Co-creation as a catalyst to organizational change: Exploring educators' and designers' perceptions during the design of new learning environments

by

Michelle Ann Meyer Chavey

B.Arch., Kansas State University, 2005
M.Arch., University of Kansas, 2009

AN ABSTRACT OF A DISSERTATION

submitted in partial fulfillment of the requirements for the degree

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Department of Educational Leadership
College of Education

KANSAS STATE UNIVERSITY
Manhattan, Kansas

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Abstract

This qualitative research was designed as a participatory evaluative case study to explore the co-creation of new learning environments as a component of organizational change. It examines educators' perceptions from a Midwestern suburban school district working with an architectural firm to design a new middle school. Research questions focused on: 1) The evaluation of a belief-based visioning effort during the co-creation of a new learning environment and 2) school district administrator views of how organizational change is impacted and implemented through co-creation and beyond. For the methodological approach, a case study was utilized and bounded by the early phases of an architectural design process – programming and schematic design – and involved the views of district-level administrators, building-level administrators, certified teachers, and architectural designers. Data for this study was collected through interviews, focus group discussions, documentation, and observation of the design process during co-creation meetings between the designers and the educators. Taking an iterative approach to data analysis, I moved through a series of cycles to consider angles from both the researcher and practitioner perspectives. A multistep coding process was used to understand common themes related to each research question with the connecting threads of co-creation woven through each and its implication on successful change. Findings showed the belief-based visioning tool had merit and was valuable to the educators who crafted the vision, as well as the designers who used the final learning-belief statements in the co-creation process. With additional time for reflection, collaboration, and discussion, the tool could be improved. Time continued to be a major element of this study, as the research revealed that the typical timeframe of the co-creation process to design new learning environments directly conflicts with what we know from literature about navigating organizational change in healthy ways. This revelation

about time, co-creation and change has implications for designers and educators interested in implementing a co-creation process to provide physical environments for learning and a building culture that supports healthy change processes.

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Approved by:

Major Professor
Dr. Alex Red Corn

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A simple desire to better understand the research process resulted in a four-year journey that has changed the way I think about life, both professionally and personally. Without the support of my family, friends, mentors and colleagues, there is no way I could have accomplished this effort while balancing being a professional and a mother.

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Dedication

For my Dad. Your perseverance and grit can only be outdone by your selflessness and love for others. Thank you for showing me what it means to work hard and to love hard. I'm so thankful that you're here. Love you.

Chapter 1 - Introduction

Across the United States, many public school construction projects are brought to completion each year, impacting more than 56 million children and adults as the fields of architecture and education unite (School Planning and Management, 2019). Through this process, designers' and educators' backgrounds are brought together, exposing vast differences in experiences, understandings, and areas of expertise. Through my 15-year career in the architecture industry, I have experienced first-hand the challenges in communication and understanding as educators and designers engage in conversations about student learning experiences and potential opportunities for space to be used as a supportive tool for high-quality instruction. My entire career has been spent at AMH, an architecture firm specializing in learning environment design. As I layer in my practitioner experience with my research interest, this study explores educator and designer perceptions as they embark on a process of co-creating new learning environments. Through a case study framework focused on a middle school to be newly designed and built, this study works to deepen our understanding of how the design process functions as a catalyst for change in learning organizations, particularly as it relates to the use of a belief-based visioning process. I will explore the importance of a shared vision amongst certified teachers being established early in the design process and how that vision for learning is communicated to the design team as the new middle school is collectively created. In doing so, I am hopeful this work can help develop a more purposeful connection between the fields of education and architecture during the co-creation process and after the new school opens for students and staff. By creating a more purposeful process of connecting professionals with varied areas of expertise, this exploration creates the opportunity to inform and shape future work between designers and educators in the creation of new learning environments.

Rationale

Through the architectural design process, the fields of education and architecture are brought together to create learning spaces. The backgrounds of these two areas of expertise differ substantially, requiring purposeful effort from both sides to create connections and a genuine understanding of shared ideas and goals. Researchers have brought attention to the concept of participatory design, where those who will be impacted by the design of an object or experience are involved in creating and implementing ideas (Björgvinsson, Bjögvinsson, Ehn, & Hillgren, 2012; Spinuzzi, 2005). Furthering this participatory concept, terms like co-creation and co-design also present a process of collective creativity where the diverse backgrounds of participants are leveraged for mutual benefit (Holmlid, Mattelmäki, Visser, & Vaajakallio, 2015; Jung-Joo, Jaatinen, Salmi, Mattelmäki, Smeds, & Holopainen, 2018; Prahalad & Ramaswamy, 2004a; Sanders & Stappers, 2008). A successful co-creation approach acknowledges the gap in common backgrounds and works to bring out the best ideas from each stakeholder involved in the creative process. The designer is no longer the sole expert. Instead, the individuals who will use the designed product or space are guided to share their ideas, experiences, and future vision.

The literature on the interplay of the subjects of architecture and the learning experience mostly exists in post-occupancy evaluations that focus on how environments have affected learning outcomes (Marx, Fuhrer, & Hartig, 1999; Scott-Webber, Strickland, & Kapitula, 2013). Studies such as these emphasize the effects of space rather than a proactive approach of leveraging educators' and designers' expertise to support impactful learning experiences. This research lens typically does not extend into the influence of space change on the successful implementation of new ideas and continued execution over time. Woolner, Thomas and Tiplady (2018) are a select few who speak to the potential of physical change impacting school culture

and structural changes via a systematic approach to staffing, scheduling, and curriculum. School culture describes the underlying pattern of values, beliefs, and ideals that have been jointly shaped over time to influence thoughts and activities in an organization (Deal & Peterson, 1990). The development of this underlying belief system does not happen by accident. Instead, it is through the hard work of purposeful communities of educators that happens in environments with physical symbols to reinforce their efforts and messaging, which results in success (Deal, 2016; Gislason, 2010; Goodwin, Cameron, & Hein, 2016). Educators in these purposeful communities bring diverse perspectives on learning experiences, yet as they connect with designers to create new learning environments, differences in backgrounds and expertise may present challenges in communication and developing broader understandings during the design process.

The communication between designers and product end users, in this case educators, has been investigated in the literature but focused on fields beyond education. Pattern languages have been used by designers to present simple spatial awareness concepts and connect to future users (Alexander, 1977; Erickson, 2000) to create shared understanding. Yet, minimal work exists extending pattern languages to learning experiences (Knutsson & Ramberg, 2018; Mor & Winters, 2008), and existing literature lacks a purposeful connection to physical space. Thornburg (2014) connects learning and space through common vocabulary; however, his work focuses mostly on group sizes, not necessarily on the learning process and how it translates to experiences. With a purposeful connection to a collaborative design process, a focus on positive school culture, and a shared understanding of parties involved, the stage can be set for successful organizational change through design of new learning spaces.

Organizational change is a multi-dimensional process that begins with a mindset on continual learning (Senge, 1990, 2000) and is built on a shared vision. The vision should be jointly formed by exploring the unique perspectives from individuals who will support the common cause each day (Fullan, 2007; Goodwin et al., 2016; Kouzes, 2003; Lambert, 1998; Senge, 1990). No longer is leading the responsibility of the principal solely. Influential building-level leaders encourage teaching staff to form communities of practice through professional learning communities (Fullan, 2007; Gruenert, 2017; Lambert, 1998; Wenger, 2010). In these communities of practice, the past experiences and schemata of individuals working together will differ significantly, providing an internal lens through which change will be evaluated and processed (Bartunek & Moch, 1987; Marris, 1974; Zimmerman, 2006). By recognizing that each participant will experience the magnitude of change differently and will need to make personal meaning of the impending change, leaders can work to foster a sense of trust amongst the group, taking an inquiry-based approach and working with a spirit of transparency and collaboration (Chenoweth & Everhart, 2013; Fullan, 2007; Lambert, 1998; Zimmerman, 2006). A focus on clarity throughout the process must be relentless as the shared vision is referenced in both overall planning and conversations on daily implementation (Fullan, 2007; Kotter, 2007). Finally, change, no matter the magnitude, represents a loss as a known scenario shifts to a future full of unknowns. Providing space for those involved in the change process to grieve what will be lost and make new meaning for their future is essential for success (Bailey & Raelin, 2015; Marris, 1974).

Creating new learning environments is only one example of a change process in schools that brings together the unique ideas of individuals with varying backgrounds and expertise, working to explore and implement a common understanding. With a constructionist view of

collective creativity and a purposeful approach toward building an understanding of the learning experience educators envision, the relationship between designers and educators can be leveraged to impact change throughout the learning organization. In summary, while research reveals the importance of quality communication in the co-creation process — along with the importance of school culture, high-quality learning environments, and change leadership in educational settings — this research works to bridge the fields of architectural design and educational leadership by deepening our understanding of how the design process unfolds at the intersection of those areas of scholarship and practice.

Research Purpose and Questions

The purpose of this study is to evaluate a belief-based visioning effort during the co-creation of new learning environments in a middle school design process as perceived by its stakeholders, particularly concerning such effort in relation to leading change. The research questions guiding this qualitative study include:

1. How do middle school certified teachers, building-level administrators and designers make sense of a belief-based visioning process while co-creating new learning environments as they consider future classroom teaching and future design project facilitation?
2. How do school district administrators perceive the creation of new learning environments as part of an opportunity to influence organizational change?

Operational Definitions

1. *Balanced Leadership* – Summarized from *Balanced Leadership for Powerful Learning* (Goodwin et al., 2016), Balanced Leadership is a framework for thinking about leadership responsibilities in schools and the need for both stabilizing and destabilizing

leadership styles, which is inherently connected to leading ongoing change and improvement in schools. The work focuses on strong school cultures implemented through purposeful communities.

2. *Learning Belief Statements* – These written statements are an outward expression of the empowering ideas and driving forces behind the educational experience. These statements were created in an interactive session with certified teachers and building administrators, and they were leveraged during the co-creation process to design a new middle school, with opportunity for teaching staff to continue implementation once the project is complete (see Appendix J).
3. *Co-Creation* – As defined by Sanders and Stappers (2008), co-creation refers to "any act of collective creativity, i.e. creativity that is shared by two or more people" (p. 6). For this study, co-creation will represent a collective approach between educators and designers before and during the design process of new learning environments, as well as the extension of the work of educators in purposeful communities as new spaces are leveraged for learning.
4. *Co-Design* – A creative process where designers lead others who have not been trained in the same design process through an effort of exploration and understanding (Sanders & Stappers, 2008, p. 6).
5. *Co-Creation Team* – A team of 10 educators participating in the co-creation process, which includes certified teachers, building-level administrators and school district administrators, as well as six architectural designers who both participate in and lead the process.

6. *Designer* – A broad descriptor of the architect, interior architect or interior designer involved in creating physical space.
7. *Design Process* – A series of steps facilitated by someone in the architecture industry to envision and document a physical space.
8. *District Guidance Team* – A team of 16 district administrators, building administrators and facilities, and operation staff who met before the co-creation process began, providing priorities of facility approach to support the district-wide vision for learning.
9. *Educator* – A broad descriptor of certified teachers, building leaders, and district leaders in public school districts.
10. *Learning Environment* – For this study, the learning environment represents the physical space in which learning happens.
11. *Learning Experience* – For this study, the learning experience represents the actions and interactions of students in educational settings, both individually and in groups. It is intended to envelop both a physical representation of the learning process and the associated feelings of the participant.
12. *Organizational Change* – A shift in the mindsets, processes or programs within an organization from current reality to a newly defined reality. From an educational perspective, Fullan (2007) describes change as "a process that shapes and reshapes good ideas as it builds capacity and ownership" (p. 46).
13. *Participatory Design* – A design process that incorporates those affected by the design in creation and implementation efforts (Björgvinsson et al., 2012; Spinuzzi, 2005).
14. *Post-Occupancy* – From a practitioner's perspective, post-occupancy is the period of time when the building users inhabit the finished space after construction is complete.

15. *Purposeful Communities* – A term used by Goodwin et al. (2016), meaning a team of people with a strong culture built on supporting professional growth while challenging individuals to improve their practices working together to make positive change. The authors identify four characteristics of a purposeful community:
    a. Purpose and outcomes that matter for all
    b. A shared commitment to consistency and agreed upon processes
    c. Focusing resources appropriately and building on strengths
    d. Collective efficacy across the group
16. *School Culture* – The underlying pattern of values, beliefs, and ideals that have been jointly shaped over time to influence thoughts and activities in an organization (Deal & Peterson, 1990).
17. *Vision* – An inspirational and multi-dimensional view of the future that elicits a purpose-driven response by participants to achieve meaningful results for all members of the learning organization (Kurland, Peretz, & Hertz-Lazarowitz, 2010; Ylimaki, 2006).

Theoretical Perspectives

Based on a foundational belief in constructionism (Crotty, 1998), this study is informed by the theoretical lens of co-creation (Sanders & Stappers, 2008) paired with change theory, as discussed by Goodwin et al. (2016). This research embraces my practitioner's perspective of creating new learning environments alongside educators, while merging those experiences with a scholarly constructionist view of the design process and the added layer of leading change in schools. These diverse perspectives are critical for both the research design and my approach to data collection and analysis.

With an epistemological view of constructionism, particularly from a social standpoint, this study is founded on the belief that knowledge is formed together as participants engage with the world (Crotty, 1998). Social constructionism is reinforced through a design process centered on co-creation, a core component of this study that leverages the unique expertise of all involved (Jung-Joo et al., 2018; Sanders & Stappers, 2008). Through formal training efforts and professional practice experiences, designers form a socially constructed understanding of the world relative to their design expertise. Similarly, educators also have formal training and professional practice experiences; however, their socially constructed understanding comes from a completely different area of expertise. Through the design process, these two fields bring their uniquely formed views together to construct new meaning. The variation in previous experiences and understandings means that co-creation leverages the situative perspectives brought to the process. A situative perspective acknowledges participation in existing social and cultural systems or within contexts that influence the participants' personal beliefs and behaviors (Greeno, 1998; Turner & Nolen, 2015). Although all members of the co-creation team did not actively participate to the same extent nor at the same time, the interactions and explored content was a learning experience for all involved. I approached both data collection and analysis with an openness to the variety of perspectives involved, which individually brought knowledge and jointly co-constructed new understandings together.

The hard work of creating new learning spaces and experiences does not stop at the end of the project design and construction; the concept of co-creation continues through change processes as users work to adapt to their new environments. By including Goodwin, Cameron, and Hein's (2016) *Balanced Leadership* framework for looking at change in schools as part of my theoretical framework, I hope to position this study as an ongoing conversation about

implementing ideas uncovered during the research process. Multiple components of change processes will be covered in the forthcoming literature review; however, positioning change theory through an educational leadership lens is critical for this particular study. Specifically, *Balanced Leadership* is chosen for this study because it outlines a framework for leading change by building strong school cultures through collaborative development of purposeful communities. This three-part approach focuses on clarity that includes establishing a shared vision, learning how to manage changes of varying magnitudes, and creating purposeful communities for long-term impact (Goodwin et al., 2016). Additionally, the combination of co-creation and a *Balanced Leadership* lens of change theory is a practitioner-friendly approach to evaluating this study with a constructionist view, which is an important consideration as we work to bridge theory and research with praxis.

Methodology

This research was conducted as a qualitative participatory evaluative case study (Stephen, 2003) focused on a singular case, bounded by a select portion of a collaborative design process for the new Oakwood Middle School (Oakwood MS), located in the Shady Bend School District. Within this process, the aim was to explore the perceptions of educators and designers in the experience of co-creating new learning environments. This middle school project was selected for study due to the extent f the design project, as well as the opportunity for timely data collection and the supportive mindset of the district leadership. Research Question No. 1 was best explored through a brand-new learning environment that was being designed as opposed to an existing facility that would be expanded or renovated. This allowed for the exploration of ideas that could influence learning over time in this new facility and fit into a project design schedule effectively. In contrast, an addition or renovation project likely would carry too many

preconceived ideas about what learning looks and feels like in that particular facility, as well as an established culture that would continue forward. It was critical to select a project with an adequate design schedule that would allow for time to explore the belief-based visioning tool, which was a new process for the AMH team to integrate into their typical approach. The project selected was scheduled to begin in January 2021, when certified teachers were back in school after winter break, and it had a lengthy design schedule already planned between AMH and Shady Bend, creating a natural alignment with this study. Having district leadership supportive of the involvement of the entire certified teaching staff also was important. As teacher contract time is precious, leadership's support of a disruption to their daily routine likely would result in a more favorable response from teachers as opposed to simply being an extra ask from the design team.

Qualitative research is particularly applicable to this study because of my desire to center on the human experience and resulting meanings formed in a natural setting (Bhattacharya, 2017; Creswell, 2018; Merriam, 1998). Case studies take this qualitative approach to explore real-life, bounded systems (a case) over time through detailed data collection using multiple sources of information (Creswell, 2018). With the goal of evaluating how a belief-based visioning process unfolds within co-creation, an evaluative approach allowed me to take the foundational concepts of researching a bounded case and layered in further consideration for merit and worth from a practitioner's perspective. Stephen (2003) advocates for evaluative case studies when the researcher seeks to assess a particular intervention or tool's effectiveness, not when a researcher seeks to prove cause and effect. Although an evaluative approach aligned well with my research questions, there was a critical element of participation missing based on co-creation as part of my theoretical framework. Because co-creation leverages the expertise of all parties involved,

including participation as part of my methodology was critical to support an overall constructionist mindset of this study. As Cousins and Earl (1992) explain, a participatory approach to evaluation is "applied social research that involves a partnership between trained evaluation personnel and practice-based decision-makers, organization members with program responsibility or people with a vital interest in the program" (p. 399). To extend the co-creation process and learning belief statements beyond the new middle school's design and construction, working alongside the principal as the primary participant was helpful for him to understand the research process and carry forward the findings beyond the extent of this study. Working together, the principal and I started the process to build a purposeful community by including certified teachers, including those who would continue as members of the co-creation team as part of the process. Taking a participatory evaluation approach to my case study, I connected underlying constructionist views of learning to the mindset that purposeful communities can influence organizational change over time. That mindset guided the data collection types and approaches outlined in the following section.

Data Collection

Data for this study was collected through interviews, focus group discussions, documentation, and observations of the design process during regularly scheduled co-creation meetings. In keeping with a qualitative approach and case study design, all four collection methods leverage the researcher as a critical influencer of the instruments (Creswell, 2018). All interviews, focus group discussions and design process observations were digitally recorded in audio and video format via Google Meet. Interviews were conducted using a formal semi-structured approach, incorporating descriptive, specific grand tour, and structural style questions (Bhattacharya, 2017; Spradley, 1979). The interviewees included district administrators, certified

teachers and AMH design team members. Throughout the 13 interviews (see Appendices A-D for the interviewee-group-specific interview guides), space was provided for general discussion to evolve as I explored the research questions outlined. The focus group discussions were approached with this same flexibility while utilizing a discussion guide (see Appendices E-F) to keep the conversation on track during the allotted time (Guest, Namey, & Mitchell, 2013). With data collection occurring as part of a typical co-creation process of designing new learning environments, it allowed for critical moments of observation of dialogue between educators and designers. My participation in this observation process varied in intensity as I explored research Questions No. 1 and No. 2. For research Question No. 1, I was an active participant through my practitioner role, directly facilitating the belief-based visioning activity and participating in early co-creation meetings as the learning belief statements were further explored. For research Question No. 2, my participation was moderate as I occasionally interacted with participants during co-creation meetings (DeWalt, 2011). Throughout the data collection process, my professional experience in design served as a baseline of reference during the process of observation for sensemaking.

Data Analysis

Taking both an inductive and deductive analysis approach, I used a multi-step coding process to evaluate raw data and create chunks of information to explore through several phases (Bhattacharya, 2017). The analysis process began at the onset of data collection. It was both a direct interpretation of information and an aggregation of instances as I continuously looked for clarity across my research questions (Stake, 1995). Using NVivo software to both store and analyze my data, I took a multistep analysis approach. By assigning cases to individuals and including types of roles within the study as variables, I had an opportunity to explore various

situative perspectives of those involved. As outlined by Saldana (2016), I took an in vivo approach to my first-cycle analysis efforts in which direct dialogue was coded to better understand participants' situative perspectives. These codes were collected into common themes and evaluated in both analytic memo writing and mind mapping. Second-cycle coding was created from the overlapping theories explored in the mind maps to support each research question, and crosstab queries were utilized to evaluate the frequency of learning belief statement language used by each role type. Concept maps and diagrams also are leveraged in Chapter 4, along with narrative descriptions. These multiple representation formats support my position as a practitioner in a field, where graphic representation is critical to provide clarity and to provide the reader with multiple formats as they make personal meaning of the information.

Limitations

With awareness of the various limitations I knew were a possibility, I approached my data collection and analysis with a mindset of openness and fluidity to respect my research purpose and questions while identifying how future research might shift in exploration efforts. The design project's completion being connected to a successful bond issue vote in April 2021, created the main limitation potential. Although the co-creation process commenced prior to the bond issue vote, both designer and educator participants came to the process with the knowledge that their hard work of contributing to the design of the new facility might not come to fruition through a finished product if public support of the bond issue did not occur. The data for this research effort was contained in the early phases of design, bounding the case at the end of schematic design; however, that does not indicate the views of the participants were slightly skewed knowing there was a potential for the project to not continue. Fortunately, the district-

wide bond issue successfully passed, and the project will be seen to completion with the new facility opening in August 2023.

The professional experience of the designers assigned to this project from AMH, the architectural design firm facilitating the project, also brought a layer of limitation to the study. Their tenure in working on educational projects, their comfort level with facilitating early phases of co-creation, and their knowledge of the learning process shifted the participants' project experience to some degree. Several of the design team members had not previously led a project through the early phases of design. On one hand, this meant their experiences had not created a regimented way of thinking based on how they had completed past projects. However, a limitation was seen in their ability to know how to leverage different types of tools in unique ways throughout the process, and my support as a practitioner was needed to a higher degree. This resulted in the lines of practitioner and researcher being more heavily blurred as we jointly made sense of the process and outcome of this new visioning tool. As the visioning tool was being implemented, the team needed more support from me in my practitioner role as educational design director within the firm, which is discussed further in an upcoming subjectivities section. Consequently, my participation level within the design project needed to fluidly shift from moderate to active to support the team of designers assigned to the project (Adler, 1987). As I navigated this limitation, it was paramount for me to fully support the project from both my position as a practitioner and a researcher.

Delimitations

Although the limiting factors of the district-wide bond issue and the makeup of the design team were out of my control as a practitioner researcher, there were decisions made to balance success for all involved that impacted some elements of the design and research process. One of

these factors was the inclusion of specific educators on the co-creation team. From a practitioner's perspective, creating a valuable cross-section of roles across this group was imperative in providing various views for consideration during design. However, groups such as these can grow to an unwieldy size, making the typical discussion-based meeting approach challenging to facilitate within the time constraints of each meeting allowing all voices to be heard. Working with the principal and a district administrator, a cross-section of roles was discussed to allow for a group size that would foster conversation. We agreed to no more than 12 people from the school district, which left room for only a few certified teachers to be involved in the full co-creation process. The principal created a method to take applications from interested staff members while also asking those interested to nominate their peers. The democratic approach provided the principal an opportunity to openly share the process and results with the full staff to avoid any issues of perceived favoritism or intentional exclusion. The resulting four staff members provided a limitation to the study because of their specific roles. Three of the four teachers were instructors in specialty curriculum and only one teacher facilitated a core content area. Although the specialty teachers represented unique areas of curriculum for a wider view of learning, I also found their experience areas limited the voices of flexibility in conversations about how space can be leveraged in unique ways. Because these specialty teachers rely heavily on their space to act as an especially specific tool for their instructional delivery, at times their voices outshone the lone view of a flexible approach to how to support learning with space. Splitting the teacher group in equal amounts of core content and specialty learning would have provided a greater opportunity to explore conversations about flexible use of space through the co-creation process. With only four teachers representing the full teaching staff, it limited the representation of "boots-on-the-ground" teacher views. The

inclusion of more teacher voices through an alternative approach to stakeholder meetings could bring different results. To respect the school district staff's available time, however, the typical approach to a co-creation team was taken for this study. It should be noted that more teacher participation than typical for a co-creation project was implemented for the purpose of this study as research Question No. 1 was explored. In the case of many co-creation projects, there is not space allocated for certified teachers to be involved in anything more than update meetings. Their inclusion in this study is in direct alignment with the components of creating a purposeful community (Goodwin et al., 2016) within a school building.

Although my desire with this participatory evaluative case study approach was to understand how educators make sense of a belief-based visioning activity during the co-creation process of designing a new middle school, a possible delimitation can be seen in how the common themes of applicability and usefulness of the tool could translate across various learning levels. This single case was considerably dependent on the unique perceptions of Oakwood MS and Shady Bend administrators and the viewpoints they have formed through their tenure in education, both within the specific school district and beyond. Although the design process they experienced is one that is utilized consistently within the design firm, there is a possibility these individuals experienced joys or frustrations differently than another group might have experienced. Sorting through these unique participants' perceptions while working to deepen my understanding of their experiences was critical during data analysis.

