McQuillan's (2016) understanding of "leadership for adaptive change."

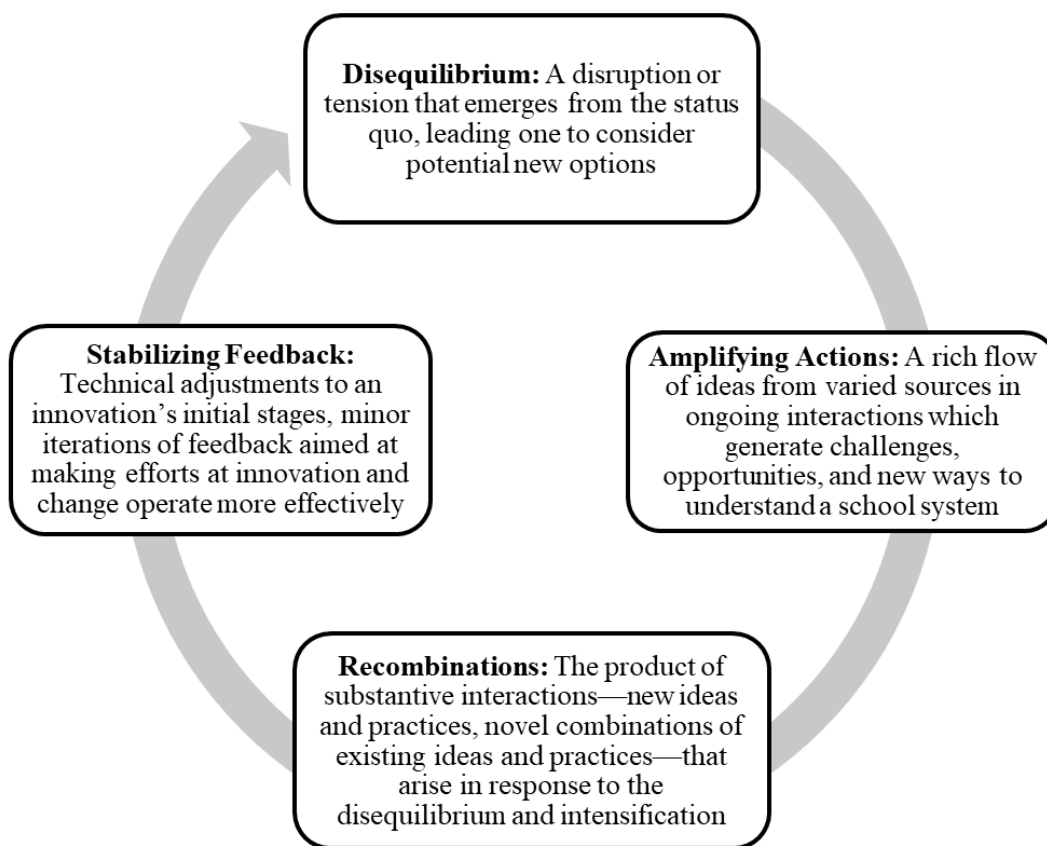
For the past 30 years, educational change research in the U.S. has been broadly focused on discovering ways that schools navigate an outcomes-oriented policy environment focused on improvements to instructional quality and student learning (Mehta & Fine, 2019; Peurach et al., 2019). The organizational and institutional frameworks dominant in educational change research have stressed the importance of observing the relationship between organizational contexts and stakeholder perspectives in order to establish grounded knowledge about how schools adapt, change, or reform themselves within the constraints of broader institutional system goals (Dorner et al., 2011; Hopkins et al., 2019; Schneider & Saultz, 2020; Yurkofsky et al., 2020, ?). Some educational change researchers have looked to complexity theory, a broad family of theoretical approaches that aims to understand school change—or a lack thereof—as a reflection of the interconnections underlying the organizational and institutional relationships among school stakeholders, school leaders, and students in this contemporary change era.

Complexity theory in educational change emphasizes the non-linear nature of elementary and secondary school organizations and systems, noting those features of school systems that seem inherently common to these particular institutions, being comprised of diverse, interdependent parts that interact at multiple levels in unpredictable ways, intended to shape the thinking of students, teachers, and school administrators and leading to both positive and negative long-term outcomes for each of these entities (Davis & Sumara, 2006; Fenwick, 2010; Lewin, 1999). Lasting, positive, adaptive change is difficult to create in such complex systems because the system's latent unpredictability creates the potential for moments of disequilibrium that continually disrupt a school's operations without the system's ability to respond in an adaptive way (Reigeluth, 2008). Any complex system like a school is therefore potentially subject to perturbations which disrupt that school's equilibrium (Beabout, 2012), but it has been shown that a "complex adaptive school" can

successfully navigate through what complexity theorists refer to as a “cycle of emergence” given the right initial conditions for adaptive change and subsequent strategic reactions (McQuillan, 2016). These cycles of emergence illustrate how a complex adaptive school moves from a stable moment of initial equilibrium, through the introduction of disequilibrium, all the way to the emergence of a new state of equilibrium (McQuillan, 2014). Figure 1 contains an image summarizing the progress that complex adaptive schools can make as they navigate a “cycle of emergence.”