Possibilities

This study can improve the connection between the fields of education and architecture through a deepening of our collective understanding of the co-creation process while designing new learning environments. Participatory approaches to design are not uncommon, as discussed

in the work of Jung-Joo et al. (2018), and specific to architecture as described by Luck (2018). Woolner, Clark, Hall, Tiplady, Thomas and Wall (2010) also apply concepts of participatory design to learning environments. In all three of these examples, however, the participatory mindset lies solely within the boundaries of the design process. By exploring how a mindset of co-creation can be leveraged before the design process begins, as an entire certified teaching staff creates dynamic visions for learning together, early buy-in across the learning organization can be fostered. This jointly formed vision can light the fire of support as the torch is passed from the full staff to the co-creation team who will work in detail to design new learning environments. The design process for a new school project can take anywhere from six to twelve months to complete. Once construction begins, another fourteen to twenty months can pass as construction occurs, resulting in a nearly two-year gap between the decisions being made early in the process to the first time a teacher utilizes the new space. This gap in time can leave behind fuzzy memories about the specific decisions made and, more importantly, why they were made. By exploring opportunities to establish visions for learning experiences before the design process begins and taking a participatory approach with the principal, there is an opportunity for the learning belief statements to serve two purposes. Learning belief statements can influence physical space design as educators reference these concepts as individual spaces are discussed with designers. Additionally, they can be leveraged as part of continued conversations about learning across the building during the long gap between design and daily use. Purposeful communities (Goodwin et al., 2016) are made up of educators with high expectations for learning that work to leverage everyone's strengths to achieve a jointly created purpose. Knowing that communities of educators can shift each year as individuals leave and join the organization, telling the story of the learning approach can be a means to orient a new team

member. Learning belief statements can become part of this story and act as an essential tool when the new facility opens, refamiliarizes those involved in the co-creation process with the decisions made and the opportunities that now can be leveraged in the physical space. Finally, the exploration of district administrative views on how the co-creation process can influence organizational change may provide an opportunity for designers to be more purposeful in their work. Early efforts before co-creation begins and post-occupancy follow-up from the designer can help school districts ensure that newly created learning environments act as a supportive tool for students and staff while promoting a mindset of growth and change. Although the literature reviewed in Chapter 2 indicates that a small amount of work has occurred to bridge the fields of education and architecture, a vast landscape has not yet been explored through a proactive, process-oriented mindset rather than merely a review of post-occupancy results.

Subjectivities

Recognizing that as a unique individual, I am bringing a litany of personal thoughts and experiences into the research process; therefore, it is critical that I am transparent with my own subjectivities. Ensuring rigor and trustworthiness, a qualitative approach calls for the researcher to actively reflect on the subject positions with whom they enter the research process, discussing the assumptions and beliefs that inform how they make meaning of their practices and data (Bhattacharya, 2017). I come into the research process with more than sixteen years of experience working at AMH, focused solely on projects in the education sector. My professional career has been an evolution throughout these years, shifting from the traditional role of architect leading the design process for nine years to working as a client leader for five years, coordinating teams of designers working together. I have spent the past three years in my current combination of roles, as both an advocate for the connection to learning as an educational design director and

as a partner and business owner. I have a vested interest in creating new learning environments with a co-creation mindset, as this is the approach with which AMH promotes its services. With my experience with design projects, I come to the research process with what I believe to be a typical experience of working through various design phases with educators. My practitioner experience fuels my interest in exploring this potential jumpstart to the design of learning environments. I have watched teams of teachers and administrative staff come to the co-creation experience with varying levels of previous experiences in similar design processes and varying excitement levels for the journey ahead. As the design process is launched with a co-creation team, an initial meeting takes place where designers work to understand components of success from the educators' perspectives and facilitate exploratory conversations about the types of students, staff, and community members for whom the school will be created. Although this discussion is intended to build trust amongst the co-creation team members, it is a crash course for the educators to get to know the designers with whom they will embark on the co-creation journey. From there, decisions are typically made quickly, with only a limited number of meetings available to jointly establish the ideal environments for learning. The designers work to focus on the learning experience as they ask questions about the individuals who will inhabit the various spaces, the types of activities in which they will engage, and the tools and materials needed for support. Despite frequent reminders to the educators involved that they should feel comfortable to focus solely on the learning experiences they hope to create for students instead of the architectural solution, I observed nearly every conversation circle back to the educator providing some sort of explanation about architectural solutions as opposed to the experience of learning. From my role as both a designer and a student focused on educational leadership, I am often surprised at the difficulty educators have in describing the learning experiences of kids.

Bookending the difficulty to center on learning in the early phases of design, it is quite common for a disconnect to be evident once the building is occupied. Teachers are busy working to become settled in their new spaces, and it is relatively easy to revert to a previous — possibly more comfortable — approach to instruction than the new environment for which it was designed around, leaving district administrators frustrated that so many dynamic ideas seem to quickly fall flat. I leaned on these types of past experiences as I collected and analyzed data, and I worked intently to keep an open mind about these participants' unique experiences and this particular case. As an added outcome, I hope to establish a more research-based approach to co-creation to be leveraged as part of future learning environment projects at AMH.

Summary

My sixteen-year career focused on creating new learning environments and working directly with educators is the catalyst to this research effort. I bring a unique set of subjectivities to the study as my roles as a practitioner and as a researcher collide. With a balanced approach to leveraging my experience in the field while maintaining an open mind to participants' data, I look forward to the opportunity to build a better bridge between two fields with vastly different backgrounds and areas of expertise. I presented two research questions to support the purpose of evaluating a belief-based visioning effort during the co-creation of new learning environments in a middle school design process as perceived by its stakeholders, particularly concerning such efforts in relation to leading change. Definitions of terms that are used throughout the study have been provided to aid the reader in making sense of terminology from the perspective of both education and design. Positioning my qualitative work through a theoretical lens of co-creation and *Balanced Leadership*, I have explored the participants' unique backgrounds and perspectives as they built new knowledge together to make organizational change. Through an evaluative case

study approach, the following chapters consider educators' perceptions during the process to co-create a new middle school learning environment and the opportunities to influence organizational change at the building level and district level. Chapter 2, the literature review, provides background and context for this study.

Chapter 2 - Literature Review

In this review of the current literature, I explore the connection between education and architecture to create new learning environments and experiences for students. First, I introduce concepts of a design process, focusing on the various terminology used to describe collaborative creativity. Participatory design, co-creation, and co-design are all included, which share a common theme of a constructionist mindset. Next, I focus on the gap in common understanding between designers and educators. Essential elements of communication are presented, along with consideration for a common language to support dialogue. After which, I cover the connection of architecture and education through space, both through a post-occupancy lens and a pro-active approach toward impacting learning through the design process. School culture is then explored through the combination of symbolic elements and teachers' work in purposeful communities to make a positive impact. Finally, organizational change is presented, including the importance of establishing a vision and leveraging leadership across an entire teaching staff. Furthermore, this includes a discussion about varying magnitudes of change, along with a need for organizational clarity and the opportunity to acknowledge loss during the process. In summary, I will explore the overlapping components and the connection of ideas related to my study.

The need to provide safe, relevant, and inspiring environments for learning comes to the forefront of conversation as more than 56 million children and adults move through public education facilities in the United States each weekday (School Planning and Management, 2019). A significant number of school construction projects are brought to completion each year to support these educational patrons and associated programs. In 2018, more than $98 billion was spent across the United States on education projects, a 9% increase from the prior year (School Planning and Management, 2019). These educational facility construction projects can range

significantly in size and scope. However, as spaces for learning are created through the architectural design process, the fields of education and architecture are united. The backgrounds and areas of designers' and educators' expertise differ substantially, requiring purposeful effort from both sides to create connections and a genuine understanding of shared ideas and goals. The start of the design process is the launch point to a multiyear relationship, during which these two worlds converge as they work to turn new environments for learning from a dream to reality.

The Design Process

Nelson (2012) describes design as a process of composition and connection. In this progression, elements are combined into functional assemblies while acknowledging people's relationships as an essential consideration for how a design comes to fruition. The author speaks to a core social contract between the designer and client, summarizing five potential relationships: designer artist, designer facilitator, designer expert, designer technician and service design. Nelson states there are four unbalanced relationships where either the designer or the client reigns supreme. In the designer artist example, "the designer acts in the same way as an artist, where the need to express one's own self is at the core of the relationship" (Nelson, 2012, p. 47). Jokingly referred to in the architecture industry as the "star-chitect," these designers are the star of the show, solely using their own judgments to create the solution. Contrasting this is the designer facilitator relationship, in which the designer simply follows the client's requests, who already has a firm idea of what they want to see created. In the designer technician relationship, the designer instead becomes the technical means to accomplish a solution instead of a creative partner. The designer provides the answer to technical questions, as well as the professional licensure needed to obtain approval from governing entities for construction. In a designer expert relationship, the designer takes expertise from previous experiences and

predetermined insights to prescribe the solution that will be adapted for the client. Each of these four relationships represents a significant imbalance between the client and the designer. However, in the fifth type, labeled as a service relationship, both sides are fully and authentically engaged. As Nelson, (2012) explains:

> Design is an inclusive activity, consisting of a composition of formalized roles that center on the idea of service. This integrative principle needs to guide the formation of design teams — creating a complex web of relationships with others who are, in one way or another, a part of the design process. (p. 49)

This authentic engagement in the design process from both client and designer illustrates the opportunity for mutual respect and understanding between the two roles. A balanced relationship opens the door for the concept of collaborative creativity to be fully leveraged.

Researchers have brought attention to the concept of a collective approach to creativity. by leveraging the expertise of two or more diverse backgrounds for mutual benefit. Jung-Joo et al. (2018) analyze 13 co-creation projects spanning multiple design fields to create a framework of vocabulary used to describe jointly created experiences. Woolner et al. (2010) connects this collective mindset to education directly and advocates for participatory design practices to include students and teaching staff, while Vaajakallio and Mattelmäki (2014) include an element of play as they advocate for co-design to be facilitated through design games. The concept's basis remains similar, but the labels and specifics of approach vary across terms that include participatory design, co-design, and co-creation.

Participatory Design

Participatory design originated from efforts to democratically empower workers in Scandinavian countries as new technologies were introduced into the workplace. As

Björgvinsson. et al. (2012) explain, “participatory design started from the simple standpoint that those affected by a design should have a say in the design process” (p. 103). Early approaches to design with a mindset of participation centered on how users would interface with a product, tool or technology. As tools were developed, updated iterations were found impactful to continued progress. With this in mind, participatory design becomes a collaborative approach to both research and design. Spinuzzi (2005) found that researcher-designers work through three stages of participatory design research. Stage one is an initial exploration of the work where designers connect with users to gain empathy and understanding of the people, processes, and tools utilized. Stage two is where users and designers interact most heavily, utilizing discovery processes to clarify goals and outcomes and cooperatively make meaning. Stage three is a collaborative approach between designers and users to iterate multiple versions of new tool prototypes. They test, refine, and present the outcome using common, easy-to-understand language and a user-centered mindset. Participatory design can be found in the practice of various types of architecture (Luck, 2018) and, more specifically, through the work of Woolner (2011) and Woolner et al. (2010) as a critical component of designing educational spaces. Speaking to the opportunity of the participatory approach to influence more than architecture, Woolner (2011) states:

> The impact of participatory design goes beyond altering the attitudes or behaviour of some individuals to affect the culture of the school in the longer term. This suggests how a school community might be able to continue to appreciate a redesigned space (p. 11).

By leveraging this participatory approach, leaders, staff, students, and community can be thoughtful contributors to creating spaces that influence the physical setting and the evolution of the culture of the school, which is discussed in a section below. Elaborating on the mindset of

participation relative to school design but specific to visual tools used to facilitate the process, Woolner et al. (2010) advocate for the use of visual aids to better connect with participants, as they explain how "the use of photographs and maps, together with verbal discussion, avoided relying on literacy skills and confidence, which could be expected to vary quite widely across such a group of participants" (p. 19). Each of these examples represents the unique benefits of participation from a variety of users. However, participatory design is not the only terminology used to convey a collaborative approach to creativity.

Co-Creation and Co-Design

Prahalad and Ramaswamy (2004b) initially leveraged the term co-creation in the scope of business as they spoke to the opportunity for market advantage. Companies should approach consumers with an attitude that the company and the customer jointly create value instead of the company solely trying to please their client. By turning the mindset from a product-centric approach to a jointly created and experience-centric approach, businesses can provide unique, personalized experiences for the consumer as opposed to a one-size-fits-all, single-solution product. Co-creation can be applied to any number of businesses providing a product or service, and many researchers have extended the concept into the realm of design.

In design, co-creation focuses on the joint knowledge development between designers and various stakeholder groups to create a new desired future through various phases of a design process (Holmlid et al., 2015; Jung-Joo et al., 2018). Co-creation in design projects is also referenced in literature as co-design, with the two terms, in some cases, becoming interchangeable. Sanders and Stappers (2008) acknowledge the overlap in terms, referencing co-creation as "any act of collective creativity, i.e. creativity that is shared by two or more people"

(p. 6), which can be taken as a broad description. They then suggest a more detailed approach through the term co-design.

> By co-design we indicate collective creativity as it is applied across the whole span of a design process, as was intended by the name of this journal. Thus, co-design is a specific instance of co-creation. Co-design refers, for some people, to the collective creativity of collaborating designers. We use co-design in a broader sense to refer to the creativity of designers and people not trained in design working together in the design development process. (Sanders & Stappers, 2008, p. 6)

A successful co-design approach acknowledges the gaps in common backgrounds and works to evoke the best ideas from each stakeholder involved in a creative process. The designer is no longer the sole expert in the design process. Instead, the designer guides the user to share their ideas, experiences, and future vision through a process in which the designer takes the lead in helping those without design experience move through ideation, exploration, and mutual understanding.

A shift in the design approach is an underlying theme in concepts of collective creativity. Rather than designing basic categories of products, designers focus on supporting people's purposes through their work. These purposes might center on personal or societal needs, such as interaction, wellbeing, work conditions, or services (Jung-Joo et al., 2018). In connection with this particular research, this design approach can encompass learning as well. No matter which of the three terms is applied, the product or building user is no longer the passive object of study but is instead an active participant in the design process. They are supported in efforts to be closely involved in the steps to achieve their purpose through design.

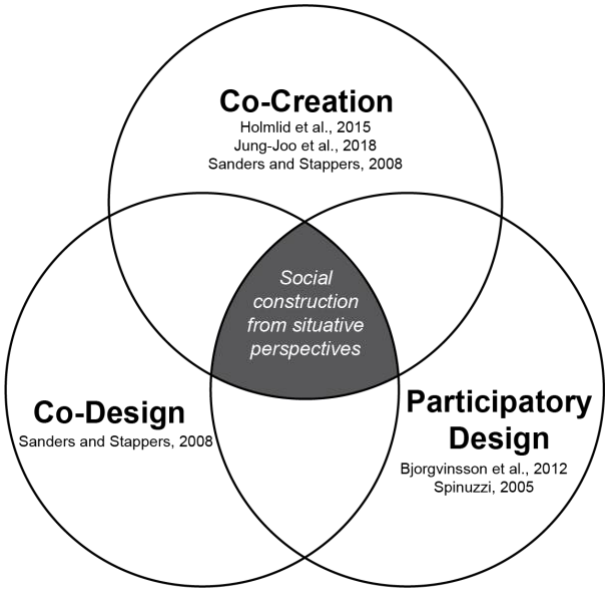
A collective view of these three frameworks shows the foundational similarities lie in leveraging a constructionist mindset (see Figure 1) to create knowledge and solutions together in a social-based process. Participatory design has evolved into concepts of co-creation and, in a more detailed sense, co-design. Although the terms can be interchangeable, as Sanders and Stappers (2008) discussed, co-design can be viewed as impacting the aesthetic or physical solution that has been created specific to phases of the design process. By removing the term design and using co-creation in a broader sense, space is made for ideation and collective creativity of the user experience before, during, and after the design process is experienced. In hopes of promoting the continued creation of positive and purposeful user experiences beyond design and into the project's implementation, the term co-creation is used in this study to represent a collective approach between educators and designers. This term will be used to describe the work before and during the design process of new learning environments, as well as the extension of the work of educators in purposeful communities as new spaces are leveraged for learning.

Situative Perspectives

As participants come together in the design process, sharing their unique expertise under the umbrella of a constructionist mindset, their past experiences and present views are shared for the project's benefit. This concept can be seen through the theoretical lens of a situative perspective (Sawyer & Greeno, 2009). Situative perspective presents a framework that acknowledges that participation in social and cultural systems or contexts influences individuals' beliefs and behaviors and will provide each individual with their foundational views of the world (Greeno, 1998; Turner & Nolen, 2015).

Figure 1

Co-Creation Framework Model



Note. This diagram represents the overlapping element of social constructionism from situative perspectives that co-design, co-creation and participatory design share.

With this inclusion of social connection, a constructionist approach to knowledge formation is supported as cognition extends beyond the individual's local context and into others' global context (Crotty, 1998). The global context still includes individuals; however, their potential has evolved into connecting with one another and their environment in a multifaceted system. As Sawyer & Greeno (2009) describe, "situative perspective conceptualizes knowledge as distributed across people and artifacts, and the focus is on understanding activity and changes in activity systems in which knowledge is contributed and used in joint actions by the people and other resources that participate collaboratively" (p. 348). Learning no longer stands alone. It is transformed into a joint venture shaped by the perspectives of those who create the system together. As this study focuses on creating spaces for learning, understanding this process of joint learning and multifaceted perspectives is an essential layer of consideration.

Knowing that each person comes to an experience with differing backgrounds and levels of previous knowledge about a particular topic, Lave (1991) presents the concept of situated learning through legitimate peripheral participation. This concept positions peripherality to indicate there are many ways to be involved in a community of learners, emphasizing that knowledge builds from varying perspectives. Leveraging the unique knowledge and ideas from other learners during a social process, the result might be different from the intended outcome as new concepts are formed together. Sawyer & Greeno (2009) further elaborate as they explain how "all socially organized activities provide opportunities for learning to occur, including learning that is different from what a teacher or designer might wish" (p. 353). These surprise learning opportunities might arise from the specific expertise uncovered during conversation and exploration of concepts. Clancey (2009) shares that situated cognition is not a view of final, objective facts, but instead focused on several components. Clancey emphasizes how knowledge is dynamically constructed in conceptual ways and articulated with social context, but it varies based on unique areas of expertise and is socially reproduced as information is shared with others on their knowledge formation journey. Finally, it is "transformed by individuals and groups in processes of assimilation that are inevitably adapted and interpreted from unique perspectives" (Clancey, 2009, p. 17). As the co-creation process unfolds, each participant is personally experiencing moments of teaching as they share their unique perspectives and expertise, as well as moments of learning from hearing others' views, thus constructing new meaning from their discoveries. Their participation can vary in intensity, but they are still members of the community embarking on the design process together.

The concepts of situated cognition and learning emphasize the unique perspectives each participant brings to the social process of interaction and knowledge formation. The views they

come with might not be the views they hold when an interaction concludes. Instead, they leverage past experiences and new information to chart a new course. By approaching my research with this framework, I considered participants' personal histories and beliefs, then explored how a process of co-creation might adjust their existing views or form new views through their experiences with others. As participants come together to embark on the co-creation journey, it is critical not only to recognize that their unique perspectives are leveraged for collective creativity, but also to understand how existing literature discusses opportunities to link differing expertise areas, supporting the focus on education and architecture in this study.

Linking Unique Expertise

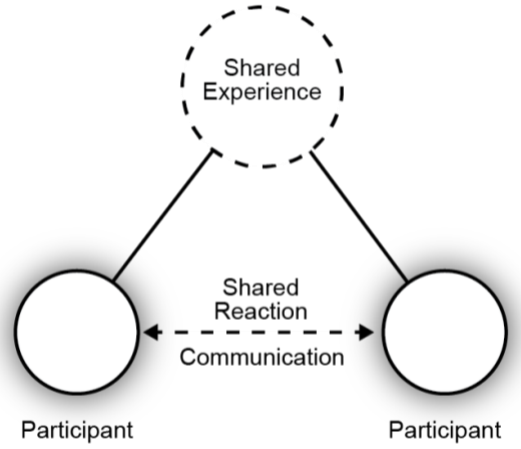
As visions are created or communicated during the early phases of the co-creation process, challenges can arise as educators and designers work together to find a commonly understood vocabulary and express mutually understood ideas. Participant groups in the co-creation process can vary in areas of expertise. Each person comes to the table with specific backgrounds and areas of interest and differing levels of participation. Designers bring a background of the design process to the table and have been trained in the necessary tools and resources needed to facilitate the experience with others. Educators can come with little to no experience of participating in a similar process. This gap, outside of the realm of education, is referred to as "the design divide" (Mor & Winters, 2008, p. 2), where one group has expertise in specific resources and tools, and one does not. Communication becomes vital as these two distinct groups navigate the design process of jointly creating new learning environments.

Communication occurs in several forms, both verbal and non-verbal, and it places people in a shared situation where actions and thoughts are modified because of that interaction (Wahlström, 2010). As individuals come together, personal viewpoints are shared, and a mutual

understanding is often the goal. Building this new joint knowledge requires an understanding of how knowledge is formed. Davidson (2001) suggests that objective knowledge is built from three distinct views: the views of both participants as individuals and the view they form together from their shared experience, all dependent on their experiences with the world but accessed differently. Represented in Figure 2, this model takes the shape of a triangle, where the bottom two corners are each a participant, connected by a baseline. The third point at the top is the object or experience the two individuals observe. Each person reacts to the common point differently, and the sharing of their unique reactions is where communication is established. Access to language and the capacity to communicate bring an opportunity to understand the world around us. However, you cannot communicate without an awareness that you are sharing the world with others who experience similar objects or stimuli and this completes the triangle's baseline.

Figure 2

Building Objective Knowledge



Note. Diagram of building objective knowledge, as explained by Davidson (2001).

In summary, as Davidson (2001) describes, objective knowledge requires a subjective view of one's thoughts and inter-subjectivity and a view of others' thoughts. Davidson (2001)

said, “What is certain is that the clarity and effectiveness of our concepts grows with the growth of our understanding of others. There are no definite limits to how far dialogue can or will take us” (p. 219). Communication to build knowledge and understanding in the design process is essential as a community of minds takes shape. As participants navigate the design process, a successful experience rooted in communication will reach beyond mere discussion. It will incorporate the exploration of presentations, disagreements, compromises, and agreed-upon refinements, all among many people with varying involvement in the design process (Erickson, 2000). The literature regarding efforts to connect the language between designers and educators is explored in the next section.

Common Language

The communication between designers and building users has been investigated in literature focused on fields outside of education. Through various methods, authors work to identify ways to bring a common understanding of the process of design. An example is through the work of Alexander (1977), where he democratized design and gave people autonomy in impacting environments in which they live through pattern language development. The 253 patterns presented blend together architecture, urban design, and community livability. Each pattern works to describe a specific need or solve a specific problem repeated in successful buildings. The scale of these patterns varies from macro examples from regions, cities, and neighborhoods to micro variations, including furniture and fixtures. A formalized approach for each pattern includes a pattern statement, a problem statement, and consistent elements like a title, problem, context, discussion, and solution. Developed by an architect, the patterns focus primarily on the physical environment. However, because people and environments are difficult to separate in some circumstances, they do acknowledge a consideration of human interaction.

Each principle focuses on one element of design, but together form an adaptable language. As Erickson (2000) describes, “Alexander’s pattern language is actually a meta-language. Both the language and individual patterns are malleable and are used to generate site-specific pattern languages for particular projects” (p. 361). Developing a pattern language for specific projects through a lingua franca — a common language — is a focus of Erickson (2000), who references Alexander’s (1977) work. He calls for a common ground to be established between designers and stakeholders, providing a level playing field in the design process. Accessible to all participants, a lingua franca goes beyond mere vocabulary to include the conceptual frameworks used in the design process. Reflecting on an article by a community designer (Hester, 1993), Erickson shares an example of how a common language endured within a community. Hester partnered with the town of Manteo, North Carolina, to devise a plan for economic revival. The designer began by identifying what residents valued about their community, then turned to a behavior mapping exercise intended to verify if the solicited verbal information matched residents’ physical behavior. He then generated a list of important places that were codified in a map, enabling community members to see a collection of their values connected to places called sacred structures. This sacred structure map became a part of the community vocabulary, acting as a measuring rod and negotiating tool as future development decisions were made. Returning seven years after the initial design, the author found that the sacred map’s community knowledge persisted through both leadership and citizens at-large. Referencing the sacred structure of Manteo as a self-sustaining system, Erickson (2000) shares, “it gained its power because people had shared understandings and values, and because they knew that their understandings and values were shared by the community” (p. 360). This work demonstrates the power of a common understanding when it is rooted in jointly constructed values. According to Erickson, an

expression of values is only one attribute that makes Alexander's pattern language work applicable to generating a project-specific lingua franca. Furthermore, he explains, "By expressing patterns in terms of concrete prototypes they become more accessible to the diverse audiences who will ideally participate in the design process" (Erickson, 2000, p. 367). Other attributes include tangible prototypes rather than an abstract principle, a focus on the interactions of people and space, and the ability to evolve and add to the patterns over time.

The concept of pattern languages has briefly extended into education in existing literature, although separate from learning environments. Mor and Winters (2008) acknowledge pattern languages as a tool to deliver design expertise to the layperson. They take a slightly different stance than Alexander's pattern language, sharing that pattern language development should be a community endeavor. Case studies were utilized as the project sought to facilitate a communal sharing of design knowledge focused on mathematical learning games. Translating initial efforts to a larger scale, the authors developed participatory pattern elicitation workshops at five international conferences. Practitioners, designers, and researchers discussed case studies and determined resulting patterns. However, their effort to mine community-created patterns was challenging because participants had only 90 minutes together. Future efforts would need to be prolonged exercises to build shared understanding amongst participants. This extended time could allow for an exploration of the time needed to leverage community-created patterns for success.

Knutsson and Ramberg (2018) also extended the concept of pattern languages to education, exploring how the decisions grounded in individual teaching experience are examples of design decisions. A participatory design process lasting nearly 18 months defined problems surrounding teaching practices, learning practices, and technology. The authors' determined

pattern languages would be appropriate since problems identified would be recurring and accompanying solutions would be presented. Beginning with a workshop to define problems teachers commonly experienced, a series of six consecutive workshops followed. The first five workshops introduced the concept of patterns, then developed and refined the patterns unique to the challenge. The sixth workshop allowed the participating teachers to present the pattern approach to the entire school faculty. The process demonstrated that through various design and reflection tools, the participants could use sketching and narration techniques to inspect and question ideas, evaluate their understanding of the challenge, and select mutually appropriate language. The authors recognized the demanding nature and length of the process and that the patterns could be a continuously evolving set of problems and solutions. They also indicated the need to gauge success based on how the concept of a pattern language influences the larger teacher group's practices, not simply the study participants. Both Mor and Winters (2008) and Knutsson and Ramberg (2018) worked to apply pattern languages to learning developed through a participatory approach but did not include the connection to physical space.

Connecting Learning to Physical Space

Although the degree of involvement of educators in the design of new learning environments may vary across different roles, the process of navigating a shared understanding about learning during that effort can be lengthy (Woolner, Clark, Laing, Thomas, & Tiplady, 2012a). Limited work has been done to create this shared understanding between educators and designers, resulting in a lack of existing literature. Some current work focuses on describing places for learning, but not on purposeful work in understanding the actions and experiences of the learning process in tandem with supportive environments. Working to communicate some of the fundamental consistencies of the learning experience, Thornburg (2014) established four

primordial learning metaphors: Campfire, cave space, watering hole, and life. These metaphors represent the recurring ways humans have learned from the beginning of time. The campfire represents gathering around to learn from the stories of others. It is not necessarily around an actual campfire in today's format, but instead is the traditional classroom lecture format of instructing students. Gatherings are typically in a large group where the campfire mode is typically learning from the expert. Watering holes represent learning from peers. Watering holes are the informal learning interactions that occur in small groups where ideas take shape. In tandem, campfires for large group instruction paired with breakout groups of watering hole discussion and ideation are most effective. The group sizes continue to decrease with cave spaces, the concept of learning from oneself through reflection and looking inward. Often, this is when learners realize they do not understand a concept and need to return to a watering hole experience for additional assistance. Finally, life is the metaphor that brings the first three experiences into action. It is the chance to apply learning in practice and see results in real-time. The author also discussed the incorporation of technology into each of the four metaphors to enhance learning. These examples of the unique ways humans come together to share and receive information can be leveraged as a communication tool to explore how space can support learning. It mostly provides a means to discuss group sizes during learning, however, not necessarily the learning process and how it translates into experiences.

Emphasizing the importance of a participatory approach in design, Sanoff (2001) advocates for the inclusion of design tools to increase an understanding of how environments can support learning. Describing an exploratory method of Relating Objectives for Learning to Education (ROLE), participants are encouraged to explore various teaching and learning opportunities within a space. Sanoff (2001) explains:

> Before planning and designing appropriate environments for students, the objectives for that environment must be discussed, considered, and decided upon by the teachers, administrators, and students. The relationship between the activities in which students engage, the places that accommodate those activities, and their relationship to the objectives, is the basis for designing. (p. 21)

The ROLE method includes the educator choosing an important statement from a pre-prepared list of six objectives and matching them with a photograph of school settings to satisfy the desired intentions. This process primarily centers on the desire to have educators describe appropriate learning settings but omit many facets of the learning experience.

Each example from the literature reviewed demonstrates a desire to connect parties with different backgrounds as they come together to communicate and ideate. Erickson (2000, p. 366) addresses typical dialogue via the English language lacking the clarity to connect those with different disciplines and expertise saying:

> Even if the design team has a single conceptual framework that they apply, the users are at a great disadvantage: they are confronted with designers speaking a language that—though full of words everyone understands—refers to concepts, methods, values and assumptions that arise discipline or profession rather than from the users' daily lives. (p. 366)

Erickson's focus is on the gap of the user understanding components of the design process. However, when viewed through the lens of education, one could consider this focus in both directions: the educator's lack of understanding of the design process and resulting opportunities and the designer's lack of understanding of the teaching and learning process and resulting student experience opportunities. When the focus is equally considered, a mutual understanding

and common language can become the basis of understanding for all parties involved. Elements of common understanding and acknowledging that different areas of expertise can bring a difference in language to the table during co-creation are imperative to this study. A consistent language created by teaching staff will be explored during the use of the learning belief statements and used as part of the dialogue with the designers leading the co-creation team through the process to create the new middle school. Now, I will present the literature on various ways architecture and education have been connected previously.

The Connection of Architectural Design and the Learning Experience

The connection between architecture and the learning experience is undoubtedly present in literature. However, it is typically positioned in the realm of post-occupancy evaluations that work to connect logistical design elements to impacted learning outcomes (Marx et al., 1999; Scott-Webber et al., 2013). Some of the first explorations of this connection occurred as World War II came to a close in 1945. Loris Malaguzzi, an Italian educator, worked with parents in Reggio Emilia, Italy, to reimagine the concept of early childhood education, thus the Reggio Emilia approach to education was born. Malaguzzi's perspective was a pedagogy of listening and relationships where educators believe children are capable and powerful rather than unskilled and passive. In this practice, learning is communal as both the teacher and the child explore and investigate through speculation, project-based learning, and discussion (Edwards, Gandini, & Forman, 2011; Krechevsky & Harvard Project Zero, 2013). Environments for learning were a key contributor to the concepts of Reggio-based learning seen more than 75 years ago. Malaguzzi found there to be three distinct positions of the teacher. The parent is the first teacher. Acting as an active partner and guide, the classroom teacher enters the second position, where they take on the researcher's role and actively learn with the student. Finally, as the third teacher,

a flexible physical environment supports both the student's and teacher's learning, encouraging the concept of joint knowledge creation (Biermeier, 2015). Researchers have continued to explore the learning concepts Reggio Emilia inspired to understand how space can influence the learning experience. Strong-Wilson and Ellis (2007) present literature supporting the physical learning environment as a tool to bring excitement, curiosity, and autonomy to children in school settings as they forge their adventurous path of knowledge creation. Although the importance of physical spaces for developing the learning experience is mentioned in existing literature referenced above, greater emphasis is placed on studies to determine physical environments' effect on learning outcomes.

Post-Occupancy Research: Identifying Learning Outcomes After Design is Complete

Both qualitative and quantitative research exists about how space has influenced students' learning outcomes. Through a quantitative lens, post-occupancy research on student learning outcomes is plentiful, ranging from the impact of mechanical and electrical systems to the most impactful arrangement of classroom furniture and technology. Ronsse and Wang (2010) conducted a study across 14 Midwestern elementary schools in the United States. They found that although achievement scores in math did not seem to be influenced by higher background noise levels from building mechanical systems, student achievement scores in reading comprehension were significantly impacted. They suggest that math learning processes might be more visual, while reading comprehension is more verbally based, resulting in negatively influenced standardized test scores in that area. Woolner and Hall (2010) present a collection of reviewed research that supports noisy conditions having a direct negative impact on learning, specifically in language and reading development. Quantitative studies also have shown the

positive effects of daylight on student performance. A statistical analysis technique utilized in the Capistrano Unified School District in Orange County, California, found that students with the most daylight in classrooms progressed 20% faster on math tests and 26% faster on reading tests across a yearlong study (Lisa, 1999). Built components are not the only spatial elements that can influence student learning outcomes; flexible accessories, such as furniture and technology, should be considered as well.

A study conducted at the University of Minnesota with first-year, first-semester college students leveraged two identical sections of a Principles of Biological Science course to investigate the impact of Active Learning Classrooms on student performance (Brooks, 2011). One section of the course occurred in a traditional classroom outfitted with a whiteboard, projection screen, and student tables facing the room's front. A second section was facilitated in a newly designed Active Learning Classroom featuring large round tables for group work and switchable laptop technology to share information quickly within small groups and with the entire class. Glass markerboards were installed around the room's perimeter, acting as an analog tool to support digital learning. Not only did the students in the Active Learning Classroom outscore predicted expectations based on their ACT scores, but they also significantly outperformed their peers who experienced a traditional classroom environment. Within this study, students were brought together in new ways through both digital and physical opportunities, demonstrating that students' connection in a learning environment is a powerful concept that encourages interaction and dialogue. By investigating classroom seating arrangements based on children's question-asking in an elementary school classroom, this concept is supported in a younger age group. By analyzing both T-shaped and triangle-shaped action zones for each arrangement, Marx et al. (1999) found that children asked more questions

when seated in a semicircular arrangement rather than in a typical row-and-column arrangement. They explain:

> As the children were randomly assigned to seats with each change in the seating arrangement, the effect of seat location can be seen as independent of pupil characteristics. The mechanisms responsible for these findings are either children's proximity to the teacher, which leads to a higher likelihood of being engaged in the class, or the 'face-to-face' orientation with the teacher, which implies more social control. (p. 260)

As designers and educators consider how specific space design elements can influence student learning, the impact of furniture and technology is an essential consideration for learners of all ages.

Although a post-occupancy approach of analyzing an environment's influence on learning outcomes can demonstrate success, solely looking at quantitative data can come with a risk. Inaccuracy can occur due to the potential inability to successfully isolate necessary variables, often producing mixed and inconclusive results (Clark, 2002). Recognizing that many indirect influences can impact student behavior, which in turn can impact student performance, supports the use of qualitative approaches to shed light on the relationship between physical space and supportive learning. These qualitative methods can explore how both the design process itself and the resulting use of the new learning spaces can influence learning, school culture, and organizational change elements within the school.

Proactively Connecting Physical Environments to Learning Support

Compared to the vast amount of post-occupancy-related research on specific spatial elements influencing learning outcomes, the research on proactively connecting physical

environments to support learning is limited. Clark (2002) calls for future research to take a more holistic approach to the factors that impact achievement, saying, “The physical setting needs to be examined alongside pedagogical, psychological and social variables that act together as a whole to shape the context in which learning takes place” (2002, p. 12). Through a participatory approach, Clark believes this will occur, advocating for a better understanding of student outlooks, developing resources to aid educators in utilizing the built environment as part of the learning experience, and a better understanding by architects of pedagogy and learning requirements. This view directly connects to the research void this study seeks to fill, as learning belief statements can be leveraged through co-creation to build a common understanding of the newly created space and the learning experiences the space will support.

Although the data is more than 25 years old, Moore and Lackney (1994) lean on their positions as architectural professionals to make an early plea to consider how the design of learning environments can influence performance.

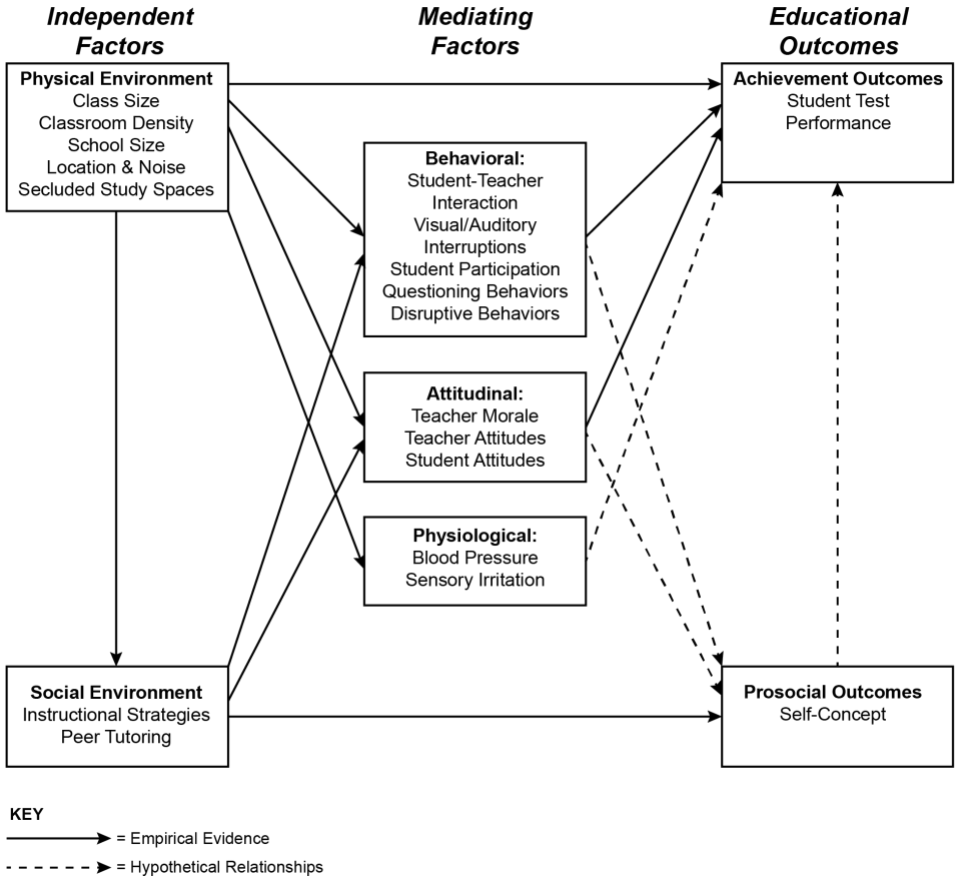
> There is now considerable evidence that certain design characteristics like school size, classroom size, location, and the provision of secluded study spaces all make substantial differences in learning outcomes, and, in particular, that school size and classroom size make a difference in academic achievement. (p. 5)

As a response, the authors propose a holistic model of theoretical relationships (see Figure 3), which aims to interconnect independent factors, mediational factors, and educational outcomes from empirical evidence and hypothesized relationships. Despite the authors’ backgrounds in architecture, the model extends into elements beyond space. Their model provides a succinct representation that consideration for spatial elements, such as school organization, and social environment elements, such as instructional strategies, can be considered to interact and impact

learning outcomes. However, they also share that future research may investigate the complexity of behaviors and attitudes as a consideration layer.

Figure 3

Mediational-Interactional Model of Environmental Factors Affecting Educational Outcomes



Note. A model of theoretical relationships presented by Moore and Lackney (1994, p. 15) to reconceptualize empirical research at the time of publication.

Although this work indicates the social environment is specific to instructional strategies and peer tutoring, it does layer in student attitudes and behavior that, taken as a whole, begin to identify a critical gap in the connection of architecture and education through an emphasis on the learning experience itself.

By including the school's approach to teaching and learning as a consideration, Leiringer and Cardellino (2011) take a critical step in exploring the influence of physical space on learning outcomes. Through a multiple-case study approach, the authors explore four schools in Denmark and Sweden, seeking examples in which building design was developed to support unique educational visions, including approaches to teaching and learning. Using guided tours in combination with formal presentations from teachers and designers, the researchers worked to understand each school's vision, as well as the organization and design. As they report results, they are careful to share contextual details about the school and community, and they provide a three-part narrative describing the physical environment, the use of the completed facility, and the design process. A significant finding from their multi-case evaluation is that the school's visions for learning, along with its core values, can be supported by the design if they are brought to the discussion early and a participatory approach is considered. Leiringer and Cardellino (2011) explain:

> Educationalists charged with producing educational visions and those responsible for the design and realisation of schools would benefit from participation in such discussions, so too would the eventual end-users. Design solutions that do not fit underlying values are unlikely to have a significant positive impact on the delivery of teaching, indeed they might have an entirely opposite effect. (p. 930)

The findings from this research support the importance of visions for learning to be translated into the physical environment through spatial design and the instructional approach as learning experiences are created.

Finally, covering multiple topics in this literature review, the work of Pamela Woolner (2011) and Woolner with various colleagues (Woolner, McCarter, Wall, & Higgins, 2012b;

Woolner et al., 2018) provides the most direct connection to spatial design impacting the learning experience, as well as an added layer of organizational change discussed in this chapter. A participatory approach is consistent in these efforts, as the author recognizes the differing perspectives of educators and designers embarking on a process to create new space and allowing for the practice of teaching and learning to shift. Taking the stance that existing research based on learning environments is an incomplete set of sometimes contradictory parts, Woolner (2011) shares a potential solution through theoretical views of how to create quality learning environments through involvement from a diverse set of user groups. Because a school's design also will impact those leading, supporting and maintaining these learning environments, it key to involve not only staff and student, but also other users. This broad view of user groups means the expertise and experiences brought to the discussion can significantly vary. Woolner (2011) explains how "once this is accepted it becomes necessary to develop methods to facilitate the genuine participation of a range of users, who will have differing skills and confidence, but need to contribute their knowledge and experience to an overall understanding" (p. 13). Through diligent work, the design team should ensure valuable perspectives from the various unique roles involved are leveraged, not only those with backgrounds in teaching and learning. However, even for teachers who spend their days working side-by-side with students, Woolner (2011) argues that participation in the process must be genuine to be impactful saying:

> Big ideas about transforming education do not get discussed at the classroom level, many potential participants, particularly from certain user groups, are not included in the school design process and there are still problems of insubstantial, tokenistic involvement. It is frequently argued that time pressures preclude genuine participation. (p. 16)

This broad consideration for participation in the creation of new learning environments aligns well with my study and the author's work in areas of change have commonalities as well. For example, Woolner, McCarter, Wall and Higgins (2012b) continue the discussion about participatory approaches to the design of learning environments and acknowledge the difficulty of making change through updated space and space to bring change to teaching practices. By exploring two case studies, the authors work to understand the practice-based and theoretical positions of participatory design as an impact on educational change. Case Study No. 1 considered the use of carpeted learning space within the classroom area for students ages 4 to 11. Results demonstrated a disconnect between how teachers viewed the time students spent on the carpet and how the students viewed this time. Teachers saw the experience as a time of interactivity, while students found it to be a passive but physically comfortable time of learning. Research tools that leveraged visual elicitation techniques and verbal connection bridged the gap between the researcher and study participants throughout the process and the findings. In the case of one of the teachers participating in the study, the participatory research process's results compelled the teacher to take the student's response and leverage it as catalyst to change, shifting the way they approached use of their space as a supportive tool for learning. The authors share how a common understanding formed from the views of both adults and children can enable cultural change saying:

> The case study supports the idea that initiatives, imposed top-down, will not easily replace existing teaching methods, with the status quo particularly resistant to change when it is embedded in the organization of the physical setting. Yet there is clearly the suggestion here that an appropriate participatory process may enable educators to think

> differently about the use of space, and for practice to change from the bottom up. (Woolner et al., 2012b, p. 57)

Case Study No. 2 is an expanded lens as it considers a secondary school housing students ages 11 to 16. Staff and students are consulted during early phases of a school rebuild. Similar to the first case study, a participatory approach was taken, using both verbal and visual tools to draw perceptions from both students and staff. As part of second case study, the learning environment was assumed to be mostly inadequate before the research process began; however, during mapping and photograph ranking activities, positive perceptions of the spaces were discovered. Because the research process concluded before the new school was built, the findings were not as straightforward as those from Case Study No. 1. However, the authors saw hope in a change of the participants' perspectives and discussions about potential consideration of organizational issues to consider in the new design.

Through both case studies, success is seen as a participatory approach and is used to foster discussions about the space and the instructional approaches within. As Woolner et al. (2012b) describe:

> It seems likely that a key to enacting sustainable educational change lies in facilitating collaborations and discussions so that changes to space and organization are coupled to changes in teaching and learning practices and based genuinely on the development of shared understandings of all those involved. (p. 57)

The consideration of a participatory approach to bring about sustainable change in the educational experiences across organizations has a critical connection to this study. These opportunities to bring users into the experience of a shifting thought process as to what the learning experience is and where it happens reinforces the ability to influence a school's culture.

As a final and highly relevant connection to this study, Woolner et al. (2018) note a lack of literature regarding how physical space can impact change in school settings. They consider the opportunity for space to be a catalyst for change and acknowledge that sustaining change once spaces are complete is a challenging endeavor. The authors share that "changes to school space can support both initial innovation and sometimes further development of a new approach, helping to institutionalize the change" (Woolner et al., 2018, p. 237) through two unique examples, one at the primary learning level and one at the secondary learning level.

First, Southside Primary School educates children ages 4 to 11 in the northeast area of England. In 2011, Open Futures was launched, a skill and inquiry-based learning program to shift pedagogy and curriculum. The program was a natural catalyst to change, quickly influencing the way space was used and the instructional approach used to deliver content. Two years later, the excitement was still bubbling, and structural changes had occurred as to how space was leveraged, budgets were formed, and staffing was allocated. Individual and cultural changes had occurred as teachers took ownership of the program and learned how to consider and understand the structural changes through professional development.

As a secondary example, Town End Academy in England's northeast area is presented for consideration. More extensive than an average school, two sites make up Town End Academy, one supporting a group of students ages 11 to 14 and the other supporting students ages 14 to 18. Propelled by a hunch that students' poor behavior might stem from a lack of interest in the learning process, a stakeholder group was created to tour exemplary schools across the country using various instructional approaches. They created their own program for implementation, called Inspiring Minds, to introduce a holistic model of learning and mindfulness to students. Curriculum changes were made, and teachers were encouraged to adjust

their physical space to fit the new instructional methods. A shift to project-based learning also was implemented, and efforts were made to support teachers in facilitating this new learning adventure. The authors found that although space was not a driving factor during change, it has limited further growth as teachers struggle to collaborate across subjects due to spatial constraints.

In both the primary and secondary school examples, structural changes, referring to systematic approaches to staffing, scheduling, and pedagogy occurred due to the adjustment of physical spaces. However, the opportunity to extend beyond simple structural changes is evident, as Woolner et al. (2018) further explain:

> The physical space, which could be seen as the most obvious of school structures is the key to moving beyond mere structural change because the physical learning environment is uniquely visible and tangible - a manifestation of a school's values and the teachers' pedagogic approaches, providing for further individual action. (p. 238)

This strong advocation for space to act as a change catalyst and how that change is sustained over time provides a strong connection to this study. By recognizing the essential components of school culture, discussed below, there is a potential for space to spark the fire of change and for that change to become embedded in everyone's mindsets and behaviors within the learning organization.

School Culture

Walking into the doors of a school can be a powerful experience. A combination of factors can instantly create a specific feeling as a newcomer experiences a school environment for the first time. Perhaps there is a lively buzz of excited chatter, engaging examples of student work displayed, or the view of students and staff coming together to explore new ideas. The

opposite also can be true, when a newcomer enters a dim, quiet building where the space seems unwelcoming, and teachers and students work quietly behind closed doors. This instant environmental character, either positive or negative, is the invisible force that results from the organization's culture.

A school organization's culture is the summation of various patterns that seem to permeate everything about that collective group, and this culture takes time to develop and take hold. Through previous experiences and events, culture forms, reflecting the organization's members' basic assumptions, expectations, values, and beliefs. It encompasses the feelings of the individuals as a whole and its traditions and customs as well (Deal, 2016; Deal & Peterson, 1990). As Deal and Peterson (1990) describe, this complex web of a belief system does not develop overnight, and further explain:

> The concept of culture is meant to describe the character of a school as it reflects deep patterns of values, beliefs, and traditions that have been formed over the course of its history. Beneath the conscious awareness of everyday life in any organization there is a stream of thought, sentiment, and activity. (p. 7)

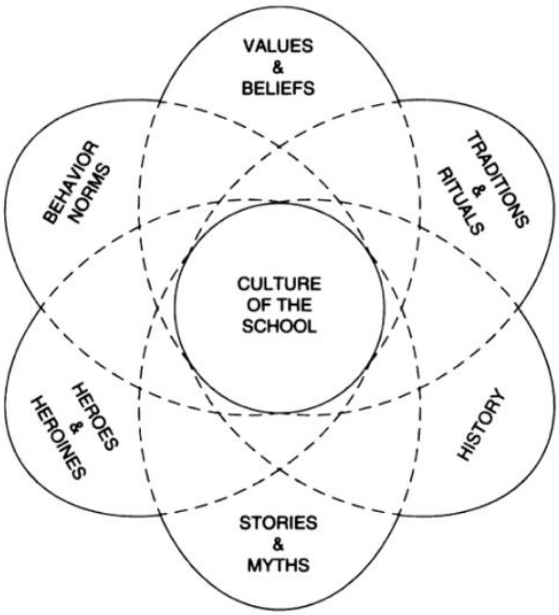
Culture creates a set of unwritten rules and translates into the feeling you get when you walk into a building and interact with the participants inside. This can be considered the school building's personality, and that personality influences the climate, which is the attitude of the building created by the feelings of the inhabitants (Gruenert, 2017). The climate is not all-encompassing but is instead broken down into sub-climates to capture the staff, students or even the community's attitudes. The climate is an indicator of the culture. If the organization's members feel unhappy, stifled or uninspired, it is because of how the culture was established and how it

evolved. With that correlation in mind, a favorable climate can be seen through leadership's hard work to create a positive school culture within a high-performing school.

To better understand the varying number of influences on culture, Owens and Valesky (2007) communicate many components affecting culture through the overlap of symbolic elements (see Figure 4).

Figure 4

Overlapping Symbolic Elements of School Culture



Note. A model of the intersecting and overlapping elements of school culture (Owens & Valesky, 2007, p. 196)

The authors share that culture is affected by the environment's influence on behavior and how these environmental elements relate to one another. These elements become traditions and rituals communicated through stories that are retold to new generations, embodying the group's past members' values and beliefs while simultaneously impacting the behavioral norms of current generations. Heroes and heroines of past and present are the flagbearers for these values and enact the remaining symbolic elements. As Owens & Valesky (2007) describe:

> Anyone hoping to alter the culture of a school must seek to alter the course of the school's history, and the leverage points for that are in the symbolic elements that define and shape the organizational culture of the school. (p. 195)

An excellent example of behavioral norms is the traditional bell schedule of United States secondary schools. This symbol of time allotment and learning structure has dramatically shaped the way schools are experienced, yet it is merely a sound that triggers the concept of movement and organization. Owens and Valesky's culture symbols are demonstrated through the school population's behavior and actions; however, symbolic elements can also be physical manifestations shared throughout the organization.