Figure 1

How Complex Adaptive Systems Progress through Cycles of Emergence



Despite the unpredictability of a complex system navigating disequilibrium, complexity researchers have found across complex adaptive school environments a stable set of attributes associated with schools that successfully navigate from disequilibrium through the cycle of emergence (McQuillan, forthcoming). According to Kershner and McQuillan (2016), summarizing these efforts, complex adaptive schools are marked by four distinct attributes: positive school culture, distributed authority structures, intentional instructional leadership, and

heightened relational trust. Kershner and McQuillan (2016) suggest that to create a complex adaptive school, a school must find a way to enact “leadership for adaptive change,” the form of leadership that creates conditions which develop the four core attributes of complex adaptive schools. Though school leadership has long been a central focus of educational change research from an organizational or institutional perspective (Spillane & Lowenhaupt, 2019; Hallinger, 2011), “leadership for adaptive change” from a complexity theory perspective shifts emphasis from the technical tasks a leader accomplishes to the adaptive conditions a leader promotes that contribute to successfully navigating through cycles of emergence.

In short, the literature on complexity and educational change has suggested the following: leadership for adaptive change can be leveraged in schools to establish complex adaptive dynamics that allow them to successfully manage change and withstand the emergence of new disequilibrium moments. These conceptual premises about complexity and educational change informed how we made sense of the possibilities for educational change at each of the four school sites we present in this study.

Critical Realist Approach to Understanding Complex Systems

The data collection and analysis in this study were also informed by a critical realist theoretical orientation. Critical realism seeks to understand the world at multiple levels of complexity and to make sense of how change is possible in nested, intersecting, complex systems like schools (Goertz, 2006; Sayer, 2000). Examining multiple levels of interaction reveals how systems like complex adaptive schools are “simultaneously a unity, a collection of unities, and a component of a grander unit” (Davis & Sumara, 2006, p. 88). Critical realism, then, calls for a process-oriented approach: attending to context, detailing the values and beliefs that inform participants’ thinking, and aiming to understand the underlying causal structures that produce certain outcomes (House, 1991; Maxwell, 2004; Sayer, 2000). Since this study intends to understand whether and how leadership for adaptive change was made possible by two principals serving in four different school sites, this critical realist approach allowed us to examine our data for the underlying structural and ideological mechanisms through which certain school leadership processes readied those schools for complex adaptive change (or didn’t). Looking at case data through this lens allowed us to trace both the way leaders’ actions influenced the development of the core attributes of complex adaptive schools (school culture, distributed authority, instructional leadership, relational trust) and the way these schools navigated cycles of emergence in light of their unique situational contexts.

Critical realism also requires a methodological shift away from attempting to demonstrate causality toward an emphasis on the contingency of causality (Pawson & Tilley, 1997). This theoretical approach leads to the use of process-tracing methods and longitudinal case study designs, which were employed in this study, to look for “the conditions under which specified

outcomes occur, and the mechanisms through which they occur” (George & Bennett, 2005, p. 31). Informed by this methodological commitment, we did not expect to uncover a linear cause-effect relationship between effective leadership for adaptive change and a complex adaptive school successfully navigating through cycles of emergence. Rather, employing this lens in data analysis revealed patterns and tendencies that existed in the four complex adaptive schools we studied over time and allowed us to make grounded assertions (Glaser & Strauss, 1967) about whether and how leadership for adaptive change was established or sustained.

Methods

This article presents a new analysis of data derived from qualitative case studies (Stake, 2006) of principals who participated in the Lynch Leadership Academy (LLA) at Boston College. Principals from the initial 2011 LLA cohort were recruited to participate in these case studies to better understand the principalship in context. Two cohort members working in Catholic schools, who we refer to by the pseudonyms Helen and Katherine, agreed to participate in longitudinal case studies of their professional experiences across years and school positions. For this article, we draw upon data from these two longitudinal studies, conducted between 2011 and 2021.

Data Collection

The research team employed process-tracing methods during case study data collection (Maxwell, 2004; Shadish et al., 2002) to develop a data-rich, nuanced understanding of each principal’s progress through the principalship and the degree to which they were or weren’t able to promote robust systems transformation. These methods consisted of general qualitative data collection strategies: interviews, site visits, observations, and reviewing documents relevant to the study’s broad scope of inquiry (Creswell & Poth, 2018).

Interviews were semi-structured (Merriam, 2009) and lasted approximately one hour for each participant, following the same general protocol focused on educational change within the school community. During their initial years as principal at each campus they led, Helen and Katherine were interviewed annually. We then conducted follow-up interviews semi-annually, resulting in more than ten interviews per principal. Additional research participants at each school, including teachers, parents, and other key stakeholders, were also interviewed in order to triangulate the principals’ interview data and assess the trustworthiness of the principals’ assessment of their school’s change management progress. Site visits occurred at each school to ensure that enough evidence of the interactions between leadership and school dynamics was collected for the case data. Documented observations conducted during site visits focused on events that would allow us to better understand the complexity of leadership processes (e.g., faculty meetings, teacher team meetings, religious and community meetings, classroom visits). Internal and external site

documents were collected and chosen for their relevance to school culture and leadership (e.g., strategic plans, communications with stakeholders, lesson plans, promotional materials) in order to triangulate findings across and within case study sites (Bowen, 2009).

It should be noted, as explained in more detail below, that Helen remained at a single school from 2011 to 2021 while Katherine moved to three different schools. Therefore, there is more follow-up data from the one school where Helen remained principal (St. Catherine School) than at any of the three schools where Katherine was employed. We made sure to account for this gap in the amount of raw data at each school by ensuring that consistent types of data were collected at all three sites.

Table 1 contains a summary of data sources, the timeline for data collection, and examples of the different interviews, observations, and documents collected and gathered at each school site.