Physical Symbols

Physical symbols of the school can act as the outward manifestation of intangible cultural values. These symbols become a rallying point for the culture, acting as an expression of the shared sentiment and commitment of an organization or family members. Deal (2016) provides examples of symbolic artifacts that include messaging in the form of social media, websites, banners, displays of student work, historical artifacts, and school mascots. These items can be found in schools with varying quality physical environments, but space itself also acts as a powerful symbol.

The architecture of schools, as well as selection and placement of the furniture and equipment inside, provides an opportunity to influence learning outcomes as previously discussed and can send powerful messages about the culture of the school, which are reinforced through the actions of the organization's members. As Stolp & Smith (1995) explain:

> A school's artifacts are those daily rituals, ceremonies, and icons that are most conspicuous to the casual observer. Students' math papers, rollcall in class, the bell for

> first period, and the smell of a long hallway represent elements of the artifacts level of culture. (p. 36)

The initial "feel" of the school emanates from this tangible level of experience. Thus, people who arrive at the school for the first time are most likely to recognize this level of culture. They might experience it as a mood or feeling, a certain style, or a physical presence.

As school architecture evolves with the way we think about education, a positive culture can be reinforced through the placement of tangible symbols within the space. Deal (2016) shares four significant ways this symbolism of architecture can reinforce culture. First, with an emphasis on a particular space or the relationship of spaces, a school's architecture signals what is important. For example, centrally locating a media center can significantly impact a school culture based on early literacy. Second, by selecting architectural elements that reinforce its population's heritage, a community can be tightly bonded. Third, the building can send a message of purpose and values through the careful arrangement of spaces and thematic representation of what is important to those who inhabit it. Fourth, a well-cared-for building that is safe and updated can forge pride in the school community and community at large.

Work has been done to better understand the impact of designed space on the approach to learning, which can be considered an element of culture. Leiringer and Cardellino (2011) used a multiple-case study approach to investigate how the physical environment can influence a space's intention and use. The authors portrayed each of the four cases through three lenses: Analyzing the physical environment, the facility's use, and the design process itself. Through this investigation, they found that design can support underlying learning intentions and values. However, the school environment matures over time as the complexities of people, ideas and spaces converge. The authors emphasize:

> Design solutions that do not fit underlying values are unlikely to have a significant positive impact on the delivery of teaching, indeed they might have an entirely opposite effect. Similarly, schools that already achieve high quality teaching through traditional modes have few incentives to look into innovative designs that accommodate alternative modes of teaching and learning. (Leiringer & Cardellino, 2011, p. 930)

By recognizing that multiple components create a complex web of the school environment, they make a meaningful statement about the change process that occurs over time. Gislason (2010) supports this complexity and found that the built environment acts as an interrelated element stating that, "the organisation of teaching, scheduling and curriculum should (1) reflect cultural values and assumptions among staff and (2) be congruent with a school's physical design" (p. 131). Woolner's (2011) work again provides overlap with the purposeful connection of school design to influence long-term culture through the experience of participatory design. The effort to engage participants in the design process in a meaningful way, going beyond merely recording details of their daily habits, can allow for the discovery of values and beliefs about learning to foster the most positive culture possible.

Components of a Positive School Culture

Positive school cultures are not the result of happenstance. With leadership's direction and purposeful work, coupled with teacher involvement and community perspectives, they develop over time. Across the literature regarding positive school culture, there is a strong emphasis on a shared vision and associated goals to create unity amongst group members and illuminate a path of purpose. Additional components include a belief that everyone, including students, teachers, and leaders, can succeed in the pursuit of learning. This can-do attitude generates a positive "buzz" and allows for structure within an organization to emphasize high

expectations for academics and behavior. A sense of collective efficacy is essential, where staff works together to solve problems and puts kids at the center of decisions. When kids are at the center of decisions at all levels, the school can become an extended family for those learners (Deal, 2016; Goodwin, 2011; Goodwin et al., 2016; Gruenert, 2017; Peterson & Deal, 1998). Positive cultures also leverage rituals and traditions to celebrate others and provide a platform for new stories to be shaped and retold. Most importantly, a positive culture allows for joy and liveliness to be the cornerstone of the learning experience (Peterson & Deal, 1998). The opportunities to positively impact students and staff unfold when the culture is strong and everyone works together. This collective effort is witnessed in the components of purposeful communities outlined as part of the balanced leadership change theory presented in the next section.

Change Theory – *Balanced Leadership*

Purposeful communities are born from positive school cultures, but they are only one component of a process to create impactful change in schools. In *Balanced Leadership for Powerful Learning*, Goodwin et al. (2016) outlines a change theory that positions principals to successfully empower teachers to grow and develop together through a multifaceted process. Acting as an important part of my theoretical framework, discussed further in Chapter 3, I am referring to this work as *Balanced Leadership* for this study.

Centering on fostering the leadership skills of principals who then build leadership throughout their staff, Goodwin et al. (2016) take a multipart approach to creating a thriving school culture and climate. Principals should focus on clarity, learn how to manage changes of varying magnitudes as improvements are made, and create strong school cultures along with holistic support through purposeful communities. Clarity comes with shared purpose and

understanding of the collective vision across the organization. Referring to high-performing schools as “beat-the-odds” schools, the authors convey the importance of a vision to propel the group. They describe how “what appeared to separate the beat-the-odds schools from others is that they had developed, with input from teachers, a common vision—which included helping all students meet high expectations for learning” (Goodwin et al., 2016, p. 72). As visions for the future are established, a change process is set into motion.

Change is a common occurrence in educational settings, but that effect can vary in the long-term. Goodwin et al (2016) assert that “schools change often, but most changes are surface changes. Real change requires leading people into the unknown, where they have to confront and change their own values and beliefs about teaching and learning” (p. 38). A four-part approach to change is presented, beginning with (a) acknowledging that change is experienced differently by each person. As discussed further in an upcoming section on magnitude of change, first-order change positions the experience as something comfortable and straight forward, which can be approached with existing knowledge and skills. Second-order change, however, disrupts new knowledge and skills required to navigate the new sense of normal; (b) misreading these experiences across the staff can result in the principal’s misguided leadership efforts and create confusion across the organization; (c) with a correct read on the situation, principals can empower their leadership when adaptive work is underway, sharing the responsibility with staff and encouraging innovation; (d) and finally, strong leaders recognize that the change process is complex and iterative as they navigate groups of teacher leaders through the implementation process. As leaders work to empower staff and center on a positive culture, purposeful communities become the vehicle to implement change.

Purposeful communities are a critical component of the *Balanced Leadership* framework and play an important role in the theoretical framework of this study. To create positive change, Goodwin et al. (2016) share the following four characteristics of a purposeful community that, when combined, create a culture in which everything a school does is focused on continuous improvement geared toward student success:

1. A strong sense of moral purpose and high expectations (purpose and outcomes that matter to all)
2. A shared commitment to consistency (agreed-upon processes)
3. Focusing resources on what matters most and building on strengths (use of all available assets)
4. A prevailing sense of optimism and a can-do attitude (collective efficacy) (p. 77)

The authors heavily emphasize that the development of a purposeful community is done through the work of school leadership. These leaders promote shared beliefs and establish lines of transparent communication with staff. They work to build relationships both with and between their staff and involve teachers in important decisions. Finally, they are the resident cheerleaders, but with a mindset of continuous learning. They celebrate accomplishments, but they also acknowledge failures as learning moments for the future. School leaders working to build purposeful communities are critical in establishing a well-supported school vision as they invite teachers into a meaningful dialogue about community-focused outcomes. This dialogue is critical as no two schools are alike. The diverse perspectives of purposeful community members will bring forward a series of ideas and beliefs that shape the unique vision for learning for a particular school. In describing the process, they explain:

> An important first step in creating conditions that invite people to become part of a purposeful community is to create an environment that is psychologically safe and encourages people to share their beliefs, assumptions, philosophies, and values in order to discover shared purposes and outcomes for the school community. (Goodwin et al., 2016, p. 78)

As beliefs are discussed and visions are formed, the school's culture can be supported through both the environment and the pedagogic approach of the teachers within. Although it is outside the *Balanced Leadership* framework, Leiringer and Cardellino (2011) also support bringing the vision for learning to light early in the design process to shape conversations and ideas that might influence new spaces for learning. For this study, discussions will bring together designers and educators with vastly different backgrounds and areas of expertise as foundational discussions about values and beliefs translate into built space. Understanding the community of educators' collective vision is only one concept of organizational change discussed in the next section. The process of change is critical to understand, as it connects directly to my second research question and is a core component of my theoretical framework.

Organizational Change

Change is a fundamental part of life. It comes by choice and by chance as we learn, grow, and make connections with others. Change is multidimensional and varies in scale, but almost always comes with a ripple effect of circumstances and feelings. It happens at home, at school, and in business, and how we handle it can be the key to long-term success or long-term frustration. Resistance to change is not uncommon. As humans, we are wired for comfort and security, and change represents the opposite of that as we are propelled into new situations and modes of understanding. In a review of the literature, I found that by viewing the change process

as a continual learning and growth experience and supporting that all organization members can act with a leadership mentality, change can begin positively and collaboratively. The magnitude of change can vary significantly among individuals. However, no matter what degree of change occurs, a loss is embedded within the experience and should be acknowledged and discussed to allow for meaning to be found and fostered in a new way. At the start of a change process, a collective vision can act as a guiding force, while leaders work with an inquiry-based approach that allows for clarity to develop along the way. The change process is a continually evolving effort, but trust and comradery can be fostered throughout organizations through a collective problem-solving approach.

Mindsets and Approach

As school and business organizations are faced with a quickly changing world, the key to success might involve a mindset on continuous learning and adaptation. Dweck (2016) speaks to the differences in two personal mindsets: a fixed mindset and a growth mindset. In a fixed mindset, a person's character, intelligence, and creative abilities are pre-determined elements that cannot be changed in a meaningful way. In a growth mindset, skillsets can be developed over time through hard work, strategy, and input from others. These two mindsets speak to the individual but can translate to organizations as well. Learning organizations allow individuals to continually expand their ability to create desirable results by nurturing new thinking patterns and the freedom to learn and grow as a unit (Senge, 1990). The mindset of learning organizations can be applied to varying industries, and, in the case of schools, it means fostering a sense of shared commitment and involvement. Senge (2000) advocates for a collective approach to both idea sharing and path building:

> Schools can be made sustainably vital and creative, not by fiat or command or by regulation or forced rankings, but by adopting a learning orientation. This means involving everyone in the system in expressing their aspirations, building their awareness, and developing their capabilities together (p. 4).

As the group members work to understand themselves as individuals and together as a unit, moments of learning happen during experiences of success and failure alike. Goodwin et al. (2016) describe a shift in perspective to continuous improvement as a fail-forward mindset advocating that educators "simply need to be willing to try something new, test its effects, and make course corrections as necessary" (p. 28). Positive cultures take hold as organizations embrace learning together, both in moments of failure and success. Expressing aspirations and developing skillsets as professionals together can be established through a process of personal and organizational visioning.

Visioning

As groups face the opportunity for development, an open dialogue about the vision, which establishes the organization's overarching goals, can act as a lighthouse during times of change, focusing a group forward purposefully and consistently. Visioning processes are widely discussed in literature through the lens of business (Kouzes, 2003; Senge, 1990), as well as in literature regarding the change process in education (Chenoweth & Everhart, 2013; Fullan, 2007; Goodwin et al., 2016; Lambert, 1998). Advocating for change to occur within a democratic environment, Chenoweth and Everhart (2013) share that "only when all parties understand the issues that are being addressed and the practices being proposed will they be willing to share the responsibilities for making change happen" (p. 7). Echoing this sentiment and focusing on capacity for leadership being held at all levels, Lambert (1998) says:

> As long as improvement is dependent on a single person or a few people or outside directions and forces, it will fail. Schools, and the people in them, have a tendency to depend too much on a strong principal or other authority for direction and guidance. (p. 50)

These approaches toward organizational impact focus on avoiding a top-down leadership dictation of vision, and instead on building cohesion in ideas by reflecting individuals' personal beliefs that will work to support the common cause each day. Senge (1990) describes a shared vision as "a force in people's hearts" and one that "creates a sense of commonality that permeates the organization and gives coherence to diverse activities" (p. 192). A shared vision can be intertwined with components of the mission and purpose of an organization. Deal (2016) describes the collective set of vision, mission, and purpose as a means for people to connect with the higher calling of the school viscerally. The vision becomes an articulation tool to communicate what the school can strive for as teacher leaders come together to achieve their dreams.

Significant emphasis on the importance of a vision being established as a shared one is consistent across the literature (Deal, 2016; Fullan, 2007; Goodwin et al., 2016; Lambert, 1998; Senge, 1990, 2000). Each person in the organization should have a concept of what they individually picture relative to a successful future; however, those views cannot remain internalized. Instead, they should forge a shared picture because without the time spent to encourage the discovery of a collective voice, it can result in a shallow acceptance and lack of impact. It does not mean each person must have the same opinion, acting in unison, and without a personal interest. Instead, it allows each person to see their bright future in a common cause

and feel motivated to do hard work in their own unique way. This work not only benefits themselves, but also the students and the greater community.

Studies show that having a vision in place for an overall learning organization is not uncommon. However, key stakeholders having a personal connection to that vision and taking the steps necessary to regularly address its implementation in school environments often are neglected (Chenoweth & Everhart, 2013; Cox, 2005). Instead, leaders may have entered the organization that had a vision in place of which they felt no ownership, and it served no more purpose than a statement on a wall or in a book. Effective leadership at all levels ensures that current members of the organization not only understand the vision, but also support it and believe they can take action toward achieving it through their work (Lambert, 1998).

As discussed in a previous section, creating a vision as the launch point for positive school culture is not a one-size-fits-all process. However, there are foundational aspects that can be found across various methods mentioned in existing literature (Chenoweth & Everhart, 2013; Deal, 2016; Lambert, 1998; Owens & Valesky, 2007). Although principals and other essential school leaders can shepherd the vision through various change efforts, teachers and even the community are critical partners in establishing a collective picture that all will embrace, fostering empowerment and commitment. In addition, reflection on the organization's history and deeply held personal values is vital, as are genuinely listening to others' values and seeking common themes to achieve a shared value set that will be mutually supported. Finally, the permission to dream must be given throughout the process as big ideas are explored and a bright future for all members of the organization is envisioned to build a positive culture and lasting impact. Goodwin et al. (2016) focus on creating a bright future for collective improvement, saying "When the tension between the current reality and the anticipation of a preferred future is great

enough, it motivates individuals or groups to move beyond the status quo" (p. 50). This affirmative picture for the future can be bold and bright enough to bring a desire for individuals involved in the organization to initiate and engage in change, even if the road ahead is likely to be bumpy. Chenoweth and Everhart (2013) provide a four-step process to establish a vision as part of a school change process. Step one begins with a small group activity to create buy-in from everyone involved. The authors advocate for a hands-on brainstorm session to envision what a "dream school" would look like in actions, behaviors, and instructional practices. Step two is about identifying powerful and meaningful words to represent the dream school from step one. Each small group is responsible for developing a list of nouns, verbs, adjectives, and adverbs. The large group then votes on these to determine a collective list of positive descriptors. In step three, small groups use these "power words" as the core components to craft their unique versions of vision statements with 14 or fewer words. Unique vision statements are shared across the large group and consolidated into three collective versions for leadership to later wordsmith into a single statement. Finally, step four encourages a set of accompanying belief statements to bring the vision to life. These belief statements are intended to operationalize and further clarify the vision and are jointly formed and collected under like categories. After gathering like ideas and pared-down concepts, the authors suggest a resulting six to 12 belief statements that should be celebrated and publicly displayed along with the singular vision statement. This multistep process brings forward a picture for a desirable future, a concept that Gruenert (2017) supports, encouraging stakeholders to envision the school five years in the future and the artifacts representing that point in time. Once a vision is established, the work continues. Discussing, maintaining, and evolving the vision is a cyclical process that plays out in a continuous loop, but is acted upon by developing goals that seek to reach this picture of a bright future (Deal, 2016;

Lambert, 1998; Owens & Valesky, 2007). School principals are crucial in supporting both the visioning process and the ongoing work of building up the organization's members to achieve the goals identified to support the common cause. Goodwin et al. (2016) speak to the importance of school leaders identifying others within the organization to help create momentum through their ability to positively influence those around them. These opinion leaders can reside throughout the school — and with a careful connection of how the change initiatives underway can be framed for acceptance and support — the principal can generate a ripple effect of leadership as vital work to implement a vision is undertaken. It is important to consider that leadership is not the sole responsibility of one person in the school building, nor is it simply a function of authority

Leadership Philosophies

Although at the building level, where the daily work of learning occurs, it is typically the principal who is responsible for building a cohesive staff of individuals striving for the best interest of the students they guide. Conventional understanding has created the principal's image as a source of educational expertise, logistical juggling, and building staff leadership. Understanding the assumed responsibility of the principal to act as a leader, first requires an understanding of leadership in general.

As Drath and Palus (1994) share, leadership is not about authority or social influence, it is about the process to jointly make meaning in a community of practice. The work of the leader is not to dictate or to direct, it is to connect people to build a culture of understanding and make progress through their efforts together. Like the concept of co-creation, leadership from this perspective is about a social meaning-making process as opposed to an effort to exert social influence on a goal that is directed. Lambert (1998) echoes a similar approach when discussing

leadership capacity in schools, advocating for broadening the concept of leadership beyond the role of a singular individual, the principal in the case of school buildings. By limiting the concept to a title, it shuts the door to a broader participation that can help to build a sense of community. As Lambert (1998) explains, "This concept that I call 'leadership' is broader than the sum total of its 'leaders,' for it also involves an energy flow or synergy generated by those who choose to lead" (Lambert, 1998, Loc. 79). These views of leadership shift from the top-down assumption of a singular authority figure to an evolved model of fostering a culture of learning and leveraging expertise at the teacher level. By shifting to the role of "lead learner," the principal takes an inclusive approach to leading, creating a culture of collaboration that focuses not only on teacher learning, but also on their own learning as well (Fullan, 2007; Lambert, 1998). After removing the concept of leadership as only applying to the principal, the doors open to allow more people to feel ownership and empowerment as they leverage their expertise to further the organization's success. Lambert, Zimmerman and Gardner (2016) speak to a leadership approach that reaches far beyond the principal by saying:

> To lead is to foster capacity in complex, dynamic systems through purposeful, reciprocal learning. This leadership perspective frames participation as essential to a democratic milieu. Broad-based participation can fully engage all in capacity building, while being ever conscious of the potential and meaning of dynamic interactions. This is what is meant by broad-based participation in the work of leadership. (p. 22)

Leadership that fosters participation across an organization parallels a vital theme of inclusion that is woven throughout this study as collective agency is created in schools. Clear to point out that leadership capacity is not a delegation of responsibilities, but instead a constructivist approach to leading together, Lambert et al. (2016) share four archetypes representing different

stages of leadership (see Figure 5) and the associated levels of skillfulness and breadth of participation of each.

Figure 5

Leadership Capacity Development Matrix

Breadth of Participation

Depth of Skillfulness

Low Capacity **Archetype 1** • Principal as autocratic manager • Limited (one-way) flow of information; no shared vision • Codependent, paternal/maternal relationships; rigidly defined roles • Norms of compliance, blame, lack of trust; low sense of agency • Program coherence technical and superficial • Lack of innovation in teaching and learning • Student achievement is poor, or showing short-term, unsustainable improvements on standardized measures	**Archetype 2** **Fragmented Capacity** • Principal as "laissez faire" manager; many teachers developing unrelated programs • Fragmentation and lack of coherence of information and programs; lack of shared purpose • Norms of individualism, lack of collective responsibility and agency • Undefined roles and responsibilities; situational trust • Spotty innovation with both excellent and poor classrooms • Student achievement appears static overall—unless data are disaggregated
Limited Capacity **Archetype 3** • Principal and key teachers as purposeful leadership team • Limited uses of schoolwide data and information within leadership group • Polarized staff, pockets of strong resistance; limited trust outside team • Designated leaders act efficiently with a growing sense of agency; others serve in traditional roles • Reflection, innovation, and teaching excellence among selected teachers; program coherence still weak • Student performance static, or showing slight improvement	**Archetype 4** **High Capacity** • Principals and teachers, as well as parents and students, as part of generative learning communities • Shared vision results in program coherence and collective agency • Inquiry leads to growth in knowledge and improved practice • Roles and actions reflect collaboration, trusting relationships, networking, and collective responsibility • Reflective practice consistently leads to innovation • Student performance, based on multiple measures, is steadily improving

Note. Four archetypes of leadership capacity development by Lambert et al. (2016, p. 23) demonstrating a shift in the depth of skill and breadth of participation.

Archetype one demonstrates a low-capacity stage. Within this stage, there is a lack of shared vision, creating staff disengagement and a lack of innovative teaching and poor student achievement. Archetype two has fragmented capacity, meaning there is inconsistency in

approaches to education and programming, creating a lack of shared purpose. Roles are unclear and student achievement is static. Archetype three shows a culture with limited capacity, led by the principal and key leaders, in which the mindset of innovation is not shared across the organization. Instead, pockets of support and resistance surface and student performance is static or shows minor improvement. Archetype four is a high-capacity approach in which the entire learning community, including parents and students, rallies around a shared vision. They rely on trusting relationships to work collaboratively and, thanks to their collective innovation, student performance is on the rise. This four-part model reinforces the need for a shared vision, covered in the previous section, where the entire learning community can understand the school's collective dream. Once schools have undergone the hard work necessary to create a high sense of leadership capacity across the organization, they can focus in on what it takes to be members of a culture that emphasizes continuous learning. As Lambert et al. (2016) further explain, "Acquiring the skills, processes, knowledge, and deep understandings needed to create and sustain high leadership capacity organizations is the work of a professional learning culture" (p. 42). Professional learning cultures are covered in the next section through the lens of teacher leadership.

Teacher Leadership

As principals shift their roles to allow for a schoolwide leadership mentality, the teacher's role in this process becomes essential. York-Barr and Duke (2004) define teacher leadership as "the process by which teachers, individually or collectively, influence their colleagues, principals, and other members of school communities to improve teaching and learning practices with the aim of increased student learning and achievement" (p. 287). This work can encompass three essential elements: their individual development, their collaboration with others, and the

organization's betterment (Ankrum, 2016). Teacher leaders might have been assigned positions of formality (e.g., instructional coaches or department chairs) or can informally lead as they maintain their daily work in the classroom with students. Their work can be individual, but often emerges as they function in communities of practice where they learn together and collaborate with colleagues (Wenger, 2002).

Communities of practice can be seen in the implementation of professional learning communities (PLCs) where teachers come together for growth. Gruenert (2017) describes these small groups of teachers as sharing a common interest, perhaps all teaching within the same grade level, subject area, or sharing responsibility for the same cohort of students. DuFour (2012) cautions against considering the process of creating PLCs as an add-on approach to a school's existing practices saying, "It is not a program to be purchased or an appendage to the existing structure and culture of a school but a process that profoundly impacts the existing structure and culture" (p. 4). Instead, the authors advocate for shifting the considerations of how PLCs function to three big ideas. First, focusing on high-level learning and answering how that goal will be pursued. Second, educators must implement a collaborative approach to their work to meet each student's unique needs. This unity can influence how teams are formed and how collaboration becomes the heart of the organization. Finally, the third critical approach is to become focused on results. By leveraging data and creating actionable and measurable goals, educators can better approach impactful learning experiences for each student. Coming together to share the ideas of all for the benefit of student learning, PLCs leverage the group's power. The group members do not dwell on challenges but work to make their time together focused on problem-solving rather than making excuses or complaining about things outside of their control. As communities of practice like these take hold, the principal's support as a guardian of the

process is still needed. In this critical work of building teacher leadership capacity, the principal creates an environment in which there is an emphasis on inquiry to inform shared decision-making. They promote a feeling of shared authority for teachers to explore, and they adopt new curricular and pedagogical practices and logistical efforts. Finally, they ensure the resources, including time and funds, are available to carry out collective plans (Lai & Cheung, 2015; Lambert, 1998). Through deliberate work, the principal can foster relationships and personal ownership to act as drivers in pursuing the shared vision established and can be available to guide the ongoing daily work to achieve it. However, with these deepened leadership layers, recognizing personal readiness differences of individuals who participate in the change process can be an essential component to a successful journey.

Magnitude of Change

As shared visions are established in schools, thoughts and discussion can naturally turn to what must occur to see this new mental picture become a reality, propelling the process of change. In any change process, the variation in the magnitude of change individuals might feel is a critical component to acknowledge. Based on past experiences and relationships, mental models or schemata are formed as organizing frameworks for how individuals make sense of the world. These schemata do not predetermine courses of action but provide an internal lens for which change is processed (Bartunek & Moch, 1987; Marris, 1974; Zimmerman, 2006). Because each person has differing past experiences, the framework with which they evaluate the magnitude of change differs, as well as their openness to uncertainty. Speaking to the possibility of closing the mind off from change, Marris (1974) recognizes the fight or flight possibility of the experience:

> The impulses of conservatism - to ignore or avoid events which do not match our understanding, to control deviation from expected behavior, to isolate innovation and sustain the segregation of different aspects of life - are all means to defend our ability to make sense of life. (p. 12)

The acknowledgment that experiences will differ in severity among each person as they work to make sense of a new version of life is an essential first step in making change an organization-wide effort. For some individuals, a change can be significant, impacting the overall structure of daily life. For others, it can be merely incremental or substitutional, where the purpose and patterns remain the same, but a simple shift in the application of tools is made (Marris, 1974). These simple changes can be described as first-order change. As Bartunek & Moch (1987) describe, "First-order changes are incremental modifications that make sense within an established framework or method of operating" (p. 484). These substitutions make sense in the current schemata known by an individual or by an organization as a whole, and they reinforce current understandings while allowing for small shifts in approach. In schools, this can mean replacing a type of technology with a more advanced tool, or a change in the order of processes to achieve a predetermined result. In contrast, second-order change challenges current frameworks and phases out an in-place schema while phasing in a new version of understanding. An example might be a collective shift in the instructional approach, adding support via an instructional coach, or implementing a new curriculum centered around project-based learning. The shift is one that might be guided through leadership as group members are supported through change. Third-order change adds a layer of empowerment, working to help individuals develop the capacity to understand their current schemata, identify when second-order change is necessary, and take steps to make modifications as they see fit. First- and second-order change is

also discussed within educational leadership by Goodwin et al. (2016). Although they do not continue into third-order change, the characteristics of the first two change types (see Figure 6) support the work of Bartunek and Moch (1987) and recognize that what could be first-order for one person could be a second-order change for another.

Figure 6

Characteristics of First and Second-Order Change

FIRST-ORDER CHANGE IS CHANGE THAT IS PERCEIVED AS . . .	SECOND-ORDER CHANGE IS CHANGE THAT IS PERCEIVED AS . . .
• An extension of the past • Within the existing paradigm • Consistent with prevailing values and norms • Implemented with existing knowledge and skills	• A break with the past • Outside the existing paradigm or modes of operation • Conflicting with prevailing norms and values • Requires new knowledge and skills

Note. A summary of first-order change and second-order change, as presented by Goodwin et al. (2016, p. 40).

The recognition that each person might come into a change process with differing schemata and experience the process in a unique way is vital to creating change holistically. Marris (1974) brings to light the complexity of change by saying:

> In reality, we are likely to perceive the changes we encounter as all these at once - part substitution, part growth, part loss in varying degrees: and the collective experience of change is even harder to discriminate in these terms, as it bears on people so differently. (p. 22)

Although the change process can be considered through three lenses, recognizing loss, which is discussed below, is critical because a loss can be felt even within the most fundamental experiences of change. As principals work to balance the established frameworks that each

teacher leader possesses, there are essential components of the change process that can influence the likelihood of success, the first of which I will discuss is the meaning and process of change.

Meaning and Process of Change

Although the magnitude of the change ahead will vary with each individual, seeing successful results lies in two critical areas: establishing meaning and understanding and embracing the process. Individuals at all levels must personally come into the conversation about change with a strong understanding of, and commitment to, why the change is needed and the process before them to achieve positive results (Chenoweth & Everhart, 2013; Fullan, 2007; Lambert, 1998). This sense of purpose is discussed at the organizational level through visioning processes covered in a previous section. However, it ultimately relies on the individual's willingness to change in the pursuit of the common goal. Chenoweth and Everhart (2013) explain how "the starting point for improvement is not system change, not change in others around us, but change in ourselves. Waiting for others to act differently, results in inaction and no change" (p. 34). The motivation for significant change must be intrinsic, not dictated from leadership or reliant on only others in the organization. Intrinsically motivated change reinforces the need for leadership to occur at all levels, reaching classroom teachers who will face the implementation of changes daily. Fullan (2007) speaks to the multidimensionality of change during the implementation of a new program or policy, saying:

> When we ask which aspects of current practice would be altered, if given educational changes were to be implemented, the complexity of defining and accomplishing actual change begins to surface. The difficulty is that educational change is not a single entity, even if we keep the analysis at the simplest level of an innovation in a classroom. (p. 28)

This change within a classroom can include at least three components: new or revised materials, new teaching approaches, or a shift in underlying beliefs about learning. Bringing clarity to the process is essential to ease individuals' frustrations experiencing the change at varying magnitudes.

As any significant change effort is embarked upon, the process is not always linear. Ideas are shaped and reshaped as new skillsets develop, and as team members build capacity and ownership (Fullan, 2007; Lambert, 1998; Owens & Valesky, 2007). The approach to reflect and redirect efforts is supportive of the mindset of learning organizations discussed previously. However, transparency of plans and expected outcomes is vital for cohesive efforts. Once a collective vision has been established, the work begins to identify goals and action items to achieve that new view of success. These goals shared across the entire team and supportive of the collective vision will ensure that everyone focuses on the same priorities. Lencioni (2012) explains how "the only way for a team to really be a team and to maximize its output is to ensure that everyone is focused on the same priorities — rowing in the same direction, if you will" (p. 66). Although shared, it is the responsibility of each individual through their unique roles to work toward the goals, which should feel attainable. As plans take shape to achieve goals, they should be brief, focused, actionable, and clear, and they should weave in efforts of action to allow team members to feel a sense of empowerment and belief they can make a change (Fullan, 2007; Lencioni, 2012).

Through the early efforts of establishing meaning in change and clarifying the process, the leader, which in many cases is the principal, can work with a mindset of collaboration and transparency, fostering a sense of trust amongst teacher leaders as they work to build individual capacity. As trust builds at all levels, positive pressure also increases. Teachers not only

collaborate, but also challenge each other to relentlessly work toward success (Fullan, 2007; Lambert, 1998). This foundation of trust allows for meaningful conversations based on inquiry as teams progress through the implementation process, seeking to gauge their successes and continued challenges and making ongoing modifications in mindset and approach.

Inquiry-Based Approach

A school culture based on inquiry at the teacher leadership level is an additional supportive layer in the change process. This inquiry-based approach has critical commonality with a constructionist view of learning that leverages previous experiences for a new formation of reality (Chenoweth & Everhart, 2013; Lambert, 1998). As conversations about the meaning and process of change occur, leaders can support an inquiry-based approach instead of focusing on the advocacy of individual ideas. These discussions shift from being technical and routine-based to being fueled by curiosity, focusing on clarifying questions to identify steps to success (Lambert, 1998). Although advocacy is still valuable with no balance of inquiry, it becomes a discussion of who can push hardest for their ideas instead of allowing the group to understand the value of the idea itself. Chenoweth and Everhart (2013, p. 51) summarize *The Inquiry Process* (p. 51) as a means for working together through five critical stages: (a) a focus on the challenge area; (b) the opportunity to brainstorm solutions; (c) a summary of solutions and development of action plans; (d) a pilot test for conceptual plans; and (e) an evaluation and reassessment effort. Lambert (1998) advocates for committing to a culture of inquiry, saying it provides “a forum in which we can surface and describe our most compelling questions” (Loc. 1121). Her strategies of effective inquiry include dialogue to refine practices, assessing student work through collaborative sessions, peer coaching and review, collective problem-solving approaches, alternative forms of research to support a learning mindset, evaluation of school

data, and grounding work in a common vision. Curiosity and the belief that improvement is possible drive both examples of inquiry-based approaches, supporting a learning organization mindset (Senge, 1990) discussed in a previous section.

By rooting work in the school's vision and evaluating options and outcomes through a collective problem-solving approach, trust and comradery can be fostered at the teacher level. Working together, the group seeks answers to compelling questions about practice and results, allowing for a sense of empowerment and the pursuit of mastery in their efforts as both individuals and as a teaching team. Both *The Inquiry Process* (Chenoweth & Everhart, 2013) and strategies of effective inquiry (Lambert, 1998) speak to the continued importance of a collaborative approach where ideas for implementing a new vision can occur at a variety of leadership levels, not from the top only. As plans take shape, the need for clarity becomes increasingly essential, ensuring everyone on the team is giving and receiving consistent messaging.

Clarity

Clarity across an organization can be difficult, especially in the case of large groups. With many individuals with unique mindsets on the change process, there is plenty of room for variations in interpretation, not only as to why change is essential, but also how it can happen. As the change process begins, genuine understanding might not always be the case as information is shared. If the meaning of change is too subtle, there is a potential for the clarity to be a false acceptance. Fullan (2007) supports this by saying, "False clarity occurs when change is interpreted in an oversimplified way; that is, the proposed change has more to it than people perceive or realize" (p. 70). To avoid the possibility of false clarity taking hold, leaders can work on a clear understanding of meaning at the onset of change and throughout the implementation

process. They can reinforce the implementation experience as a learning process, supporting the mindset of a learning organization being one that is continuously adapting and evolving (Fullan, 2007; Senge, 1990). Clarity in understanding and messaging is certainly not a one-time effort. The work to send clear messages and establish a common understanding is a constant process, and this effort to over-communicate clarity is an essential consideration during the change (Lencioni, 2012). This constant process means the work of achieving clarity is never done.

A common trap in the change process is perfection paralysis, where teams feel they not only must amass all knowledge on a topic or challenge, but they also must have plans perfectly outlined to move forward with a clear and purposeful approach (Fullan, 2007; Lencioni, 2012). To avoid the potential to become stuck without all the information firmly in place, teams must consistently reflect on the organization's collective vision and overarching goals, using these as guiding forces. At the same time, they should seek clarification during the process. With brief, actionable plans in place, a mix of current valid knowledge, political considerations, on-the-spot decisions, and intuition can move the group forward (Fullan, 2007). Visions should be referenced and reflected upon frequently as opportunities arise, not only during overall planning discussions, but also in the daily work of those making the change to support it (Fullan, 2007; Kotter, 2007). By having this foundational information at the ready, the work during the implementation phase can be focused on a continual effort to try to make change, reflecting on success and adjusting for the next steps. Moreover, as much as the change process is a continually evolving effort, the team members in place might be evolving along with it.

The work to establish clarity must be continuous. Each time a new member enters an organization, there will be a brief period of catching up to the current group's knowledge. As messages about the organization's work are shared and reshared, they are presented in different

scenarios, from different voices, and applied to different situations. In the absence of a consistent approach, this can quickly become confusing and overwhelming for teachers. They might feel they are unsure of the ultimate goal and the process of getting there. By focusing on a collective vision, allowing clarity to be formed and reformed during the process, and communicating efforts across various channels, teacher leaders have the potential for tremendous success in change. Clarity can take time to form, as the process of managing the difficult emotions associated with change begins with acknowledging what was previously meaningful and how that meaning may shift.

Loss During Change

Change, no matter the magnitude, represents a loss. It presents a shift in what was known to a potential unknown or, at most, as a picture of what could be. As it continues, participants in the change process get glimpses of what the new future will hold. However, it is not uncommon for change to be resisted within organizations, mainly because of the potential loss and uncertainty it brings. Marris (1974) shares that as humans, our survival depends on predicting events reliably over time, and that reliability comes from past experiences and the way we translate events and relationships into long-term understanding. Early experiences shape how meaning is developed and become so heavily ingrained over time that our ability to handle a shift in circumstances is directly tied to the ability to translate that original meaning to the new version in an abstracted way. This survivalist mentality is why organizations do not resist change; it is the unique individuals who struggle with a shift in approach.

The response to change and the turmoil it creates is profoundly emotional and can elicit varying responses from individuals who feel their comfort and security are being individually threatened (Bailey & Raelin, 2015). The feeling of threat does not always stem from a hostile

place; even positive change represents loss, as one or more things are surrendered, allowing for a new approach to become the replacement. Bailey and Raelin (2015) advocate for an evaluation of the potential change to be the limiting factor or the emotional block that it may naturally create:

> Ultimately, the success or failure of change must account for the individuals as well as the organization in aggregate. For change agents, the primary value of this model is in understanding that the content of an initiative is less important than the psychological bulwark it invades. (p. 135)

As individuals and organizations measure the magnitude of change in different ways, the awareness of the resulting consequences can vary. Even in small, incremental change, discussed in a previous section, there is a ripple effect that can linger and influence the magnitude of change overall. For example, purchasing a new home to replace a worn or dated version might appear to be a simple substitution for an aesthetic or functional experience, all meeting similar needs of the family it shelters. However, the ripple effect can be broad. Perhaps the neighborhood location is different, bringing with it a shift in relationships with friends and neighbors and a feeling of isolation until new relationships form. It is a common experience for first-order or incremental change to bring complexity in layers that require acknowledging the loss. A bereavement process must follow to allow for the mourning of the loss before successfully implementing the initial change. Marris (1974) speaks at length to the bereavement process and its relationship to change as part of growth. Associating a change process to the elements of mourning a death, he generalizes the principles into three components. First, loss naturally generates conflict that a person must resolve to restore a sense of continuity based on previous experiences. Second, the process of resolving this conflict is an exploration through

which the original meaning is sought. Finally, until this experience of grief is processed, the feeling of conflict will be sustained because of a lack of other meaningful behaviors on which to base the feelings. This three-step process reinforces the need for open dialogue amongst leadership teams as members experience change and the associated loss in varying magnitudes and process grief in different ways. This dialogue can naturally include conflict as different experiences are shared, emphasizing a collaborative, trust-based culture amongst teachers. Establishing a new sense of meaning takes time. It can be supported by providing space to allow each team member to personally, and communally, work through abstracting meaning to the present, not merely attempting a substitution (Bailey & Raelin, 2015; Marris, 1974). As school leaders work to navigate the change process alongside teachers, they can model an open and honest culture of discussing both the benefits of potential change and the challenges that must be navigated as the team seeks to find new meaning and rewarding experiences.

Although literature exists in the realm of organizational change through the lens of education, the connection to creating new learning environments as both a catalyst to change and a component of sustained change is lacking. This study acknowledges critical elements of change, such as a commonly established and embraced vision, to jumpstart the co-creation process and act as a consistent thread through the team of designers and educators. Understanding the experiences district administrators have had with change processes and their mindset on how new learning environments can impact change will bookend the co-creation process, as their leadership can help generate and sustain purposeful communities working hard at the district and building level.

Summary

The literature reviewed reinforces that the connection between designers and educators in the process of creating new environments and experiences for learning is a valid area of exploration. These vastly different areas of expertise are thrust together during design, presenting both parties with a background and vocabulary that are unfamiliar as they work to meet in the middle and communicate both the design process itself and the opportunities for impactful outcomes for students and staff. Woven through nearly every concept reviewed in the literature is the importance of involving the end-user in creating a new environment or experience. This participatory approach rings true for the design process, creating and supporting positive school cultures and a positive and impactful journey through the change process. However, the importance of school leadership does not diminish. These leaders are the flagbearers, the active listeners, the translators and the cheerleaders as they work to connect others' ideas. Simply put, leadership is crucial to guide the ship, but the members of the organization must be rowing together for maximum impact. As these stakeholders come together to create impactful learning experiences and environments, a shared vision establishes a foundation for the critical work of design, practice, and change to be built upon. Not only should the school have a vision for the future, but each staff member also should be personally connected to that vision in some way and should be able to see the value of their work and the resulting group impact. This personal connection will lay the groundwork for each individual's journey through the change process, which undoubtedly will look and feel different for everyone. The understanding that each person experiences change differently brings the concept of connecting individuals full circle.

As designers and educators come together to create new environments and experiences for learning, a change process is initiated, resulting a need for research that seeks to better

understand the process of co-creation as it relates to change leadership, visioning efforts, school culture, classroom pedagogy, and more. In the case of new facilities, both students and staff can be brought together under one roof for the first time as the school embarks on a journey to uphold the school district's educational mission. In the case of replacement or renovated facilities, a group of students and staff that might have previous relationships, both with each other and the community, will find themselves thrust into a new environment, perhaps one that challenges the way they previously viewed the learning experience. As this change process launches, the ability to leverage everyone's expertise is paramount, maximizing the precious time available to create understanding and make decisions that will generate a feeling of comfort, pride, and excitement amongst those involved. This excitement and pride become the cornerstone for a positive school culture that supports the growth of every single member — students and staff alike — as they come together to experience impactful learning.

Chapter 3 - Methodology

This chapter expands on the introduction provided in Chapter 1 and the literature review in Chapter 2. Approaching this work as a qualitative case study, this research sought to better understand educators' perceptions during the co-creation process of new learning environments. This chapter includes elements of case study methodology (Merriam, 1988) and my research approach through this lens. I will then close with the steps taken to ensure a rigorous and ethical approach.

Research Purpose and Questions

The purpose of this study is to evaluate a belief-based visioning effort during the co-creation of new learning environments in a middle school design process as perceived by its stakeholders, particularly concerning such effort in relation to leading change. The research questions guiding this qualitative study include:

1. How do middle school certified teaching staff, building-level administrators and designers make sense of a belief-based visioning process while co-creating new learning environments as they consider future classroom teaching and future design project facilitation?
2. How do school district administrators perceive the creation of new learning environments as part of an opportunity to influence organizational change?

Rationale for Qualitative Study

With my desire to explore educators' and designers' experiences and perceptions in the co-creation process, qualitative inquiry became a natural fit for this study. Consistency across definitions by multiple authors (Bhattacharya, 2017; Creswell, 2018; Merriam, 1998) suggests qualitative research is an inquiry process centering on exploring human experiences and the

resulting meanings that arise from the study of participants in a natural setting. Bhattacharya (2017) differentiates qualitative research from quantitate approaches by saying, “Qualitative research, on the other hand, aims to work within the context of human experiences and the ways in which meaning is made out of those experiences” (p. 8). Creswell (2018) brings theory into his definition saying, “Qualitative research begins with assumptions and the use of interpretive/theoretical frameworks that inform the study of research problems addressing the meaning individuals or groups ascribe to a social or human problem” (p. 8). Echoing a focus on social scenarios, Merriam (1998) speaks to the importance of a naturalistic approach saying, “Qualitative research is an umbrella concept covering several forms of inquiry that help us understand and explain the meaning of social phenomena with as little disruption of the natural setting as possible” (pp. 140-141). All three definitions referenced emphasize the researcher as a primary part of the data-collection process in a qualitative study. Although they are a primary component in the research process, the researcher is working to understand the experience that is shared from the participant’s perspective. More specific to this study, case studies are a form of qualitative research that provide a natural space to explore participants’ experiences within bounded settings and utilize data-collection methods that allow for an analysis process centered on insight, discovery, and interpretation, instead of statistical occurrences.

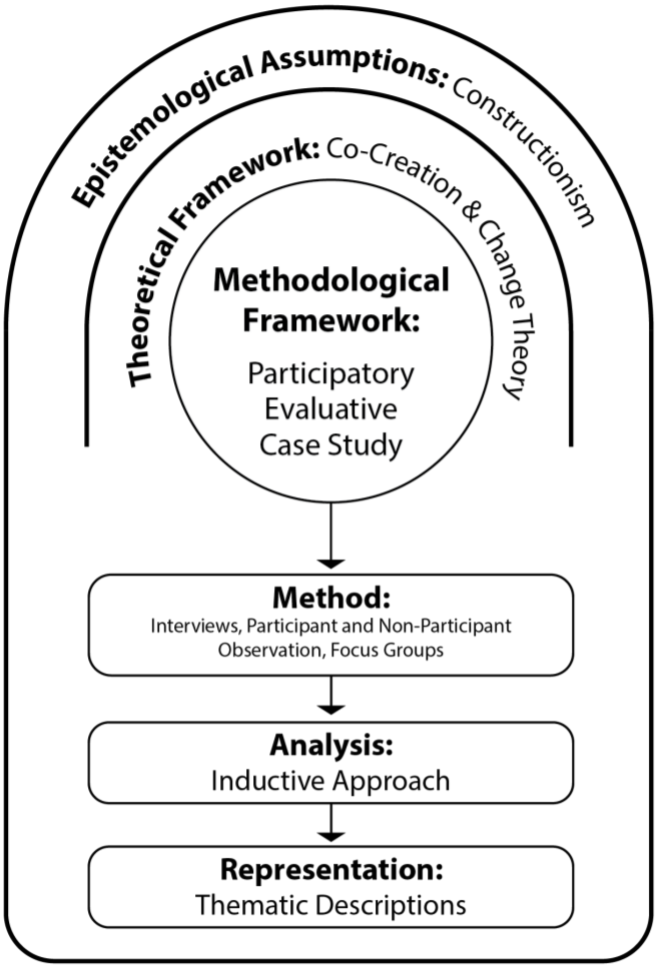
Conceptual Framework: Constructionism, Co-Creation, and Change Theory

This qualitative study utilizes a conceptual framework informed by constructionism (Crotty, 1998), co-creation (Sanders & Stappers, 2008), and change theory (Goodwin et al., 2016), and employs and evaluative case study methodology (Stephen, 2003). Figure 7 demonstrates the overarching epistemology and theoretical perspectives informing this

qualitative work and the methodological components of participatory evaluative case study research explored in future sections.

Figure 7

Conceptual Framework



Note. This diagram represents the interplay of my epistemological assumptions, theoretical framework, and methodological framework to influence the specific methods, analysis and representation of this study.

Epistemological Assumptions: Constructionism

The architectural design process unites the fields of education and architecture as new spaces for learning are imagined. Educational facility projects can range significantly in size and

scope; however, in most instances, educators are involved in some way to help shape the project's success. The backgrounds and areas of designers' and educators' expertise differ substantially, requiring purposeful effort from both sides to create connections and a genuine understanding of ideas and goals. For this research, I employed an epistemological view of constructionism, particularly from a social standpoint, where humans jointly construct knowledge and meaning as they engage with the world (Crotty, 1998). Constructionism is a perspective that influences how I view the creation of knowledge overall, and it is critical to how I work with teams professionally to facilitate the design process of new learning environments. As a designer who works closely with educators because of my specialty in learning research, I often find myself straddling the line of two vastly different professional worlds. My role as educational design director is to bridge any gaps of understanding, working to foster a common foundation on which the design process can rest and allowing both educators and designers to feel inspired to create unique new spaces for learners. I believe that jointly exploring ideas can produce even better results than one could create alone. Acknowledging this view early in the research design process is critical to making sense of the data analyzed in further chapters. The translation of a constructionist mindset to the design process works well with the concept of co-creation, a critical component of my theoretical framework discussed in the following section.

Theoretical Framework: Co-Creation and *Balanced Leadership* Change Theory

Having a theoretical approach is a critical component of qualitative research design, acting as a continuous lens through which the study was created and conducted. It offers a way to organize thoughts, present how assumptions and beliefs influence the research, and consider how patterns are explored within the data (Bhattacharya, 2017). Theoretical perspectives had a continuous presence in my research process, as it shaped the questions driving the study, the

techniques used to collect and review data, and ensured that generalizations were made from an analytic viewpoint rather than a statistical one (Merriam, 1998; Yin, 2018). The interpretation of findings from a clear theoretical viewpoint can support a strong connection with the reader, and since my research endeavors to reach readers from design and education backgrounds working in practitioner settings, the selection of a theoretical framework that supported a practitioner's view was paramount. I chose to position my study through the theoretical lens of co-creation paired with change theory (see Chapter 3 for extensive literature review on these concepts) in a manner that also leverages my practitioner's perspective of creating new learning environments with educators. The convergence of a constructionist view of the design process and implementing ideas through change theory was critical for both the study design and the data analysis. As a result, my work leverages the descriptive nature of qualitative research. Although I am presenting data from my unique position as the researcher, it is also my responsibility to provide a foundation of information for the reader to form their interpretations and understandings. Now, I will discuss co-creation and change theory concepts as separate components and summarize them with overlapping concepts for a robust combined framework.

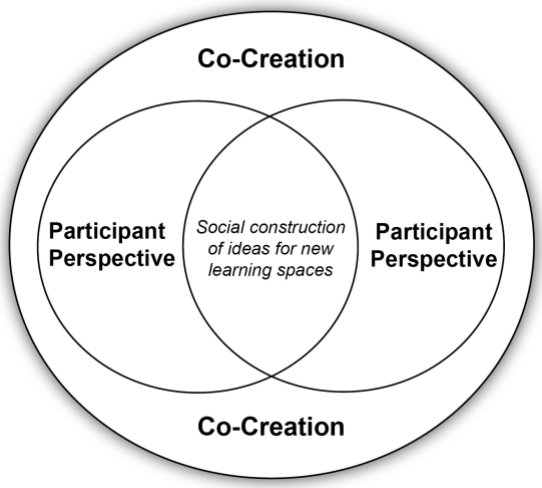
Co-Creation

As discussed in Chapter 2, researchers have brought attention to co-creation, a collective approach to creativity where the expertise of two or more diverse backgrounds is leveraged for mutual benefit (Jung-Joo et al., 2018; Prahalad & Ramaswamy, 2004a; Sanders & Stappers, 2008; Vaajakallio & Mattelmäki, 2014). Co-creation is not solely connected to the architectural design process and reaches into fields of product development, customer service industries, and even health care (Prahalad & Ramaswamy, 2004a). It is a broader view of collective creativity that is also referred to as co-design, a process in which the designer takes the lead in helping

those without design experience move through a process of ideation, exploration, and mutual understanding (Sanders & Stappers, 2008). A successful co-design approach acknowledges the gaps in common backgrounds and works to evoke the best ideas from each stakeholder involved in a creative process. The designer is no longer the sole expert in the design process. Instead, the user is guided to share their ideas, experiences, and future vision. Finally, this parallels what Björgvinsson et al. (2012) describe as participatory design, another variation on joint creation. Early projects facilitated with a participatory design mindset were based on production tools and planning. However, this translates broadly into a design approach based on a simple position that people who will be affected by a design should be involved in the process. As a collective view of these three frameworks is considered, the foundational similarities lie in leveraging a constructionist mindset (see Figure 8) to consider each participant's unique perspectives while creating knowledge and solutions together in a social-based process. This concept is referred to as co-creation in my research dialogue.

Figure 8

Model of Co-Creation as a Theoretical Framework



Note. A diagram demonstrating how the social construction of ideas from co-creation are a central component to the research design and participation process of this study.

In my practitioner role, and for this particular study, co-creation centers on leveraging each participant's unique perspectives to form ideas for new learning spaces together. As a collective understanding is formed during design, the opportunity to carry the ideas forward into implementation through an instructional approach in these new spaces lies within an organization's ability to successfully navigate change. Without embarking on a successful change journey that connects to the new space's daily use, the ideation that occurred during design falls flat. Because of this critical connection of ideation to pedagogy, I am pairing co-creation with change theory, which I will discuss below.