Data Analysis

To answer our research questions for this new analysis of previously collected LLA case study data, our research team re-coded these qualitative data in a “consensual” way (Hill et al., 1997). Our research team generated initial codes from the data by looking for emergent themes in the data corpus (Charmaz, 2000) related to leadership for adaptive change. This open, initial coding process was done collectively by the authors so that we could make sense of what leadership for adaptive change looked like for the four focal schools under investigation. Several consensual, qualitative coding calibration sessions were held by the authors of this article to reach clarity on meaning across the initial codes (Hill et al., 1997). Some examples of these initial codes were “principal experience with disequilibrium” and “principals taking stock of initial conditions.”

After each author engaged in an analytical memoing process about leadership for adaptive change in each school informed by this initial round of coding, we collectively re-analyzed analytical insights that had been generated in earlier studies of each of these two principals. This secondary analysis revealed the centrality of such themes as distributing leadership, collective instructional innovation, promoting a shared school culture, and enhancing relational trust as means to enriching systems change at school sites (McQuillan, 2014, 2016). Therefore, in our subsequent iterative rounds of re-coding the collected interview, observation, and document case study data for this new analysis, we clustered all of our initial emergent codes into these four categories and used them to structure our findings about the possibility of leadership for adaptive change in these four Catholic elementary schools.

Table 1*School Description, Data Sources, and Data Collection Timeline*

	St. Catherine School	St. Bernard School	Fiorella School	St. Anne School
Principal and Tenure from Start of Study	Helen, 2011-2021	Katherine, 2011-2014	Katherine, 2014-2017	Katherine, 2017-2021
School Organization and Governance	PreK-8, parish-sponsored elementary	K-8, parish-sponsored elementary	PreK-8, parish-sponsored elementary	PreK-8, parish-sponsored elementary with a connected parish high school
School Demographics	Urban (large city), majority black and Latino, mostly low-income	Urban (small city), majority Latino with a large Asian population, mostly low-income	Suburban/rural, majority white, mostly middle to upper income	Urban/suburban (town), majority white, mostly middle to upper income
Data Collection Timeline	2011, with continued follow-up through 2021	2012, follow-up in 2016	2015, follow-up in 2017	2018
Participant Groups	Principal, assistant principal, teachers, parents, students	Principal, teachers, new principal (in 2016 follow-up)	Principal, teachers, parents	Principal, apprentice principal, teachers, guidance counselor, development director, secretary, head of schools
Interviews Conducted	67	5	15	15
Observations Conducted	23 day-long observations (including PLC meetings, PD sessions, regular school sessions)	44 school visits (including classroom writing instruction, professional development sessions)	3 day-long observations (including faculty meetings, classes, morning meeting, First Communion practice, teacher team meetings, student lunch, recess)	2 day-long observations (including classes, morning meeting, rosary recitation, administrative team meeting, parent drop-off)

Continued on next page

Table 1 continued

Sample Documents Collected	School websites, e-mails, bulletin boards, parent notices, PD data, meeting agendas, student work, mission statement, newsletters	Lesson plans, copies of student writing, e-mails, meeting notes, teacher surveys, weekly newsletters, teachers' manual and rubrics	Meeting agendas, strategic plan, mission statement, lesson plans, student texts, sample student work, bulletin boards, student art	Meeting agendas, staff survey, lesson plans, sample student work, bulletin boards, promotional materials
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Case Study Participants and Contexts: The Principals and Their Schools

At the beginning of the two longitudinal case studies in the fall of 2011, Helen and Katherine had just enrolled in LLA's initial cohort. Helen, a middle-aged white woman, was beginning her third year as principal at St. Catherine's after more than 20 years at the school in other roles. Katherine, a white woman in her 30s, had recently started working at St. Bernard School in her first years as a principal, having come into the principalship after an early career teaching in other local Catholic schools. Throughout the data collection, Helen remained the principal of St. Catherine's while Katherine moved from St. Bernard's to Fiorella to St. Anne's. The information below, also summarized in Table 1, provides additional context about how each of the four focal schools in our analysis were organized and how this related to their individual change management process.

St. Catherine School is a PreK-8 parish school located within the urban center of a large, Northeastern archdiocese. St. Catherine's has shifted in the last thirty years from serving a predominantly white, middle income population to serving a predominantly black and Latinx, low-to-middle income population. Like many parish elementary schools located in urban centers (Cattaro & Cooper, 2007; Defiore, 2014; Goldschmidt & Walsh, 2013), St. Catherine's has confronted economic hardship due to shifting socioeconomic and ethnic-racial demographics within its neighborhood, creating sustained pressures for school leadership. Helen has confronted these challenging organizational conditions during her tenure as principal. Our data show that she has articulated and implemented a new school culture in the past ten years by emphasizing shared ownership over instructional decision-making and professionalizing the instructional skillset of her faculty. This has built trust within the school community and allowed St. Catherine's to thrive in this archdiocese as several other urban parish schools have closed.

St. Bernard School, where Katherine worked from 2011 to 2014, was a K-8 parish school in a neighboring, densely populated city within the same archdiocese as St. Catherine's. When Katherine became principal, 65% of St. Bernard's students identified as Latinx or Hispanic and 17% identified as Asian; a majority spoke a language other than English at home. Most families at St. Bernard's were low income and many recently migrated to the United States. Katherine brought enthusiasm for change to the school as a new principal and made several efforts to implement adaptive change strategies at St. Bernard's, influenced by her ongoing LLA experiences. But after her departure for an opportunity to lead Fiorella school in 2014, the challenging economic, professional, and operational conditions confronting the school community remained with little lasting change having been established. St. Bernard School, which had been open for almost 150 years, was closed at the end of the 2019-2020 academic year due in part to these challenges.