Change Theory: Balanced Leadership

Acknowledging that the hard work of creating new learning spaces and experiences does not stop at the end of the project design, the concept of co-creation continues through change processes as users work to adapt to their new environments. By including change theory as part of my theoretical framework, I hope to position this study as an ongoing conversation about implementing ideas uncovered during the research process. As discussed in Chapter 2, organizational change is a multidimensional process that can vary in scale but always brings a shift to circumstances and feelings. Although multiple components of the change process were covered in the literature review, I have chosen to position the second part of my theoretical framework under the approach of *Balanced Leadership for Powerful Learning* by Goodwin et al. (2016). Again, I have referred to this work as *Balanced Leadership* in this study.

Balanced Leadership is a change theory focused on strong school cultures implemented through the work of purposeful communities. A direct connection to change through an educational lens is critical, ensuring purposeful steps are taken to implement the co-created ideas from design for the long-term, as new environments are leveraged as supportive tools for

learning. In particular, the concept of purposeful communities was a lens used in my work as I explored how these communities form during and after the design process to support change. As discussed in detail in Chapter 2, purposeful communities result from "building a school culture that both supports teachers' professional growth and continuously challenges them to improve their practices" (Goodwin et al., 2016, p. 71). These communities center on a strong sense of purpose and a shared commitment to improvement, building on already established strengths and creating collective efficacy across the staff.

The *Balanced Leadership* approach is highly connected to this study. It incorporates elements of shared vision, varying perceptions of the magnitude of change, and a collective group's work seeking a bright future together. It echoes the constructionist mindset of co-creation, and it parallels the process of change that is an ongoing consideration for those involved in the creation of new learning environments. This tandem framework of co-creation and *Balanced Leadership* change theory impacted the design of the research process and was an essential layer through data analysis. The consideration for these components is discussed in future sections.

Methodological Frameworks and Design: An Evaluative Case Study

This research was designed as a participatory evaluative case study to explore individuals' in-depth perceptions in an educational setting bounded within a singular school district as they participated in a co-creation process to create a new middle school learning environment. First, I begin with a description of general case study approaches, and then explain the importance of an evaluative study through a participatory lens.

Case studies provide a unique opportunity to qualitatively study a situation and its associated meanings to understand the complexity it contains. As Merriam (1988) describes, a

qualitative case study is “an intensive, holistic description and analysis of a single instance, phenomenon, or social unit” (p. 21). The case is not one type of event, but instead is an experience that can be identified within certain boundaries. These boundaries are critical to successful data collection and analysis as cases are typically embedded in an everyday situation, quickly extending into additional scenarios or settings. Creswell (2018) supports this approach as he defines this type of research by including the concept of a real-life bounded system (a case) being evaluated over time through detailed data collection using multiple sources of information. Because data collection can be an arduous process, creating parameters that define the case study’s extents is essential for the researcher to consider. For this study, the case is defined below in the research design section.

Evaluative case studies take the foundational concepts of researching a bounded case but layer in consideration for merit and worth. As Stephen (2003) describes, “The basic difference between evaluation and other forms of social research is that evaluators arrive at conclusions such as “X is a good program or has merit,” whereas other researchers arrive at conclusions such as “X causes Y” (p. 236). Speaking to evaluative studies’ applicability, Stephen (2003) shares they are commonly initiated by government branches with evaluation criteria established based on what a specific audience would value. An example can be seen in the practitioner-based toolkit guiding the use of case studies in the United States Agency of International Development (USAID) evaluations (USAID, 2013). Leaning on the work of Merriam and Tisdell (2015), Stake (1995), and Yin (1994, 2018), the toolkit is rooted in academia but geared toward the professional practitioner. Within the document, case studies are first defined as an evaluation method based on three key elements of interest for the organization. This organization-specific definition and criteria are a vital element confirmed by Stephen (2003) since the constituents will

vary across organizations, along with what they value from a study. In this case, USAID has recognized essential elements of its organization's constituents and has adjusted the evaluative approach to compliment. This angle suggests that evaluative case studies are best suited to explore questions based on *why* or *how* approaches, working to understand how an intervention has been implemented, or how participants made sense of the intervention. Other methods should be utilized when research questions are approached as *how many* or *to what extent*. Since this study is also approached from a practitioner's viewpoint, the confirmation of an evaluative lens parallels this approach as both research questions are an investigation of how educators and designers experience the co-creation and change process, particularly as it connects to the belief-based visioning process. Although an evaluative approach aligns well with my research questions and highlights the practitioner perspectives, it is important to note that this work is simultaneously positioned in extensive scholarship and theory related to social constructionism (including situative perspective), co-creation, and change leadership. Therefore, this study seeks balance between practitioner and scholarly components.

With that balance in mind, participatory evaluation is rooted in basic concepts of participatory action research (PAR) in which research subjects actively engage in the process. As Whyte (1991) describes, "In PAR, some of the people in the organization or community under study participate actively with the professional researcher throughout the research process from the initial design to the final presentation of results and discussion of their action implications" (Whyte, 1991, p. 20). Participants as active members provide the opportunity for the research process to guide future actions through their involvement. Additionally, it creates the ability to link both academia and real-world context. Whyte (1991) further elaborates how "it is either a researcher operating out of a disciplinary/theoretical framework or a person with a real-world

problem stated in everyday language. Involvement of the participant from the research situation in the action research process moderates both these dilemmas" (p. 128). This action-based approach provides a link between academic research and my position as a practitioner doing research critical to my study. A focus on learning and change elements is embedded in my research purpose and questions. Whyte (1991) advocates for a layer of both learning and change in PAR. Participants are empowered to become true stakeholders as they gain insights and understandings that can be applied in the future. They learn how to learn through a research process that is transparent in encouraging them to uncover and apply ideas after the particular research effort is complete. Finally, the author's PAR model incorporates a concept of local theory in which a general idea is applied in a specific context. Local theory creates a situation where those involved gain understanding and apply that to future thought. The generation of local theory is empowering because those who create it learn why things are as they are, and this naturally leads to ideas about change" (Whyte, 1991, p. 138). These participatory components of learning and change also can be seen in the concepts of participatory evaluation.

Continuing the concept of participation in research, Cousins and Earl (1992) call participatory evaluation "applied social research that involves a partnership between trained evaluation personnel and practice-based decision-makers, organization members with program responsibility or people with a vital interest in the program" (p. 399). They advocate for coordinating with key members of an organization to build the skills needed to carry the research process and findings forward, leaning on the researcher as a consultant as necessary. In the case of my study, the principal was a key member of this case study, participating early in the research process and building an understanding of the tools used to continue future efforts with teaching staff. With a mindset of continued growth, the principal can work across the

organization, building a learning mindset with staff. Cousins and Earl (1992) use organizational learning as a theoretical justification for participatory evaluation, saying:

> We believe that participatory evaluation offers a powerful approach to the improvement of educational organizations by creating learning systems that enhance organizational learning and, consequently, lead to better informed decisions. This approach, however, requires a number of predispositions and adjustments on the part of both the organization and the evaluators working with them. (p. 411)

Elements of learning organizations (Senge, 1990) are covered in the mindsets and approach to organizational change covered in Chapter 2 and share commonalities with purposeful communities (Goodwin et al., 2016). Organizational learning is well connected to participation in evaluation efforts, as both the researcher and participants build knowledge together in a social process. Cousins and Earl (1992) emphasize that the organization and the evaluator meet a series of critical requirements for participatory evaluation to be viable. First and foremost, the organization must value evaluation. The organization also must be willing to commit time and resources, be committed to organizational learning and improvement, and have primary users who are genuinely motivated to participate in the process. Although these primary users likely will not have research expertise, they should be willing to build the necessary skills needed to participate along the way. These components are confirmed in my study, as educators are comfortable with the process of evaluation in general and are willing to learn and work together as a purposeful community. From the evaluator's perspective, the authors lean on six critical components for success in participatory evaluation: (a) the evaluator must be trained in research skills; (b) be accessible to organizations for participatory activities; (c) access resources needed to carry out the research process; (d) be willing to teach participants about the evaluation

process; (e) be motivated to participate; and (f) have significant imperfection tolerance. As the principal and I went through several iterations of the belief-based visioning process timeline, working to identify the ideal way to allocate the 75 minutes given for the work session, there certainly was a tolerance of imperfection through this work. In my study, it was imperative to work alongside the principal as the primary participant, allowing the principal to understand the research process early and become familiar with the particular components of visioning that would be embedded. I wanted to clearly acknowledge that the principal's leadership is critical in creating a purposeful community from the very beginning of our work together. It allowed us the opportunity to shape the belief-based visioning exercise in a way that would support the unique staff that would take part in the session and provide the opportunity to carry forward the findings beyond the extents of this study. Certified teaching staff also participated, so we began the visioning session with them, sharing why visioning is essential in a change process and how it can be implemented over time to encouraging inquiry-based skills throughout the research duration process and beyond. By taking a participatory evaluation approach to this case study, I have connected underlying constructionist views of learning to the mindset that purposeful communities can influence organizational change over time.

My selected case is one example of the co-creation process that I commonly experience as a practitioner. It was chosen because it was a design project for a brand-new facility as opposed to an existing facility that would be expanded or renovated. The new project also had appropriate timing for data collection and applicability to the research purpose and questions. This singular case was not selected for the unique characteristics of the situation or the views the participants embodied; instead, it sought a greater understanding of educator mindsets in general (Hancock, 2017; Stake, 1995). Yin's (2018) rationale for this approach supports a typical case

explored to capture everyday circumstances with the hope of understanding the social processes it involves. The co-creation process is rich in social connectivity, and a singular case exploration allowed for the exploration of a real-world context of joint knowledge creation. Yin (2018) recognizes the potential for more variables of interest than data points within case study research and suggests the importance of applying a previously developed theoretical position to aid in the design, collection, and analysis process. By designing my research process through the lens of co-creation and *Balanced Leadership* change theory, I was able to lean on the importance of a constructionist mindset that experiences change as an evolutionary process over time.

Case and Participant Selection

Because of my desire to explore how educators and designers make sense of the co-creation process to create new learning environments, selecting an appropriate case for this study that provided a synchronized design and research timeline was critical. The future construction project's schedule officially began design in January 2021 when certified teaching staff returned from winter break. The subsequent months of early design occurred as planned, despite an unusual COVID-19 environment.

Research Question Support

This study focuses on a Midwestern suburban school district, Shady Bend, working with an architectural firm (AMH) as their partner to assist in designing a new, 500-student middle school that could be expanded to 900 students with future design and construction phases. As opposed to a large renovation or addition, the new-build nature of this project made it an ideal case to study because of the opportunity to support research Question No. 1. Teacher contract time is precious, and not all districts support placing yet another demand on teachers by involving them in the input process as new learning environments are created. In hopes that the

outcome of the activity would live beyond the architectural design process, having the support of the district to convey the importance of the visioning exercise to staff was a valued mindset.

A district guidance team made up of leaders from across Shady Bend convened in late 2020. The AMH team facilitated an interactive workshop with these leaders to understand the can't-haves and must-haves for successful middle school learning in the new facility. There was strong commentary from district leaders about their hopes that this new middle school would support learning in a future-focused way, improving the path for the district overall as concepts could be shared with the additional existing Shady Bend middle school for implementation. Knowing that Shady Bend was interested in discussing new and innovative ideas, paired with their support of the research process, this was an ideal case to explore research Question No. 2, as I worked to understand how district leaders perceive change when creating new learning environments.

Project Approach

The new Oakwood Middle School (Oakwood MS) will house sixth- through eighth-grade staff and students currently located in an existing building that facilitates learning for fifth through eighth grades. With design work commencing in early January 2021, the AMH team leveraged input from the construction manager who would build the newly designed project and Shady Bend leaders to confirm a 23-month schedule to design and construct the new middle school, ensuring a fall 2023 opening. The project was planned to go through early design phases before a public bond issue election in April 2021, which resulted in a successful vote, and the project continued through later design phases. Although the design of the project extended into the fall 2021, this study captured the design phases of programming and schematic design. These early phases of co-creation are part of a typical five-step design process and are critical to

identifying the major components of the building and how the relationships of spaces will work to support teaching and learning. Understanding their relation to the remaining phases is an important element of the bounds of this study.

Bounding the Case

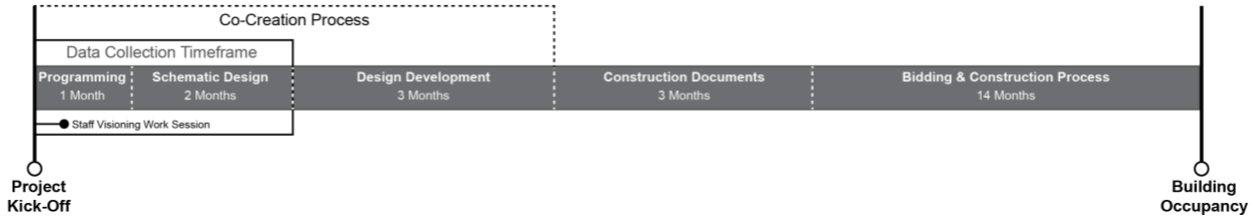
Bounding this case appropriately to ensure a timely data-collection process required defining appropriate limits of the number of participants, the design phases that would be captured, and the data-collection methods used to support the overall research purpose and questions. Yin (2018) shares how bounding a case narrows the focus appropriately and helps to distinguish case-specific data from data that comes from an external context. My research questions have brought contextual views from the Shady Bend school district to layer in with case-specific views of the Oakwood MS new learning environment project. This case-specific vs. contextual data mindset influenced how participants were selected, and data was collected within the time constraints of the design process scheduled by facilities and operations staff. Since the overall schedule to design and construct the new middle school was planned to occur during a 23-month period (November 2020 to July 2023), capturing participant perspectives early was the most important opportunity to explore research Question No. 1. Understanding how these early phases connect to the full co-creation experience is an important consideration to the defined bounds of this case.

The co-creation process, represented in Figure 9, demonstrates a typical design and construction path for a new middle school as teams work from project kick-off to building occupancy. Programming is the first step and, for this size of project, would take approximately one month. Once the space types and general sizes have been confirmed in programming, the design team moves into the schematic design phase. This two-month phase works to establish the

building's essential adjacencies and circulation paths as spaces are joined together to create a rough building layout. This phase is iterative, testing the program defined in the first phase, but works to create the basic shape and form of the building. Next is design development, a three-month effort to make all remaining design decisions. Generally, these are related to aesthetics and specific amenities to support learning. In this phase, the building is explored in three dimensions and virtual walk-throughs are used to help the client make final decisions. The final step in the design process is construction documentation; at this point, the building user input is minimal. These three months focus on creating a set of drawings that will communicate to the contractor exactly how to build the facility.

Figure 9

Design Process and Data-Collection Timeframe



Note. A diagram showing the Oakwood MS design and construction timeline, co-creation process and data-collection timeframe for this study.

Because programming and schematic design phases center on shaping the building's high-level approach toward supporting learning through specific spaces, spatial relationships and physical amenities, the bounds of the case were defined to begin with staff visioning and end after schematic design (see Figure 9). Design decisions would still be made through the next phase, design development. However, these decisions would focus mostly on aesthetics related to design details and material selections. Although phases beyond schematic design are important to the architectural design process in understanding how the building would act as a

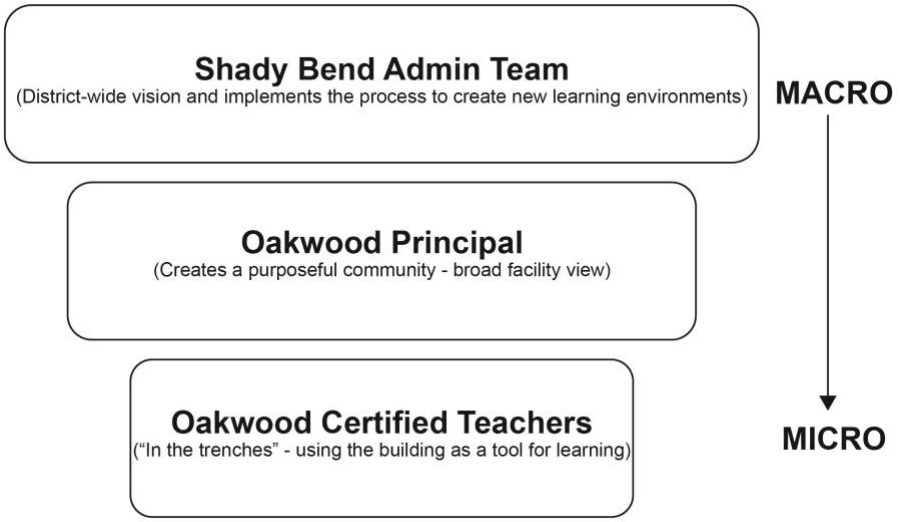
supportive tool for learning — particularly as it relates to the belief-based visioning process that occurs in the early stages of the process — the early phases of programming and schematic design were critical to answer the research questions associated with this study. The involvement of various participant perspectives within the case boundary is covered in the next section.

Embedded Units of Analysis - Macro to Micro View of Participant Involvement

This case study has been designed to consider multiple layers of participant perspectives as embedded units of analysis (Yin, 2018) within the singular case of the New Oakwood MS project. As part of a previous research course, I completed a pilot project to explore various educator perceptions of co-creation before beginning the process of creating new learning environments. Through this research effort, I found that educator role types could be represented in a macro to micro view of how perspectives influence the design process (see Figure 10).

Figure 10

Macro to Micro Participant Perspectives



Note. A diagram of district administration, building administration and certified teacher involvement and their respective impact on the process to collect data.

These three role types; district administrators, building administrators, and certified teachers, became the embedded units of analysis integrated into this research. Since the wide to narrow views of the three roles had the potential to bring differing perspectives to the conversation on change, the micro to macro language is used in place of embedded units of analysis throughout this document.

First, the district administration's view is the most comprehensive consideration, encouraging the inclusion of a district-wide vision and goals for the teaching and learning experience, as well as the operations and maintenance of facilities. In this study, Shady Bend's macro view of organizational change was critical to consider, as a learning organization's mindset must be evident at the top. From my specific practitioner perspective as an experienced leader of these projects at AMH, these district leaders are the gatekeepers of the process to create new learning environments, and their decisions and resulting actions trickle down to specific building leaders and staff. They put the process of creating new learning environments into motion at the very top of the organization, working to balance the district budgets, community perceptions, and internal teaching and learning approaches. Because they are the impetus to the creation of new facilities across school districts and because the ability to support a healthy change process must be supported across an entire organization, their perceptions of change are explored in research Question No. 2, as well as limited participation from district administrators as part of the co-creation team explained in the next section. The principal and fellow building administrators have a broader view of the facility as a whole, bringing an essential perspective on the facility-wide organization and flow, while keeping students and staff safe and comfortable. In my study, it was critical to involve the principal in developing the visioning exercise because the principal's role as an active participant in the research process supported the importance of

building leaders creating purposeful communities, which in turn impacts organizational change. I positioned the Oakwood MS principal as an active researcher, building a critical link to the potential to carry the newly established vision for learning into practice over time. Finally, the teacher's role is "in the trenches," and these essential staff members have the most significant opportunity to leverage the building as an instructional tool for learning. What I discovered through an early pilot project directly relates to my exploration of research Question No. 1 to understand how Oakwood MS certified teachers make sense of a belief-based visioning tool as it relates to their classroom instruction and views of how physical space can positively support learning. Their perspectives are essential consideration for how the concept of a vision can be implemented not only through the co-creation process, but also carried forward as they inhabit the new school setting. Their influence on organizational change is at the micro level. How these unique roles come together to form overlapping teams during the data-collection process is explained in the next section.

Participant Selection and Involvement: Incorporating Unique Roles to Co-Create

Participants within the case were selected based on their ability to add value to the research purpose and questions and fall within the three types of educator roles outlined, or they were selected because of their impact as a designer on the project. Hancock (2017) emphasizes the importance of participant selection based on the convenience of their willingness to be involved and their unique knowledge and opinions, providing essential insights to the topic beings studied. Within Oakwood Middle School's case bounds, I used both district-level and building-level role perspectives in line with the macro to micro model previously presented, as well as the unique voices of the AMH team involved with the project daily. Since co-creation in this case is a combination of educators and designers working together, it is important to

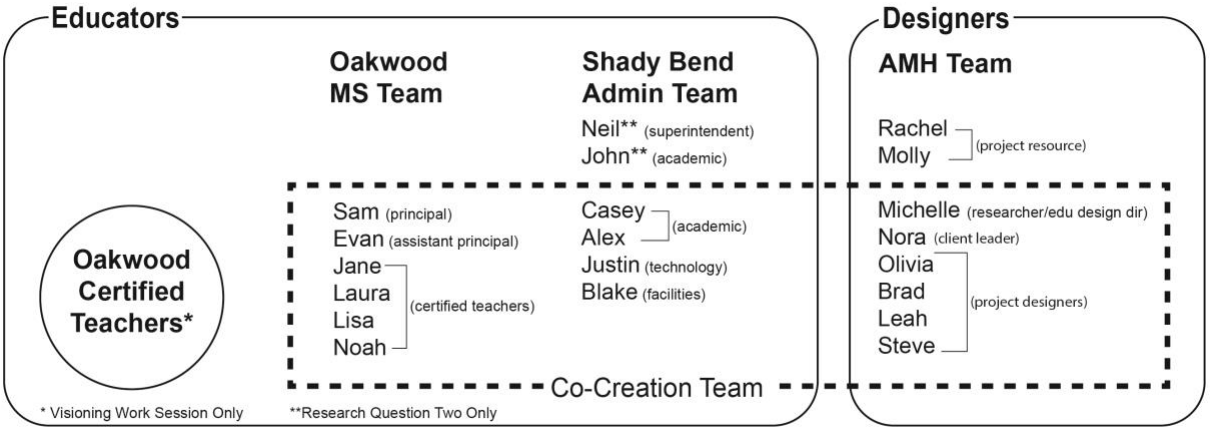
understand how their participation occurred and how their identities were protected throughout the research process.

From my practitioner perspective, it is common practice to form a committee of unique educator roles from across a school district to join in the co-creation process with designers to create new learning environments. These committees typically range in size, are made up of various role types, and are specific members typically selected by district leaders with minor input from the AMH team. Since the research process would mean that some members of the co-creation team would be asked to participate in additional interviews and a focus group discussion, I worked with the building principal to support the selection efforts, ensuring participants chosen would be available and open to take part in the research process. Figure 11 outlines the various participants in the research process, including the educators from Shady Bend and the designers from AMH, and their respective roles and pseudonyms. Participants are divided into two broad, expertise-based categories: educators and designers. The educator title captures each participant from the Shady Bend school district, no matter what level of macro to micro input they provided. The designer title captures each participant from the architectural firm AMH, including myself as a researcher/practitioner.

Four distinct participant groups are outlined in Figure 11: Oakwood certified teachers, Oakwood MS team, Shady Bend admin team and AMH team. These groups overlapped through the co-creation and research process as indicated by the dashed line capturing the co-creation team. The certified teachers at Oakwood MS who participated in the belief-based visioning process but did not continue participation throughout the research process as a full staff are represented in a circle, with no pseudonyms listed since their specific commentary was not used in data representation.

Figure 11

Research Process Participant Groups and Pseudonyms



Note. A diagram of the participants from Shady Bend (educators) and AMH (designers) in the research process, along with what format of data collection they participated in (visioning work session only, full co-creation team or research Questions No. 2 interview only).

The Oakwood MS team includes the building principal, assistant principal and four certified teachers. All members of the Oakwood MS team participated in the co-creation process to design the new middle school. The Shady Bend admin team is made up of two district administrators who participated in interviews as I explored research Questions No. 2 and district administrators who also participated in the co-creation process. These educators had significant input on the design while ensuring that the facility aligned with Shady Bend's learning principles prioritized earlier in the year by the district guidance team. Finally, the AMH team is made up of two project resource roles guiding the project from outside of daily project team experience and six team members who impact co-creation daily. The six team members involved in co-creation were: my role as educational design director, a client leader and four designers working daily on the design process of the new middle school. The AMH design team included a variety of role types with variations in professional history. These individuals were chosen to facilitate the

design process based on their experience levels in the design field, their unique areas of expertise, and their availability to participate in the entire Oakwood MS design timeline.

To answer research Question No. 1, the views of the Oakwood MS certified teacher team and all members of the co-creation team were considered, along with the remaining AMH team members who acted as project resources to support the project design team through their design efforts. To explore research Question No. 2, the Shady Bend admin team and Oakwood MS principal were interviewed. These roles were diverse in their areas of expertise within the district and included various ages and experience levels. Descriptive profiles and participation levels of the various groups and individuals in the research process are described below.

Considering Unique Perspectives: School District and Individual Participant Profiles

To provide a window into the unique perspectives the participants brought to the research process, I will share a brief profile of the school district, as well as the individual educators from Shady Bend and the designers from AMH.

Shady Bend School District: A Small-Town Feel with Traditional Roots

The Shady Bend School District is founded on tradition. With a singular mascot representing each of its eight current buildings, there is great pride in every student and staff member being a Viking. They promote a friendly, small-town atmosphere close to the city and proudly share a district-wide vision, mission and set of values with the community. Calling themselves a “Quality Continuous Improvement Organization,” the district has utilized the foundational elements of the Baldrige framework (“Baldrige performance excellence program,” 2021), while layering in a systematic approach to continuous improvement of teaching and learning for nearly 10 years. Shady Bend district administrative staff are organized into five

areas: governance, business and finance, communication, personnel and operations, and academics and continuous improvement.