Fiorella School, where Katherine worked from 2014 to 2017, is a PreK-8 parish school in a less densely populated area of a large, mid-Atlantic archdiocese. Similar to other suburban or

rural parish elementary schools (NCEA, nd), Fiorella contains more wealthy, white students than most urban Catholic schools. Unlike what Katherine experienced at St. Bernard's, Fiorella was a school initially marked by a high level of relational trust among faculty, parents, and students. These conditions allowed Katherine to create action plans rooted in shared values and to establish a decentralized decision-making network among faculty to implement and monitor those plans. Katherine continued to nurture the distributed leadership systems that she established at Fiorella until her departure for a leadership opportunity at St. Anne School in 2018.

St. Anne School, where Katherine worked from 2017 to 2021, is a PreK-8 parish school in a densely populated town in the same archdiocese as St. Catherine's and St. Bernard's. Student demographics at St. Anne's mirror the town's demographics; the overwhelming majority of students are white and most families have incomes at or above the area's median income. St. Anne's governing parish also oversees a high school and an early childhood center. Though St. Anne's had always experienced collegial relationships with the other units within this parish governance model, within weeks of accepting the principal position at St. Anne's, Katherine was informed that St. Anne's would be officially merging with the high school to create a consistent K-12 pathway for students. It is evident from data we collected on Katherine's tenure at St. Anne's that shifts in organizational conditions directly impacted Katherine's ability to establish the structural and cultural changes she hoped to bring to the elementary school.

Findings

In this article we employed Kershner and McQuillan (2016) complex adaptive schools heuristic to help make sense of what leadership for adaptive change does and does not look like in four Catholic elementary parish schools. Kershner and McQuillan (2016) suggest that a complex adaptive school is one marked by four core attributes: shared school culture, distributed authority structures, intentional instructional leadership, and heightened relational trust. In our re-analysis of Helen's and Katherine's case study data, we found that the presence of leadership for adaptive change and the ability for school leaders to successfully navigate change management in a Catholic parish elementary school required all four attributes to work together. The four themes presented below demonstrate the way these four attributes either were or were not developed by Helen and Katherine in their principalships in distinct ways, highlighting the extent to which leadership for adaptive change contributed to these schools becoming complex adaptive schools and better confronted the organizational challenges each school faced (as described above in the site descriptions). Table 2 presents a summary of the four themes described in this section.

Table 2*Summary of Findings Related to Cycles of Emergence and Leadership for Adaptive Change*

	St. Catherine School	St. Bernard School	Fiorella School	St. Anne School
Principal and Tenure from Start of Study	Helen, 2011-2021	Katherine, 2011-2014	Katherine, 2014-2017	Katherine, 2017-2021
Ways the School Navigated Cycles of Emergence	Professional development was ongoing and offered teachers opportunities for continued growth and development	N/A, navigating disequilibrium	Paraprofessionals expanded from initial classrooms to being available school-wide. Themes adopted in teachers' classroom curricula	N/A, navigating disequilibrium
Evidence of Shared School Culture?	Yes, commitment to a shared acronym (DREAM BIG)	No	Yes, e.g., yearly themes, morning meeting	Yes, e.g., yearly themes, virtues of the month, morning meeting
Evidence of Distributed Authority?	Yes, ILT empowered to work with principal, principal recognized others' talents	Yes, e.g., Cluster Leaders	Yes, e.g., Strategic Planning Committee formed in year 3	Yes, e.g., ILT, GLL, School Climate Committee, Apprentice Principal
Evidence of Intentional Instructional Leadership?	Yes, set professional development goals such as differentiated instruction expected from all teachers	No, attempts were unsuccessful, e.g., writing curriculum	Yes, e.g., Paraprofessionals, expansion of pre-K program	No, new math curriculum and curricular alignment with high school signaled start to instructional change
Evidence of Heightened Relational Trust?	Yes, teachers collaborated in many contexts	No, eroded trust by attempting changes teachers felt conflicted with school identity	Yes, e.g., 1:1 efforts at trust building, consistent attendance at community and school events	No, not seen as present and available, merger fostered a sense of mistrust

Building School Culture Despite the Uncertainty of Educational Change

The complex adaptive schools heuristic (McQuillan, 2014) suggests that, since the nature of change is unpredictable, particularly in moments of organizational disequilibrium or turbulence (Beabout, 2012), implementing a positive response to change is an inherently uncertain endeavor. Therefore, a complex adaptive approach to school leadership must focus instead on establishing and maintaining a shared school culture that allows a school to collectively experience and navigate the process of change together, creating the capacity to weather the uncertainty of moments of disequilibrium more successfully. Consistent with this approach, we found in our analysis that Helen and Katherine led for adaptive change more successfully when they were able to build a collectively willing culture to embrace the ongoing work of change management.

Our analyses of Fiorella and St. Catherine schools suggest that Katherine and Helen were able to successfully manage change at these schools in part because they conveyed to their staffs that change would be inevitable and necessary. As Helen said, reflecting on the early days of change management at St. Catherine,

I knew I wanted to make changes coming in because I had been here for so long...Most of the decisions were made up top and then enforced down. I knew that wasn't me. I wanted to learn how to be a principal who could recognize leadership in others and then empower those people with the proper tools and resources...Initially, there was some resistance from the old guard, like, "Who is this new upstart coming in here?" But I'm very blunt. I just hit that head-on. I just brought them all into a room downstairs and I said, "What are our goals? What are our priorities? And why are we here? It is to teach children, get good academic results, form them into good citizens for the 21st century." And that kind of broke the ice and they all started working together, and now they're a team.