For this research, governance, operations, academics, and continuous improvement were critical views to incorporate. The Shady Bend admin team interviewed for this project spoke openly about the tradition embedded in the district and the viewpoint that families speak highly of their student's educational experience. As one of admin team explained, "In our district, there's a tremendous amount of pride and tradition and, in fact, it's even on some of our logos and words." Shady Bend's spirit of tradition translates beyond artifacts like a universal mascot; it also reaches the expectation of families residing in the district. These community members are vital to Shady Bend's ability to maintain and build quality facilities through bond issue support. Neil, one of the district administrators, said, "The demographic is changing some, but by and large, our parents expect us to deliver the basic educational services and do that really well. So, most of our parents want their kids to receive a traditional experience." He was not alone in this commentary, as the district superintendent echoed, "Growing as a one high school, suburban school district, our families tend to be less risk-averse; they're more looking for that small school district experience. And I think that lends to being more conservative for whatever reason." These views may not be uncommon compared to districts with a similar profile, yet the geographical shape of the Shady Bend district boundary provides a unique layer of consideration.

Coming into the research process, I didn't expect any geographical characteristics of the district to impact the data collected. However, as my interviews grew in number, I found both district administrators and certified teachers commenting on disparities that are directly connected to the shape of the school district boundary. Shady Bend's uniquely shaped district boundary clusters the facilities in two separate areas with six of the eight buildings, including

Shady Bend's only high school, located in the northwestern quadrant. The south side of the district includes one elementary school and the current Oakwood MS facility. Once the new Oakwood MS facility is built, the south side of Shady Bend will feature three separate schools, all serving kindergarten through eighth-grade students. Although the population in the south is growing, it includes a higher number of transient students and families who fall into a lower financial demographic than those to the north. Combining the demographic differences with the disparity in district amenities resulted in the Oakwood staff who were interviewed sharing their perception of Shady Bend as the land of the haves and have-nots. Laura, a middle school teacher, captured this feeling, saying, "I know that we have a lot of teachers, and even some students and definitely some families who feel like we are, for lack of a better term, the red-headed step-child of the district because of a lot of things… because of the socio-economics of part of our district, because of our transient population, because of the diversity of our population in comparison to the other Shady Bend schools." A fellow teacher, Jane, echoed this sentiment, but also mentioned the opportunity for the new facility to bring a positive shift, explaining, "Sometimes there's a general overall feeling down here in the south end that maybe we get the short end of the stick in a lot of ways, not just with our facilities, but with other things, and so I think moving into a space like that, I think is going to positively impact the feelings and the emotions." Jane wasn't the only staff member with this mindset. Although these teachers grapple with the perception of their identity in the school community, their views were consistent regarding the opportunity at hand. The inclusion of a new facility in the southern area of Shady Bend would provide a chance to shift that identity. Noah shared another classroom educator's view, saying, "I think that the new school would definitely help out as far as the comparison goes, as far as that equality and not necessarily being a demeaning thing to be from Oakwood MS, if that makes

sense." From a practitioner's perspective, each school district I work with is unique in its approach to learning, the makeup of community members, and past experiences. Leveraging the unique ideas from all involved and creating a custom design approach and solution help make the co-creation process to create new environments for learning successful. These unique ideas come straight from the staff, students, and community members who make up the school district. To understand the data presented, it is also critical to understand their unique participant profiles.

Shady Bend Administrative Team Member Identities

The Shady Bend district is led by John, serving as the school district superintendent for more than a decade. Beginning his career in a rural school district's music and art classrooms, his time was short before moving to a larger suburban school district, now a peer district, to his current home. He served in various building and district leadership roles before taking the helm in Shady Bend. Recently, he announced his retirement, planned for 2022. John has built a team of district support staff with varying focus areas collected under two main umbrellas of academics and continuous improvement and personnel and operations.

Four district-level administrators interviewed for this study work under the academic umbrella and one under operations. Academic administrator's viewpoints included in these findings have various focus areas centered around continuous improvement and student support. Each of these administrators came to Shady Bend at different points in their respective careers and brought unique perspectives, including teaching in special education classrooms, teaching at an international boarding school, and coaching collegiate athletics. Their mindsets on growth and change are shared in future sections, but overall, each of these individuals supports the idea of continuous improvement to bring positive change to Shady Bend.

Although a portion of the Shady Bend admin team was active during the co-creation process and subsequently provided perspectives to help answer research Question No. 1, each of them also provided an important view of organizational change at the macro level, providing commentary on research Question No. 2. The data collected from these individuals for research Question No. 2 could be considered contextual, as it connects to the new middle school project and explores the mindset of organizational change at the district level overall. However, in the change process, exploring these more comprehensive views was imperative to understand how the building principal and certified teaching staff's unique views can be shaped by the perspectives and actions of those individuals implementing the district's direction overall.

Oakwood Middle School Team Member Identities

Oakwood MS building-level staff are led by Sam, a careful thinker who is relatively new to the position, having been a building principal for less than three years. Always searching for a way to communicate back with his staff and build a more cohesive culture, he is focused on making an impact through his role and fostering healthy relationships. Unfortunately, the COVID-19 pandemic has kept him from being brought into the fold of district leadership in an entirely purposeful way, which could be seen in some of his commentary about district-level conversations potentially happening without his knowledge. He explains, "I just hope HR, and I hope that district leadership, are having a conversation… There are a lot of unknowns. I guess my fear is, I don't know. Maybe those conversations are being had, but I'm not a part of them." This potential disconnect was reinforced when talking about Sam with one of the Shady Bend admin team, saying:

> We've done him a disservice because not only do we not know him, he doesn't know us. It's the pandemic, too, but he hasn't had that opportunity. He's had maybe two

> interactions that have not involved a ‘Hi, how are you?’ with [our top leadership] and in a district our size, that’s not okay.

Sam’s focus on a positive culture and opportunities to build relationships with his staff through this research process was evident and can be seen in his efforts to create an unbiased approach for the selection of the four teachers who would serve on the co-creation team. Sam was excited to actively participate in facilitating the research process to collect data through the belief-based visioning activity outlined in Question No. 1. He saw value in the opportunity to build relationships, create cohesion, and identify a voice that could carry staff through their professional learnings before and after the building was created. Several weeks before the visioning session with the certified teaching staff, Sam and I met to review the draft work session outline (see Appendix G) to identify how it would align with his staff availability and preference for facilitation. During the planning meeting, Sam shared that the work session would need to occur within a regularly scheduled 60-minute staff meeting. Knowing that the time would be extremely condensed, we agreed that asking the teachers to stay an extra 15 minutes was reasonable, and we adjusted the approach to accommodate. We had several options to create small breakout groups, and Sam felt an interdisciplinary approach would be best. He proposed positioning the four certified teachers who would serve on the co-creation team as group leaders, along with himself and Evan, the assistant principal, who also would lead groups during the certified teacher work session. Sam felt this would bring the greatest impact to each staff member as they heard the voices of their peers not often experienced in their grade-level teams. We created an adjusted approach for the work session (see Appendix H) and communicated via email for the remaining adjustments. As a test, Sam completed the individual reflection component of the activity (see Appendix I) early and found that the time was too rushed.

Working together, Sam and I reshaped the allocation of the 75-minute session to provide more time for individual reflection and small group work and less time for the large group sharing. Sam's participation in developing the visioning exercise was critical to help the staff feel comfortable supporting the concept with their active participation. His thoughtful approach to communicating concepts to his staff is explored later in Chapter 4 through the data collected to answer research Question No. 1. Understanding the makeup of the Oakwood certified teachers who stayed involved throughout the co-creation process is important to consider as data is reviewed in the next chapter.

The four certified teachers from Oakwood MS who were selected to participate in the co-creation team represented unique areas of the middle school curriculum in both general education and elective content. Most of the teacher group have been at Oakwood MS for more than 15 years and have seen a school culture built through and around them in the existing building. One of those teachers even graduated from Shady Bend High School, spending an entire career in the district. As a result, the teacher group brought a long-term and traditional perspective of Oakwood MS to the co-creation team interactions. In contrast, one of the teachers involved in the study has various past teaching experiences and has recently returned to Shady Bend after a multiyear gap spent teaching at another school district. Their mindsets on flexibility and change were seen as contrasting views throughout the research and design process. The building-level educators grappled with facility concepts that would provide new and different spatial opportunities, supporting a flexible approach to teaching and learning. As part of the research process, these four certified teachers were interviewed after the visioning activity, as well as after the completion of the schematic design process. Their participation in the co-creation efforts of the new middle school continued until the end of design development, when

the Shady Bend admin team carried the project forward to clarify details through the completion of construction.

AMH Team Member Identities

The final group of individuals influencing the co-creation experience was the AMH team. The outcome of the belief-based visioning process impacted this team as they worked to create a facility to uphold the learning beliefs the Oakwood certified teachers had established, so it was critical to include their views of the visioning process as part of research Question No. 1. Although eight members of the design team participated in the research process because of their unique roles and areas of expertise, their involvement varied throughout the duration of design.

Working through the co-creation process were four project design team members, one client leader and my role as educational design director. Two additional design project resource roles supported the team. Everyone involved came into the design effort knowing a new visioning tool would be introduced as part of the research and design process. Five AMH team members on the co-creation team focused on the day-to-day design efforts. This daily project design team was comprised of a client leader with significant knowledge of the co-creation process of educational environments, two architectural project leaders each with less than five years' experience designing learning environments, a designer with several years more experience and an entire career spent designing schools, and a recent college graduate who was experiencing the complete co-creation process for the first time with this team. In addition, three leadership roles provided support to the design team. My practitioner role as educational design director was complimented with my counterpart in this focus area of the firm, who also has a seasoned design past and commitment to education. An office-wide design resource was provided to ensure the process and outcome would hit the high standards of design expected

within the firm. These resource roles are leveraged on design projects of almost any size at AMH and are critical to bringing a macro view of the design process to each project. These individuals have seen many unique examples of how design and client engagement processes have been shaped and evolved to suit varying timeframes, meeting approaches, and client perspectives. With this in mind, along with their views in the research process, I evaluated the new visioning tool.

The AMH team was a collection of individuals who had not worked together in totality on a project in the past, so the dynamic was one of simultaneously designing a building and learning personalities and preferences for communication and teamwork. Because the number of projects in which each of these designers had participated varied before this experience, there was a learning curve as the group worked to become comfortable with how the new visioning tool would influence the co-creation processes in which they were a part of in the past. As mentioned in the description of the design process in this chapter, their approach to design while learning the skillsets and preferences of each other was iterative, swirling back at times as they worked to regain forward momentum with each new concept.

Research Site

Shady Bend facilitates learning for more than 4,200 early childhood through 12th-grade students in eight separate facilities. Two middle schools currently exist within the district. An existing middle school on the north side of the school district welcomes students in sixth to eight grades, and Oakwood MS on the south side of the district welcomes students in fifth to eight grades. As the district continues to see growing enrollment numbers, it requires more space for elementary learning. The Oakwood MS facility will transition to an elementary building when the new middle school, featured in this research, is created on a nearby site.

Due to the unique environment the COVID-19 pandemic created, data collection that was planned to occur at the existing Oakwood MS facility instead occurred via a digital format using Google Meet. Although it is typical in the design process to conduct stakeholder meetings at the project site if it is an existing facility, only one of the early programming meetings took place in person. To explore research Question No. 1, I facilitated the visioning session as part of a regularly scheduled staff meeting using Google Meet, with breakout rooms used to provide an atmosphere of small-group collaboration. Meeting virtually was not unusual for the Oakwood MS staff; each of their staff meetings for the fall semester took place using the same digital platform due to the pandemic. Individual interviews also were facilitated using Google Meet, which was in line with Shady Bend's desire to keep staff members safe. Hancock (2017) encourages a quiet, private and distraction-free space to ensure a comfortable interview environment to increase the likelihood of gathering high-quality information. With this in mind, I ensured that my virtual setting was free of noise, well-lit and had a neat, tidy background. Each of the participants interviewed virtually met with me from their respective private spaces for a quiet and distraction-free environment.

Membership Role

In all forms of membership, I needed to acknowledge my subjectivities as a researcher when exploring both of my research questions. As a designer who works closely with educators because of my specialty in learning research, I came into the research process with more than 16 years' experience working to connect the fields of design and education. I have had the opportunity to form long-lasting relationships with clients, which has spanned multiple years and included various projects. My professional career has been an evolution throughout the years, shifting from the traditional role of architect leading the design process to coordinating teams of

designers working together, and to my current combination of roles as both an advocate for the connection to learning and as a partner and business owner. My full career has been with AMH, so my perspectives are limited to the processes established through this lens. With AMH's focus solely on learning environments, I have experienced many projects of varied size and scope. Throughout the research process, I acknowledged the assumptions I brought based on my previous experiences with educators and considered the influence of those assumptions on collecting and analyzing data. Reflections from my perspective as a practitioner and researcher are included in Chapter 4, as I present the findings while acknowledging the subjectivities I brought to the research process. This allows for the reader to better understand the full interpretive context and is an intentional way to bring transparency to the research process to enhance the trustworthiness of the research.

As a formally trained designer who waded into the depths of educational leadership topics through my doctoral work, my membership role in this research was as an insider who takes a blended approach between peripheral and active positions in the process. Adler (1987) shares that taking on membership status rather than a detached observational approach provides a more naturalistic experience where the researcher can participate in the member's routine practices and is accepted as one of their group. My professional role as educational design director means I am typically heavily involved in the early design phases of projects, engaged in conversations about learning approaches, facilitating interactive exercises, and leading meetings. Although team members lead the overall architectural design process, co-creation reinforces the work we do with educators with the mindset of togetherness to extract the best ideas from everyone involved. In these situations, I am very much in the middle of the action, forming

relationships or leveraging existing ones as I deal with the practical problems educators face in their environments.

In the case of research Question No. 1, my membership was an active role. I directly connected with the Oakwood certified teachers as I co-facilitated the belief-based visioning process alongside the principal. This direct connection supports Adler's (1987) description of active membership, including participation in the group's core activities, interacting as colleagues, and co-participating in a joint endeavor. Active membership has a critical link to participatory evaluation in the case of joint facilitation of the visioning activity with the principal. My role continued to be active as the participants narrowed to the co-creation team, as the design process (see Figure 9) begins with programming. Programming is one of the first steps of the design process, during which the necessary spaces and associated sizes are identified. This portion of the process is mainly discussion-based and relies heavily on understanding how the building can perform as a supportive tool for learning. Although a designer with experience in educational projects facilitated the meetings during this phase, my role was woven into the experience as I engaged in conversation with teachers and administrators about the learning experience. As I was actively engaged in early design meetings, my observation of mentions of the learning belief statements in descriptions of experiences and spaces came through the review of transcripts and personal notes.

My membership role shifted from active to peripheral as I explored research Question No. 2 on organizational change. Adler (1987) shares these peripheral members "interact closely, significantly, and frequently enough to acquire recognition by members as insiders. They do not, however, interact in the role of central members, refraining from participating in activities that stand at the core of group membership and identification" (p. 37). My peripheral participation

sought district-level participants' perspectives through interview-based dialogue about their understanding of organizational change and the opportunity for co-creation to bring impact.

Data Collection

Data collection in the qualitative case study process is shaped by the researcher's theoretical perspective and can span multiple methods. These collection methods can include interviews, observations, and document analysis, and have a critical commonality of the researcher as a critical influencer of the instruments, either collecting data personally or designing instruments with an open-ended approach (Creswell, 2018). For my study, data was collected in the forms of documentation, interviews, focus group discussions, and design process observation, as shown in Table 1.

Table 1

Data-Collection Inventory

Data Type	Data Source	Content Collected	Areas of Interest	Associated Research Question
Observation & Documentation	Oakwood MS certified teachers	Digital recording of full staff visioning session + Partial collection of individual reflection worksheets	Observation of visioning work session for full staff + one small group discussion	#1
Individual Interview	Oakwood MS Principal + 4 Certified teachers (co-creation team members)	Digital recording + associated interview transcripts	Understanding of how the visioning work session was percieved by Oakwood staff	#1
Observation + Documentation	Co-creation team (10 educators + 6 designers)	Digital recording + associated transcripts of (4) design meetings + Final Visioning Document	Understanding of how the visioning topics were incorporated by both designers and educators into creating and adjusting the schematic design of the new MS	#1
Individual Interview	Oakwood MS principal + 3 certified teachers (co-creation team members)	Digital recording + associated interview transcripts	Understanding the experience of the educators particpating in programming process	#1
Focus Group	Oakwood MS principal + 4 certified teachers (co-creation team members)	Digital recording + associated focus group transcript	Understanding the experience of the educators particpating in the co-creation process as they look toward the future when they'll be teaching and learning in the new facility	#1,#2
Focus Group	8 AMH team members	Digital recording + associated focus group transcript	Understanding the experience of the designers faciltating a unique co-creation process as they dialogued together about utilizing the visioning tool as a new resource for connecting with the Oakwood team	#1
Individual Interview	2 AMH team members (project design) + 2 AMH resource roles (design + education)	Digital recording + associated interview transcripts	Individual interviews to understand the influence of the learning belief statements on the typical design process as well as the opportunity to influence the design supporting educational concepts	#1
Individual Interview	Shady Bend Superintendent + assistant supt (personnel/operations) + director of acedemic Services (secondary) + executive director of pupil services + executive director of operations + Oakwood MS principal	Digital recording + associated interview transcripts	Individual interviews to understand the opportunity to infuence organizational change within school districts as new environments for learning are created	#2
Analytic Memos	Researcher	Reflective writing	Reflective writing during data collection and analysis to make sense of practitioner/researcher perspectives and emerging themes	#1,#2

Note. This table represents the data-collection approach taken to include observation, document collection, interviews, reflective writing, and focus-group approaches.

Although I intended to collect data in person, COVID-19 required a shift to nearly every experience with Shady Bend being virtually. By the time the research process began, this was commonplace for the Shady Bend staff, as they had worked most of the fall semester 2020 in a hybrid format, leveraging fully virtual settings when needed to protect student and staff health. Using Google Workspace for Education, staff and students had become comfortable collaborating through virtual calls, sharing documents and utilizing shared calendars.

With the data-collection process beginning during a time of continued uncertainty, during which most staff were still more comfortable meeting virtually, a fully virtual format was continued to keep everyone safe and comfortable. I used Google Workspace to facilitate interactions between the co-creation team, as opposed to Zoom, to ensure priority was placed on the ease of connection for the educators during data collection. Using Google Meet, recordings were made of all interviews, focus group discussions and co-creation team meetings with transcripts then created from the recordings. For the Oakwood certified teacher visioning work session, Sam and I discussed several different digital tools to allow small groups to work together while also having the opportunity to share back with the full staff. After testing out both Padlet and Google Sheets, it was decided Google Sheets would be most comfortable and make the most of the short timeframe for the small group leaders during the work session.

Only one programming meeting took place in person, and a shift was made to go back to virtual at that time. At several points during the data-collection process, we revisited the conversation about in-person vs. virtual meetings. Each time, it was decided that continuing with a virtual approach would allow for the most flexibility and comfort for the unique personalities

that made up the co-creation team. From my practitioner perspective, this was not an unusual situation given the pandemic circumstances. Most design projects across AMH were being facilitated similarly, using tools like Zoom, Microsoft Teams or Google Meet to connect groups of educators and designers. Although it presented a unique learning curve for the AMH team to adapt to fostering conversation and "reading the room" in a virtual setting, teams across the office did their best to build trust with the client and facilitate a successful design process. I saw the Oakwood MS co-creation team make good use of the chat function of Google Meet, sharing verbally while interjecting typed dialogue. The shift to a fully virtual format was not what I had anticipated for this research, but the data-collection and analysis process was adapted to focus on the essential elements of exploring research Questions No. 1 and No. 2 and make the best of a calamity that was impacting not only this research process but the global society as well.

Documentation

Individual worksheets were developed (see Appendix I) for completion by Oakwood certified teachers during the visioning work session. These sheets were physically provided to the staff, although the remainder of the work session took place virtually. The original intent was for the entire session to be in-person and to collect the individual worksheets at the end of the session. These documents would have been scanned and returned to the staff later, allowing analysis of the individual to small group efforts to occur from the copies. However, the virtual format of the meeting provided a challenge for collecting this documentation. With the virtual session ending in a rushed manner due to lack of time overall, the principal instructed the staff to drop off their worksheets to the front office at their convenience by the end of that week. I visited the school to pick up the physical copies to find that about half of them had been returned. With this incomplete dataset and a realization that the most critical information already

had been gathered within the Google Doc format, I shifted my data-collection approach of the Oakwood certified staff visioning work session to fully digital data.

The process of the Oakwood certified teachers to individually reflect using their worksheet packets translated to small group discussions and the completion of small and large group Google Sheets that were discussed at the end of the visioning work session. The draft learning belief statements were discussed as part of the first co-creation team meeting. By incorporating dialogue from that meeting, the AMH team was able to create a final belief-based vision statement sheet to guide the remainder of the co-creation process (see Appendix J). This document not only became a staple during co-creation discussions, but I also found it was essential to my work in exploring research Question No. 1. The single page document captured the final learning belief statements of the full staff and mentioned the elements supportive environments should include to support those beliefs. This document assisted in creating the coding structure that was used to analyze the belief statement content included in interviews, focus group discussions and design meetings.

Interviews

For all 19 interviews conducted during this study, a formal semi-structured approach was utilized. This interview method allowed for the preparation of consistent questions to guide the discussions with probes identified for follow up (Bhattacharya, 2017). Informed by the work of Spradley (1979), I utilized the multiple interview question types described below as I explored my two research questions to reduce boredom during the interview process and keep the conversation free-flowing and friendly.

Descriptive Questions

Descriptive questions are used to generally explore a scene or experience and can be further broken down into five primary types, one of which is described below. Although descriptive questions can be broad, more detailed questions can elicit a detailed response. Spradley (1979) says, "Expanding descriptive questions not only gives informants time to think, but it says, 'tell me as much as you can, in great detail'" (p. 86). For research Question No. 1, descriptive questions allowed for participants to reflect on the creation and use of learning belief statements at multiple points in the process. For research Question No. 2, descriptive questions were critical to understanding Shady Bend administrators' broad perspectives of change processes. I was careful to include detail within the questions and clarify any confusion as necessary to gain a more specific understanding of the participants' experiences and feelings during the co-creation process and how change has been experienced and facilitated at Shady Bend.

Specific Grand Tour Questions

As one type of descriptive questioning, grand tour questions can take a researcher through a series of events through the participant's eyes. Spradley (1979) recommends several variations of grand tour questions, with specific grand tour questions homing in on a very recent series of events. In the case of research Question No. 1, I utilized specific grand tour questions when I asked Oakwood MS team members to reflect on their recent experience of the belief-based visioning process.

Structural Questions

Moving beyond what Spradley (1979) describes as the friendly conversation of descriptive questions, structural questions shift the conversation into participants sharing more detail about their environment's structure.

> Explaining the nature of structural questions will often take the form of examples. For instance, the ethnographer can take some familiar domain, possibly one shared with the informant, and use that as an example to make clear the nature of a structural question. (Spradley, 1979, p. 123)

In the case of research Question No. 2, structural questions allowed me to shift from a general understanding of the Shady Bend admin team's understanding of organizational change to how those elements of change are incorporated into their specific district environments.

Because participants' perspectives might influence their co-creation mindset, I left ample space in each interview for unexpected deviations in conversation to occur, and I found participants leveraged the space left in unique ways. Hancock (2017) supports this approach to allow interviewees to freely express themselves while avoiding the potential for topics solely from the researcher's perspective. Final interview guides for each interaction outlined in Table 1 can be found in Appendices A-D. As each interaction was virtual, interviews were captured via Google Meet recordings. I uploaded the audio files into Scribie.com for transcript generation. Upon receipt of the draft transcript, I thoroughly reviewed the content, backchecking information against the video files as needed to ensure accuracy and confidentiality. This process also allowed me to stay close to the data throughout the collection process before importing into NVivo for analysis.

Focus Group

To complement and expand the individual interview process, I brought the Oakwood MS team together, utilizing a group discussion to reflect on the co-creation process experience, as well as gather their thoughts about the transition into the future facility. This shared discussion, modeled after Krueger's (2000) focus group method, supported the mindset of co-creation, rooted in a constructionist view of knowledge creation while providing an opportunity for the educators to make meaning of their experiences together. We had to flow from a co-creation meeting into the focus group discussion because of the availability of the certified teachers and the meeting before running long. Unfortunately, this meant the discussion was cut short. However, in the condensed time we did have, the educators had the opportunity to discuss elements of the new building that excited them and discuss the process to navigate the upcoming move to the new Oakwood MS. Although this group was not the full co-creation team, it did include the voices of staff who would experience the change process of moving to the new facility. As Krueger (2000) suggests, "Smaller groups are preferable when the participants have a great deal to share about the topic or have had intense or lengthy experiences with the topic of discussion" (p. 74). The 30-minute group discussion took place virtually, using Google Meet to record the session. As suggested by Guest (2013), a discussion guide was developed (see Appendix E) with questions organized by topic area. It included transition approaches to keep the group on track during the allotted time and was modified to allow for the condensed time allotment. The group discussion allowed for the expression of unique perceptions while making room for ideas to emerge from the group, further supporting a constructionist approach to knowledge development. Since research Question No. 1 also explored the perceptions of designers as they implemented the new visioning process, the AMH members of the co-creation

team also were brought together to explore their thoughts at the end of schematic design in a focus group. The 60-minute conversation was facilitated using the discussion guide found in Appendix F. The designers used the entire 60 minutes to openly share their frustrations, excitement, and curiosities with each other in a free-flowing conversation.