Both principals confronted the inevitability and necessity of change, though, by signaling to their faculties that this confrontation would happen collectively and that the disruptive burdens of change would be a shared experience. Our review of the documents and observations collected at each of these two school sites demonstrate how Helen and Katherine introduced academic and organizational changes alongside increased financial and personnel support so staff knew they had the money, space, and time to integrate these changes into their practice. Similarly, professional development meeting agenda notes highlighted how both principals invited staff recommendations for change, empowering staff to be a part of the collective change process.

These communities reflected the success of this attitudinal approach to change leadership. One staff member at Fiorella noted,

I think that Katherine has brought a new sense of self into this school. At the beginning of the year she gave everybody a shell, as she had when she went on a mission. It's a shell to share where you've been and where you are going to keep it with you on your journey.

Through this small symbol, Katherine showed her staff that, although there was a lot to do, they would all work and confront new challenges in solidarity during their journey together. In similar fashion, a faculty member at St. Catherine's described Helen's commitment to making change a shared process:

I can't imagine [what it is like for] teachers who have been here 25 or 30 years...All of a sudden they're getting all these new changes...But I think they feel comfortable, because they see so many other people are willing to help. And I think Helen wants that. [She will say,] 'Let's try to work together,' and 'This is where we're going.' She's patient.

Helen's patience and perseverance were noted by faculty and staff, who attested to the positive effects this attitude had on their willingness to continue engaging new changes as the school adapted to arising challenges.

Because the current organizational crisis across the Catholic school sector in the U.S. has been associated with school closures and school reconfigurations (e.g., FADICA, 2015 ; NCEA, nd), most Catholic elementary school leaders have had to confront persistent threats to their organizational decision-making (Neumerski & Cohen, 2019). Subsequently, many Catholic elementary school principals have focused on replacing ineffective academic, spiritual, or managerial leadership practices with more effective ones (Ozar & Weitzel-O'Neill, 2012), but with little guidance on the preconditions necessary to sustain these practices. Ultimately, we found that it was the communal nurturing of shared school cultures established by Katherine and Helen at Fiorella and St. Catherine's, displaying both a collective willingness to confront disequilibrium and a capacity to successfully navigate through this turbulence, that allowed Fiorella and St. Catherine's to maintain the vibrant academic, spiritual, and managerial leadership environments that Katherine and Helen knew would be necessary for long-term school success at both places.

Distributing Authority in the Presence of Ingrained School Cultures

Alongside helping faculty and staff develop a willingness to embrace change, the complex adaptive schools heuristic suggests that school leaders must also redistribute status quo power arrangements to better meet the needs of constantly changing school experiences (McQuillan, 2016). Complex adaptive schools will more successfully navigate reforms when more stakeholders have shared ownership over the process of change management in a school. Implementing distributed leadership structures in schools has become a commonplace recommendation within the educational change literature because of the effects this strategy has on creating positive, adaptive change in schools (Spillane, 2006). Consistent with these recommendations, we found evidence of distributed authority and leadership structures at each of the four schools, influenced mainly by Katherine and Helen's commitment to create the shared school cultures described above. However, we also found in our re-analysis of the case study data that the degree to which this distribution of

authority helped Helen and Katherine lead for adaptive change in Catholic schools depended on the initial conditions present in each school.

At St. Catherine's, the biggest challenge confronting Helen from the school's initial conditions was the belief that the way the school had been academically organized for decades was the single best way to run the school, with the principal making top-down managerial decisions so teachers can make individual classroom academic decisions. Once Helen became principal, she started realizing that she could change this "one best way." In an early interview she mentioned, "[My style] is definitely not top-down...but that's all I was mentored [to do]." In another interview, Helen elaborated,

I'm not one to go around and tell [teachers] what to do. I'll give you guidance...but it has to be teacher-led...[With] the former principal...it was all top down...very strict...I wanted to learn how to be a principal who could recognize leadership in others and empower those people with the proper tools and resources.

Faculty appreciated the fact that Helen was willing to distribute authority; as one staff member noted, "I love the changes because they are forcing everybody to step up their game." The change in decision-making structures led to an embrace of change even though there had been a "one best way" dominating the school's approach to authority for decades. All it took was the realization that another way was possible and having Helen regularly ask and cajole faculty to embrace this stance.

This pattern of coming to realize the importance of shared ownership for change was also experienced at Fiorella, where one teacher noted, "Katherine will say, 'Look, if you have other thoughts or other ideas, I want to know...'" Katherine always wants our input. It's not a dictatorship." Helen and Katherine found each of these schools had a latent capacity to practice some form of distributed decision-making across academic, spiritual, and managerial domains, but required their leader to strengthen and prioritize this latent capacity.

At St. Bernard's and St. Anne's, the initial conditions were such that wholesale changes to authority were not possible, in large part because the faculty experienced no urgency for change and therefore resisted such changes. At neither school was Katherine able to create truly distributive structures; for example, observations at St. Bernard highlighted teachers entrenched in past practices such as teachers reading directly from the textbook or teaching entire lessons seated behind their desk, and observations at St. Anne found teachers bitter about a perceived lack of compensation to do additional work, seen in their complaints about additional recess duty and a longer school day. However, Katherine was able to distribute some decision-making powers to particular individuals in these schools who were ready to embrace change, and in doing so raised the professional capacity of those individuals within the school community. This is best exemplified at St. Anne's, where in order to accomplish all the administrative and instructional tasks Katherine

needed to complete, she directly shared authority with her assistant principal (a position that did not exist before Katherine's tenure). This assistant principal noted,

I am so grateful that she has literally put a desk in her office [for me]. Because I don't think I would have the full picture of what this job looks like if I did not share this space with her. And with that, I think that having her as a conversation partner and listening to her ideas and her willingness to listen to my ideas has helped me grow exponentially since the beginning of the year.

Since Katherine determined almost immediately at St. Anne's that the conditions didn't support broad distribution of authority and that change couldn't be successfully managed without this distribution, Katherine empowered an assistant principal to walk alongside her and assume some of these responsibilities.

Advocates for widescale organizational reform in the Catholic sector have called on Catholic school stakeholders to reform the allegedly slow-moving, change-resistant, hierarchical nature of the institutions governing Catholic elementary schools (O'Keefe & Goldschmidt, 2014). These advocates have suggested that the sector's crisis has been exacerbated by poorly designed structures that incentivize ineffective practice, and so leaders must build new structures in order to become effective (FADICA, 2015; 2020). Katherine's experiences at St. Bernard's and St. Anne's seem to confirm this perspective, since leadership for adaptive change didn't fully emerge as a result of the initial conditions at these two schools, and yet she was still able to distribute leadership and authority to positive effect in both places. So while our data show that harsh initial conditions will have considerable impact on the prospects of distributing authority, these initial conditions are not determinative of whether or not some degree of leadership distribution can in fact occur.

Locating Instructional Leadership Appropriately within the Change Process

The third core attribute of complex adaptive schools is their ability to sustain intentional instructional leadership that enhances the culture of teaching and learning within a school (McQuillan, 2016). Since Catholic schools have a historical track record of producing high student achievement outcomes and creating more equitable student achievement for students from different socioeconomic and racial backgrounds (Freeman & Berends, 2016), many Catholic school change advocates have emphasized that improving the academic quality of schools must be at the core of any Catholic educational change management process (Dorner et al., 2011; Neumerski & Cohen, 2019). Consistent with these two premises, we found that leadership for adaptive change only occurred in our four focal schools when Helen and Katherine prioritized reforms to the instructional core. However, despite the centrality of effective instructional leadership to the maintenance of these complex adaptive schools, our findings also suggest that it was only when balancing academic reforms with other necessary spiritual and operational reforms that Helen and

Katherine created sustainable and effective instructional leadership systems in their schools.

At St. Bernard's, which had a reputation for low student achievement, Katherine confronted a challenging dilemma:

[The culture at St. Bernard's] was always about celebrating and 'how can we make everything fun?' to the point where the focus wasn't on learning. And so that was the biggest thing I saw coming in and I thought, 'Okay, this is what we need to work on changing'...There's all these wonderful things, but the academic rigor is not what it should be.

The school culture was defined by Katherine and others as being "great" and as having a "lot of love," so Katherine believed the new instructional leadership strategies would have great effect. But in her efforts to enhance St. Bernard's academic rigor via new instructional leadership strategies such as beginning a series of frequent, unannounced classroom instructional observations, Katherine encountered setbacks: "A crucial piece for me is being in the classrooms.... There was real anxiety about me being in the room." Accordingly, Katherine realized that, despite the need for enhanced rigor and the assumption that the school culture was stable and positive, some other change to reduce the anxiety in the process of implementing instructional reform would be a necessary first step.

A more effective approach was demonstrated at St. Catherine School, where Helen attempted in her initial years as principal to redesign curriculum maps aligned to the Common Core State Standards. The following excerpt from site visit field notes captures a faculty meeting when Helen showed she knew her instructional leadership reforms wouldn't take hold if they were imposed, despite their importance to the work that was needed to update the curriculum at the school:

Technology Coordinator: We should concentrate on smaller pieces of the curriculum to apply skills so we're teaching one piece really deep....

Helen: So how do we put these ideas into practice?

Assistant Principal: We identify topics in the curriculum but which teachers don't teach yet. I will look into the standards and find what are missing.

Helen: Teachers need to dig into the Common Core themselves or they will never learn it, but we will help them as they struggle initially

The reform was clear: increase academic rigor and align instruction to that increased rigor of the curriculum. But Helen demonstrated an awareness, along with her other instructional leaders at this faculty meeting, that the reform couldn't happen without teachers having time and space to adapt and explore. Helen shows the need for principals to weigh the importance of instructional reform with the other needs of the school.

We found that Helen's approach to balancing instructional leadership with other demands and empowering teachers to take over the responsibilities for instructional leadership was one of the primary factors ensuring the success of leadership for adaptive change at St. Catherine's. Katherine and Helen both implemented academic reforms associated with "best practices" (e.g., instructional rounds at St. Bernard's, curriculum mapping at St. Catherine's). But Helen was successful where Katherine wasn't because Helen demonstrated an ability to situate academic reforms alongside an accurate diagnosis of the school's and teachers' readiness for instructional leadership changes. Helen, more so than Katherine at St. Bernard, demonstrated that, while instructional leadership remains essential to change management in Catholic schools, it likely intertwines with other relevant aspects of teaching and learning.

Connecting Relational Trust to a School's Catholic Identity

The final core attribute of the complex adaptive schools heuristic is the presence of relational trust between and among stakeholder groups that allow shared school culture, distributed authority structures, and intentional instructional leadership to coalesce (McQuillan, 2016). Following from Bryk and Schneider's (2002) research into the way relational trust is created in a school, theories of educational change have emphasized the instrumental value of relational trust in successful change management: without its presence, stakeholders' ability to be resilient during change suffers. While our analysis of the presence or absence of leadership for adaptive change in these four Catholic schools did not challenge Bryk and Schneider's (2002) findings, our evidence did indicate that maintaining relational trust for the purposes of successful change management only had value in these schools to the extent that Helen and Katherine were able to root that relational trust in each school's understanding of its Catholic identity and mission.

One key example of this finding came from Katherine's early years at Fiorella, when she realized that there was great academic strength at the school but few connections between school leadership and the broader school community. To address this disconnect, Katherine noted:

My biggest thing my first year was to try to build trust and to try to build relationships and that meant being at every Sunday basketball game and every fundraiser and every event and joining the local parish and going and talking at Masses and doing everything I felt like I possibly could to be visible and be out there and get to know people in the community as well.

Katherine believed trust could only be built within the pre-existing communal, Catholic culture of the school. So beyond her regular presence in the religious and communal rituals to help build trust, Katherine instituted a yearly virtue-oriented theme to help the school coalesce around their school's mission. In the middle of Katherine's tenure at Fiorella, one teacher described Katherine's work with these themes:

Katherine picks a theme and really focuses a lot on that. This year it was with peace. And the whole thing with the peacemakers, you saw the little things, like with the pre-K students holding the doors for each other. The [theme] peacemaker also made an awareness of kids that have learning disabilities or special needs and [taught the students] that you don't want to exclude anybody, you want to accept everybody.

Katherine entered a community assuming that relational trust was a necessary attribute to allow successful change management to take place, but she also knew this trust would not take hold without a clear articulation for how it was rooted in the school's Catholic identity. Her efforts were rewarded by the recognition she received from faculty members as represented in the previous quotation.

As highlighted in this example from Fiorella, we found that Helen and Katherine's efforts at leading for adaptive change at these four schools relied on their ability to align the instrumental and spiritual value of relational trust. Helen and Katherine were only successful at leading for adaptive change when they made efforts at these two schools to frame the work of change management as something that would rely on an emerging relational trust rooted in their school's approach to the work of living out Catholic identity. For example, in reference to the school motto that Helen worked on with her faculty as they navigated change at St. Catherine's, DREAM BIG (Determination, Respect, Excellence, Accountability, Mastery, and Belief in God), "DREAM BIG is everything we are." Relational trust helps a school manage change in its own right (Bryk & Schneider, 2002), but we found that leadership for adaptive change only emerged in these Catholic schools to the extent these two leaders thought carefully through a Catholic approach to relational trust.

The Continuities Necessary to Sustain Change

In our re-analysis of Helen's and Katherine's leadership practice at these four schools, we found the four attributes Kershner and McQuillan (2016) associated with leadership for adaptive change present in different degrees, suggesting the differing extent of Helen's and Katherine's ability to lead for adaptive change. And, as summarized in Table 2, we found that the relative absence or presence of these attributes was also associated with Helen's and Katherine's ability to help move these schools along the path to becoming complex adaptive systems. Ultimately, we found that the organizational challenges Helen and Katherine had to confront in these Catholic elementary parish schools in order to engage in continuous improvement were not unique to these schools. The need for a redeveloped instructional core at St. Catherine's and the need to solve core operational and faculty trust issues at St. Anne's, for example, are very similar to the kinds of managerial, academic, and spiritual leadership challenges confronted by most Catholic elementary school principals (FADICA 2015; 2020; Goldschmidt & Walsh, 2013).

As evidenced above, these challenges called for these two leaders to use more than just a

“technically rational” approach to school leadership. The four themes we’ve presented reflect the different ways Helen and Katherine found to bring a “complex adaptive” approach to their school leadership. In the sections above, we provided evidence of the nuanced range of responses to the intersecting managerial, academic, and spiritual organizational challenges Helen and Katherine implemented, drawing on the four attributes of leadership for adaptive change to enhance their capacity to manage the complexity of organizational change processes. A combination of building a shared school culture ready to embrace change, distributing authority without disrupting all previously present power structures, appropriately balancing instructional leadership reform with other organizational reforms, and relying on relational trust rooted in Catholic identity allowed Helen and Katherine to succeed at sustaining changes where each attribute could be made to work in concert.

Yet it is important to note that Helen and Katherine were not universally successful at navigating through complex cycles of emergence at all four schools. For example, St. Bernard’s struggled during and after Katherine’s tenure and has since closed; St. Anne’s K-8 program remains in development with long-term success and yet is still undetermined, in part, because of Katherine’s lack of capacity to change maladaptive initial conditions. In our assessment, St. Catherine’s and Fiorella were much further along the process of becoming complex adaptive schools than St. Bernard’s or St. Anne’s. And the degree to which the four attributes of leadership for adaptive change worked collectively for each principal at each campus ultimately depended on the presence of two continuities, continuity of school leadership and continuity of school organizational system. In this brief final section, we highlight the importance of these two continuities.

We found that having continuity in school leadership is essential for a Catholic elementary school to continue to function in a complex adaptive way. Helen and Katherine stayed at St. Catherine’s and Fiorella, respectively, long enough to guide their communities from moments of disequilibrium to the status quo through the emergence of new adaptive equilibrium. More than any specific feature of leadership for adaptive change these two principals used, it was a leader staying at a school through one “cycle of emergence” (see Figure 1) that allowed St. Catherine’s and Fiorella to remain complex adaptive systems and confront new disequilibria as they emerged. Yet as Rangel (2018) has summarized in her review of the literature on principal turnover in public schools, there is currently high turnover in the principalship, and productive educational change has suffered because of it. While bringing some element of leadership for adaptive change can help solve minor problems or dilemmas within a school, like the creation of a relatively less authoritarian leadership structure at St. Anne’s or the ability to address the low quality of the instructional culture at St. Bernard’s, our findings seem to confirm previous educational change research that suggests meaningful and long-term educational change can only occur when a leader is given as long as a five-to-seven year tenure to address systemic reforms in complex ways (Fullan, 2010). The findings

above highlight the ways Catholic elementary schools can create conditions within the principalship for school leaders to fully navigate a single “cycle of emergence,” but that there will be little prospect for the creation of a resilient and adaptive school culture open to necessary changes unless school leadership structures are constructed with continuity in mind.

Relatedly, the continuity of a school’s organizational system allows all school community members to share in the responsibility of change management. For reasons as varied as uncompetitive salaries and job satisfaction (Boyle, 2016), Catholic schools cannot always retain high quality principals. But partially moving against the emerging common sense in the field that assumes leadership problems may be solved if the parish-based system of governance in these elementary schools were fundamentally changed or altered (Smarick & Robson, 2015), our findings suggest the parish model can in fact be made an effective site of complex adaptive change. The political stability of the initial conditions at the parish-organized schools most associated with complex adaptive leadership in our study (St. Catherine’s and Fiorella) was defined by the willingness of pastors, advisory boards, and other powerful community stakeholders to continue to support the change management processes Helen and Katherine enacted at each school, further supporting their ability to sustain themselves in their leadership roles at each school. Organizational structures were sustained at both schools over multiple years; even in the case of Katherine at Fiorella, after Katherine’s tenure ended these structures were sustained because the parish school community was stable and consistent enough to sustain change without the principal being the sole change agent. While having a leader who can lead for adaptive change is a necessary requirement, our findings indicate that it is not sufficient. A Catholic school community hoping to sustain a complex adaptive culture of systemic change must also actively encourage and support a principal attempting to lead for adaptive change.

Conclusions, Limitations, and Recommendations

We have shown in this article what leadership for adaptive change can look like in Catholic elementary schools and the ways Catholic schools can be transformed into complex adaptive schools better able to confront the organizational challenges most Catholic elementary schools face in an era defined by student enrollment declines and increasing school closures. In addition, we have highlighted in this article how the four attributes of leadership for adaptive change must be combined and aligned to a school’s mission rather than mandated based on a leader’s preferences, and we have pointed to the primary organizational continuities that seem to be necessary for a Catholic elementary school to reflexively maintain a culture of complex adaptive change.

The major limitation of this study of complex change management in Catholic elementary schools, though, is that while we have ample evidence of the initial conditions and changes that occurred at each school and in Helen and Katherine’s leadership styles over ten years, we primarily

looked at the factors that contribute to a school becoming a complex adaptive system rather than assessing the impact of these schools becoming complex adaptive systems on the school's ability to stay open. We acknowledge that our decade-long researcher-participant relationships with the two principals in these case studies provided us analytical insight into their leadership practice that most researchers of Catholic school leadership would not readily have, which increases our level of certainty about the trustworthiness of these findings. But it should also be noted that our positionality as qualitative researchers studying Catholic education, educational change, and educational leadership bias us toward looking at the complexities of schools and systems rather than the direct cause and effect of certain leadership inputs on school or student outcomes. While our research suggests that leadership for adaptive change has contributed to the long-term successes at St. Catherine's and Fiorella, we cannot at this point say which of the factors discussed in this article are directly associated with this success.

Therefore, while we can suggest using data collected in these longitudinal qualitative case studies that leadership for adaptive change is possible in Catholic schools and tends to look a certain way, we cannot at this time offer specific guidance about whether the development of leadership for adaptive change within a single school will prevent that school from closing. Catholic elementary schools are complex environments navigating a period of organizational crisis that requires leaders to engage some form of change management. Our initial suggestion in this article that a "complex adaptive" school leadership frame would be more useful for leaders confronting this crisis stems from our assumption that currently popular "technically rational" approaches to school leadership have not adequately assisted most Catholic school leaders in successfully confronting the kind of change management this crisis requires. Yet what this article ultimately can demonstrate is particular, context-specific ways in which Catholic schools operating as complex adaptive systems and employing leadership for adaptive change can find ways to survive in the sector's contemporary era of organizational crisis. As more Catholic schools continue to close as a result of economic and demographic crises, additional research into how school survival can be predicted or replicated will be essential, whether through this framework for leadership for adaptive change or other change management processes or frameworks.

Future research into leadership for adaptive change in Catholic schools must also consider the nuances of what it might mean to establish leadership for adaptive change between and across different types of Catholic elementary school governance models (e.g., in diocesan, private, or multi-parish settings), different geographical locations (e.g., urban, rural, suburban), and different school community racial and socioeconomic demographics. The four schools we worked with represented a range of these features rather than directly comparable situations and environments. Especially as new governance types continue to emerge (FADICA, 2020) and the demographics of who attends which Catholic schools in a given (arch)diocese continue to shift (NCEA, nd), leadership for

adaptive change may share the common features we discuss here but could very well have different emphases depending on the needs and initial conditions of a school.

In addition, future research should look into how educators are prepared to lead Catholic schools. While most leadership preparation at this time emphasizes the technical and skills-based preparation of leaders (Boyle, 2016; Ozar et al., 2019), our research suggests that leaders must be prepared to embrace a complex adaptive schools heuristic in their understanding of ongoing educational changes in schools. The themes and continuities discussed above could help to guide the curriculum design of future leadership preparation in diocesan training programs or university-based leadership preparation efforts.

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