Participant Observation

Data collection for this study occurred as part of a typical design process to create a new learning environment, using co-creation meetings to collect information. In typical settings, the designer also acts as an observer, scanning the room for side conversations, obvious body language or shifts in attention as they work to engage everyone present in the co-creation process. This approach aligned well with the concept of participant observation as part of the research process. DeWalt (2011) describes participant observation as a data collection and analytic tool where the researcher observes or takes part in the activities of those being studied. Although the co-creation process was typical in regard to the timeline, it was certainly atypical due to the need to host all interactions virtually while the district navigated the pandemic. Without the opportunity for in-person observation, I instead relied on recordings of each meeting, observing the minor body language I could see on small video windows, as well as the type and frequency of interactions between the designers and educators. This process was utilized for the full staff visioning session as I explored research Question No. 1, looking and listening for important interactions in the visioning session's small and large group activities.

As research Question No. 1 was further explored when the design process shifted into programming (see Figure 9), my participation was moderate. I occasionally interacted with participants during meetings; however, as they explored the components of the project, most of the interactions were between the AMH team and the educators (DeWalt, 2011). My

observations were focused on the interactions of these two unique roles as they dialogued about the learning experiences teachers would like to facilitate. I looked for moments where learning belief statement concepts were incorporated into the design process and conversation. Leaning on my practitioner experience in early design phases as a baseline of typical occurrences, I also worked to incorporate a scholarly approach toward observation. Bhattacharya (2017) provides a list of tips and tricks for observation that includes graphically mapping the space and identifying specifics, such as how groups are gathered around important objects. She encourages documenting hunches, emotional reactions, and subjectivities along the way and keeping an accurate timestamp of events as they unfold. Although I was unable to document some of the critical moments for observation because of our adapted format, I was able to make notes of reactions and hunches as the meeting was live. Questions generated in the observation experiences were further explored as I reread the data in transcript form and through member checks during individual interviews with the co-creation team members (DeWalt, 2011). By leaning on my practitioner experience and specific research protocols, I was able to act as a purposeful observer in a virtual setting while still maintaining a vested interest in the overall co-creation process.

The belief-based visioning work session and co-creation meetings were digitally recorded using Google Meet. Although there were many participants in the visioning session, the Google Meet link only recorded one of the small breakout rooms. I was able to transcribe the interactions of this single small group, as well as the large group. This approach was consistent for co-creation team meetings. While conversations typically overlap during in-person settings, the virtual environment allowed the opportunity to capture clean dialogue in recordings and transcripts, as well as to utilize the chat discussion as an additional layer of understanding.

Data Management

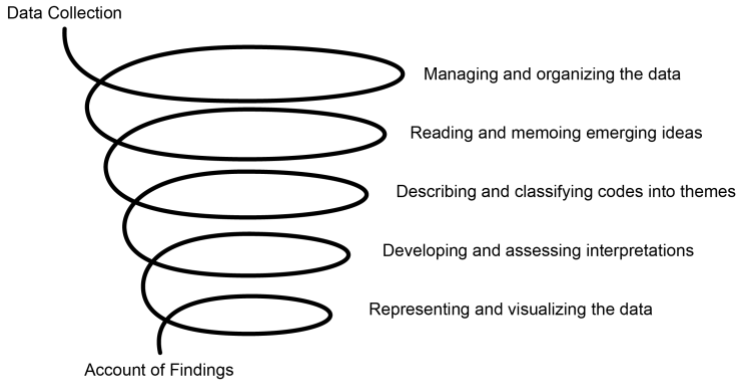
All data was collected during the first half of 2021. I recorded all interactions using Google Meet and immediately downloaded the digital files onto a password-protected computer after the session was complete. Each meeting, focus group discussion and interview was transcribed via Scribie.com, and text files were kept on the same password-protected computer. Only the researcher had access to the password-protected computer where files were stored. NVivo software was used to store and analyze all data collected during the research process. All raw data will be stored for three years, after which digital files will be deleted.

Data Analysis

Data analysis is a process that occurs from the moment the data-collection process begins and is iterative, circling back to revisit concepts and ideas multiple times. Creswell (2018) describes the process of data analysis as a spiral (Figure 12), where collection, analysis, and representation are not distinct steps but instead coincide within the process.

Figure 12

Creswell's Data Analysis Spiral

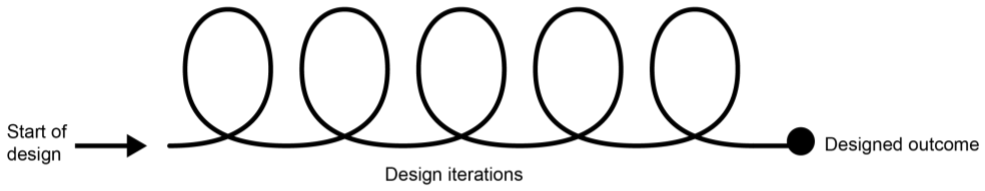


Note. A data analysis spiral as described by Creswell (2018, p. 185), where the researcher moves in analytic circles as opposed to down a linear path.

The concept of design iteration can be envisioned as a linear swirl (see Figure 13), similar to the frosting on the top of a Hostess cupcake, where it is not uncommon as the concept evolves to back up at points in the process to revisit early ideas and reincorporate previous thoughts and components. The key to a successful iterative process in design is ensuring that as small backsteps are made to confirm and evolve ideas, the process still has positive forward momentum overall.

Figure 13

Design Process Iterations



Note: A diagram to represent the forward motion of the design process while allowing for iterations and small steps backward as concepts are refined and moved forward.

As I coded, created categories, and wrote analytic memos to explore common themes, I took this same iterative approach to my data analysis, moving through a series of cycles to consider angles from both the practitioner and researcher perspective. Stake (1995) supports this multi-phased approach, speaking of analysis as being both an experience of direct interpretation and an aggregation of instances until clarity is seen. As the researcher explores the behavior, issues, and context within the case being studied, the analysis process is a search for patterns and consistency. My data analysis took both an inductive and deductive approach, not starting with any preestablished hypothesis, but rather looking at raw data to form chunks of information from initial coding. I investigated themes and then back checked those themes against the data

(Bhattacharya, 2017; Creswell, 2018). Included in the initial review of data were journal entries I recorded during the research process, which allowed me to reflect on my thoughts and questions as a researcher along the journey.

Using NVivo software, I set up my research file to foster clear data organization and analysis by assigning cases to each of my participants. Cases provide an opportunity to collect both qualitative and quantitative data about an entity in one location (Jackson & Bazeley, 2019). All cases were classified under the category of people, and attributes were applied to each case. I noted attributes of gender, professional role, and years of experience in current role. These attributes allowed for the ability to quickly filter or compare data via queries through second-cycle coding. With my NVivo file organized, I began the process to code all collected data. My coding approach was a multiple-step process outlined by Saldaña (2016). Codes capture large amounts of data as smaller, descriptive chunks, as Saldaña (2016) explains that "a code in qualitative inquiry is most often a word or short phrase that symbolically assigns a summative, salient, essence-capturing, and/or evocative attribute for a portion of language-based or visual data" (p. 3). First-cycle coding for both research questions was completed using an in vivo approach, which is the process of identifying "the direct language of participants as codes rather than researcher-generated words and phrases" (Saldaña, 2016, p. 74). Since research Question No. 1 sought to understand how certified staff and principals made sense of a belief-based visioning process, prioritizing, and honoring their voices was critical as I looked for salient words and short phrases that described their experiences. This approach also aligned with the situative perspectives that each person brought to the co-creation process. Their unique views, formed from past experiences, were brought forward during conversations as the group worked to form new meanings together.

Transcripts of design meetings provided an opportunity to analyze the interaction and dialogue between designers and educators, and I was hopeful that process coding the conversations captured would provide an additional layer of first-cycle analysis. Saldaña (2016) references this type of action coding as appropriate for searching for routines in human life. In the case of applying this coding approach to design meetings, I was looking for action words to connect the co-creation team's hopes of supporting the learning experience with newly designed space. Instead, I found a process coding approach did not provide enough context to the perception of the learning experiences each participant was working to describe and was potentially misaligned with the language used in the visioning efforts without this context. I shifted my approach back to in vivo coding, recognizing that a code structure built off the final learning belief statements would provide an opportunity to evaluate the outcome of the visioning experience as an effective tool for communication during the design process.

Connecting to the *Balanced Leadership* portion of my theoretical framework, as I completed first-cycle coding, I also looked for mentions of concepts that aligned with the four characteristics of purposeful communities (Goodwin et al., 2016). These characteristics include (a) a purpose and outcome that matters to everyone; (b) a commitment to consistency and processes; (c) building on strengths; and (d) the belief that a positive attitude and hard work can bring about change. These codes came from individual interviews where the concept of purposeful communities was directly discussed, as well as language used in design meetings when educators spoke to the future facility design and use. In addition to codes related to purposeful communities, I also reviewed data for codes related to the varying magnitude of change described by Goodwin et al. (2016) as first-order and second-order change. This acknowledgement of change was in direct alignment with my theoretical perspective and allowed

for exploration of how participants came to the design process with different foundational beliefs about the difficulty that change can bring.

During the first-cycle coding process, as I reviewed transcripts, I regularly wrote analytic memos about my initial reactions to both the collection process and final data extracted. Saldaña (2016) advocates for pausing and immediately creating memos on theory, research questions or expanded thoughts on codes whenever anything significant comes to mind during data analysis. This practice provided the mental space to explore my own thoughts as I read the words of others during this in vivo coding analysis and provided an important connection to my second cycle of coding. The ability to code memos and direct dialogue from the transcripts allowed for a more thoughtful creation of categories that began to form as I neared the end of first-cycle efforts. The development of early categories is an important step in preliminary theorizing, along with the use of analytic memos for how they are interrelated and translate into overall concepts (Saldaña, 2016). Creating categories from my first-cycle coding was an important opportunity to make meaning of my two research questions, as well as to understand how the educators and designers each experienced the co-creation process. As I wrapped up first-cycle coding, I developed categories that were connected to the belief-based visioning process, the learning belief statements, concepts of change, the overall design process, and interactions between educators and designers. Although I felt these were a comprehensive collection of high-level topics, along with the details that came from the in vivo coding process, it was analytic memos that provided a deeper understanding of the theoretical connections within the data.

As I looked toward second-cycle coding, I reviewed my analytic memos and made note of significant concepts that arose from my writing. These allowed me to make sense of the singular concepts embedded in each memo, as well as the concepts that were threaded

throughout the research process. During this review, I noted some of the stories I wanted to eventually tell the reader and focused on my two research questions with this early reflective writing. Saldaña (2016) reinforces this approach, reiterating that it is not uncommon for researchers to notice early themes during the coding process and, by leveraging memo writing, the interrelation of categories eventually can be transcended into themes as second-cycle coding occurs. Using the mind map function of NVivo, I navigated through several iterations of how the themes identified in first-cycle coding and the reflections in analytic memos came together to form a theory of concepts for both research questions. My second-cycle coding structure was built from the concepts generated in each mind map. First-cycle codes were recategorized into these new themes, retaining the in vivo approach to allow for direct participant language to be incorporated into the findings presented in Chapter 4. This process of migrating initial coded commentary also provided an opportunity to see residual themes that fell outside the two identified research questions. These outlier concepts have been included in Chapter 5 as a discussion about future research opportunities.

With attributes of role, gender, and years of experience in current role applied to each case defined in NVivo, I utilized crosstab queries to explore further the concepts outlined in the mind maps and second-cycle codes. Codes created from the final learning belief statements were analyzed through this query approach to explore how frequently the various participant roles leveraged the belief-based language during co-creation meetings. Outside of NVivo, an analysis of purposeful communities was explored through a simple chart-based approach, providing a clear view of how designer roles and educator roles prioritized the four key elements as discussed in Chapter 2. With these additional layers added in to the second-cycle of coding, I

was able to evolve and firm up hunches explored in my early analytic memos, laying a clear path to the representation of data collected and analyzed through this study.

Using a multi-method, data collection approach from documents, interviews, focus group discussions, and observation, I focused on the same holistic issue: the co-creation of new learning environments and how it influences organizational change. Taking the iterative approach described in the introduction to this section, I better understood the thread of co-creation woven through the data supporting both research questions and the unique perspectives of varying roles within the new middle school case as I explored research Questions No. 1 and No. 2.

Reciprocity and Ethics

The executive director of operations, who facilitates Shady Bend's design and construction processes, was presented with a proposal of the desired research efforts to gain access. This proposal was developed around guidelines created by Shady Bend, and it included a summary of the project, relevant dates, the research purpose, research questions, and methodology. A data-collection table was provided, indicating the types of data-collection methods that would occur, along with the desired participant role and the approximate time required to participate. This proposal was presented to the district administration for review, and formal approval was given to proceed with the planning and research process.

No tangible rewards were given to individual participants within this study. Due to the digital nature of data collection because of COVID-19, no snacks or drinks were provided during meetings. Handwritten notes of gratitude were sent to individuals, thanking them for their participation in the research process. By connecting this research effort to a real-life project for Shady Bend, I am hopeful the learning belief statements will be a tool that will live on through

the occupancy of the new building. Upon hearing of Oakwood MS staff's experience, leadership from Shady Bend's existing middle school to the north expressed interest in creating the same opportunity for their staff. As a continuation of the concepts explored in this study and as a gesture of appreciation toward the school district, support was provided to this additional team of educators outside of this study to shepherd them through a similar process to explore their beliefs as a middle school staff.

Protecting the participants in my study was done with transparency in communication and a straightforward process to obtain consent from individuals. By seeking approval of my proposal through the executive director of operations, personal pressure was not placed on the district leaders to approve my study. I incorporated consent forms into the packet of individual reflection sheets for the visioning work session to provide a convenient way for each teacher to agree to participate. As a practitioner, I often find that building-level staff are excited to provide input and value being involved in the design process. Since it is unrealistic to have a new middle school designed by a committee of 35 or more staff members, identifying ways for staff to provide their voice in a scaled way appeared to be a welcome addition to the typical co-creation process. Consent forms included a clear research description, time commitment, and commitment to protecting the participant's privacy throughout the research process (Yin, 2018). I visited the school to pick up completed teacher consent forms and emailed those members of the research process who had outstanding forms, verifying their desire to participate and coordinating a method to obtain a completed copy. Formal approval was granted through the IRB process from Kansas State University.

There was a minor risk concerning ethical dilemmas associated with this study. As Oakwood MS certified staff were asked to engage in new experiences about visioning, there may

have been moments of discomfort in their small groups as they explored individual perspectives and came together as a staff to form a common understanding. To mitigate this risk, I coordinated with Sam, the Oakwood principal, on messaging and aided in setting the stage for this activity via email updates and a formal introduction during the visioning session to help ease staff concerns. Sam was relatively new to the school district and had less than three years in the current role leading staff at Oakwood. It was important to recognize that members might not had the time needed to develop a deep, trusting relationship with this new member of their team. These relatively new connections could lead to a natural hesitation to share thoughts in front of their building leader.

Data Representation

Data is represented using thematic descriptions, reflecting the research purpose and specific questions related to my study. Early in the representation process, a critical step is considering a likely or preferred audience(s) because case study research can include a diverse set of interest groups (Merriam, 1998; Stake, 1995; Yin, 2018). I have approached the presentation of my findings with the intent that both educators and designers will be potential audiences. As Hancock (2017) recommends, the report will be descriptively rich and include direct statements from participants to support themes. There is not a universally accepted format for sharing the findings from a case study (Hancock, 2017; Stake, 1995); therefore, I have blended multiple qualitative research authors' methods in case study methodology. Bhattacharya (2017) speaks to the importance of using narratives as a means to co-construct meaning with the reader saying, "Narrative formats are often rich, thick with contextual details, and help illuminate ideas about the topic the researcher is investigating" (p. 158). In my research, direct quotes from my in vivo coding approach were essential to weave into my narratives to ensure the

participants' voices were vividly represented. As a practitioner, the graphic representation of ideas is critical to clarity in the co-creation process. In support of narrative descriptions, I have incorporated diagrams to provide the reader with multiple formats to gain personal meaning. Multiple representation formats were an essential addition, as my intended audience incorporates designers trained in creating and understanding diagrams and educators who are trained in understanding that everyone learns and receives information differently. Recommending that researchers know their audience and recognize it can span multiple interest groups, Bhattacharya (2017) supports selecting visual forms of representations to connect with the audience and create additional clarity for the researcher. "By trying to identify appropriate forms of visual display of the data, your research becomes sharper and so too does your thinking about the research" (Bhattacharya, 2017, p. 161). Connecting with the reader in various ways is imperative, as is painting a vivid picture. Stake's (1995) method of utilizing an entry vignette was desirable. I began my report by allowing the reader to feel she or he has established a connection to the study site and participants, acting as an essential foundation for the reader's interpretation of the data presented. I have presented findings using thematic representations and a narrative summary of the interplay of applicable themes from both research questions. By weaving in experiential, reflective narratives throughout the report, I was transparent with my subjectivities keeping true to Tracy's (2010) "Big Tent" criteria for trustworthiness and rigor outlined below. By utilizing a closing vignette (Stake, 1995), I also ended on an experiential note, allowing me to demonstrate the interplay of education and design subjects and my overlapping role as a researcher and practitioner.

Trustworthiness and Rigor

In my pursuit of high-quality inquiry, I used Tracy's (2010) model of eight criteria to ensure exceptional qualitative research and to act as a framework guiding my study. These concepts are shared in Table 2 and connected to my study in more detail in the following description.

Table 2

"Big Tent" Criteria for Excellent Qualitative Research

Criteria for quality	Means, pracitices and methods to achieve
Worthy Topic	Topic is relevant, Timely, Significant and Interesting
Rich Rigor	Uses appropriate theoretical constructions, time and data in the field, sample(s), context(s) and data collection/analysis processes
Sincerity	Characterized by self-reflexivity and transparency
Credibility	Marked by thick description, triangulation, multivocality and member reflections
Resonance	Influences audiences through aesthetic, evocative representation, naturalistic generations and transferable findings
Significant Contribution	Contributes conceptually/theoretically, practically, morally, methodology and heuristically
Ethical	Considers procedural, situational, cultural, relational and existing ethics
Meaningful Coherence	The study achieves it's purpose, used methods and procedures to fit stated goals and meaningfully connects literature to research questions, finding and interpretations

Note. A summary of the eight "Big Tent" criteria presented by Tracy (2010).

Worthy Topic

The topic's worthiness can be seen in the vast number of physical construction projects undertaken by public school districts each year and the continual evolution of learning systems in the United States (School Planning and Management, 2019). By exploring the opportunity to impact the organizational change process in educational settings through the creation of learning environments, this research is a timely conversation piece for both educators and designers.

Rich Rigor

A thoughtful theoretical framework provides the lens through which to organize thoughts and consider assumptions and beliefs that will be in place during the research process (Bhattacharya, 2017). By approaching my research through the lens of a situative perspective (Greeno, 1998; Turner & Nolen, 2015), I have considered participants' personal histories and beliefs to explore how co-creation might adjust their existing views or form new views. This framework influenced the data collection process, utilizing interviews to understand the personal views that participants bring to creating new learning environments.

Sincerity

Sincerity was a critical consideration during my research process as I am directly connected to my study and participants through my work as a practitioner. Writing with self-reflexivity, I worked to ensure transparent communication with the reader on my connection with the district from both a professional and academic-based position. The continuous reflection on my interests and experience in the design of learning environments undoubtedly informed the interpretation of the information I collected and as I considered future benefits from the study (Creswell, 2018). As I embarked on the doctoral research journey, a goal was to create something meaningful in a practitioner role while adding to the academic discussion on the interplay of the topics of education and design. A sincere approach to this topic was imperative to connect with the reader and feel personal fulfillment through the process.

Credibility

Credibility in the research process creates a trust-based connection with the reader, focusing on detailed representation. "Credible reports are those that readers feel trustworthy enough to act on and make decisions in line with" (Tracy, 2010, p. 843). A critical component of

credibility is thick description. Showing data through description and allowing the reader to make meaning of the experience instead of merely telling the reader what to think is a difficult process that Tracy (2010) says requires more words than telling, resulting in a thick description. By leveraging multiple data collection methods, which produce results that can be triangulated during the analysis process, I have represented a holistic view of co-creation through the lens of multiple roles involved in creating new learning environments. This incorporation of views from multiple roles connects well with the advocation for multivocality. “Multivocal research includes multiple and varied voices in the qualitative report and analysis” (Tracy, 2010, p. 844). A multivocal approach is well connected to this study based on the participatory nature of the evaluative case study in which voices are heard in both the formation and facilitation of the process and represented in the findings.

Resonance

Resonance is described by Tracy (2010) as the ability to make a meaningful impact on an audience. To be able to call my research work a personally successful endeavor, making a meaningful impact was paramount for me. Because of the overlap of my topic from a professional and academic perspective, I intended to produce a collection of information that contributed to the future work of both designers and educators as they consider the creation of new learning environments.

Ethical

As addressed in an earlier section, careful consideration for ethical practices is embedded within this research effort. Through IRB approval from Kansas State University and open dialogue with district leadership, procedural ethics will be considered during all phases, ensuring the protection of participants and their ideas shared.

Meaningful Coherence

Meaningful coherence is seen in the presentation of thematic data following the collection and analysis process outlined in this chapter. “Studies that are meaningfully coherent eloquently interconnect their research design, data collection, and analysis with their theoretical framework and situational goals” (Tracy, 2010, p. 848). Co-creation is woven throughout this study, acting as a core principle of the design process and seen within the theoretical framework with which the research was approached. It reflects the epistemological view of constructionism with which this study is founded, and that joint creation of knowledge is one of the bedrocks of purposeful communities through an educational leadership approach to organizational change. By analyzing data through the lens of how designers and educators come together to create new learning environments and presenting views from a variety of situative perspectives, meaningful coherence was achieved.

Conclusion

Using a constructionist mindset, my research design was approached with a combined theoretical framework of co-creation and *Balanced Leadership* change theory. Combining these components was essential to bring elements of design and educational leadership together into one study. Co-creation is a participatory approach to the design process where everyone’s expertise is leveraged for the best possible outcome. In my practitioner experience, co-creation is the foundation on which the design of new learning environments is built upon, creating a trust-based relationship of exploration from the start. However, as I worked to understand how the co-creation of new learning environments impacts organizational change, applying a lens of educational leadership was paramount. The *Balanced Leadership* framework approaches change theory as focusing on strong school cultures implemented through purposeful communities. With

the acknowledgment that strong school cultures are built upon a commonly understood purpose and vision, this approach aligned well with my study's belief-based visioning component. The dynamic pairing of co-creation and *Balanced Leadership* as a theoretical framework blended my experience as a practitioner with my academic journey as a researcher.

Taking a participatory evaluative approach to my case study, I used my constructionist viewpoint to explore co-creation experienced by educators. As Oakwood certified teachers experienced the belief-based visioning activity, they became members of the process to shape their shared visions for learning and became active participants in evaluating the tool as they were asked to reflect on the experience overall and its usefulness during the design process. Finally, by involving the principal in developing the visioning work session and acting in a joint facilitation role, they were actively positioned in front of teaching staff as both a learner and a leader, a critical component of leaders who help build and sustain purposeful communities.

The views of the Oakwood certified teachers and the principal were not the only ones impacting the co-creation experience and the opportunity to influence organizational change. By taking a macro to micro approach to data collection through various roles within the case, I also included the unique perspectives of Shady Bend leadership, who set the tone for how the change process is understood, approached, and supported from a macro level. These shifting lenses of various views carried from data collection through analysis as I worked to understand the situative perspectives that individuals and role types bring to the co-creation experience. Presenting their voice through richly descriptive narratives preserved their unique views while identifying common themes to represent educators' experiences during the process of creating new learning environments. I worked to build upon my practitioner experience as I navigated my research journey and explored a personally meaningful topic for me as both an architect and a

scholar. Through a well-connected theoretical and methodological framework, the worlds of architecture and education came together for a better understanding of the unique perspectives of educators involved in the co-creation process, and contributing to the ongoing conversation about educational evolution.

Chapter 4 - Findings

This chapter contains the results of an evaluative participatory case study to answer two research questions centered around creating new learning environments. The findings are presented as descriptive narratives covering each of my two research question topics. Profiles of Shady Bend and the individuals who participated in the research process were included in Chapter 3. Understanding these unique perceptions that helped create the collective voice represented in the findings allows the reader to become more familiar with those who participated. With an understanding of the roles and backgrounds involved already gained from Chapter 3, I first share how educators and designers perceived a belief-based visioning tool as part of a process to co-create new learning environments. Next, I present the findings from data collected on research Question No. 2, how school district administrators perceive the creation of new learning environments as an opportunity to influence organizational change, and their perspectives on successful change overall. Findings for each of these questions is presented using narrative descriptions of the events that occurred and the participants' experiences, capturing their voices with direct commentary. For transparency of my subjectivities as a participant throughout the research process, I also included reflections as both a researcher and practitioner, separated by asterisks, with a number of these reflections being further explored in Chapter 5.

Belief-Based Visioning Experiences

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I had been prepping for the afternoon of January 6 for weeks, excited to launch the belief-based visioning process with the Oakwood certified teachers. The crux of research Question No. 1, this tool was intended to bring the collective voice of the Oakwood educators to the co-creation process, leaning on what they uniquely believed about the learning experience

and supporting the AMH team to ideate and create with a sense of excitement and empathy. Instead, my morning filled with anxious excitement was stopped in its tracks when the attack on the U.S. Capitol began to unfold over the lunch hour. As I worked through my to-dos for the day, I, like many Americans, was glued to the news while I watched what seemed to be a completely impossible series of events occur in real-time. With no idea of the outcome, nor the residual feelings this moment in history may be leaving with people, I reached out to Sam, the Oakwood MS principal, looking for guidance on how to handle the planned work session. He was stuck in meetings, unable to reply for more than an hour, and by the time we connected, we were within an hour of the session start time, and he was still catching up with the day's events. Not sure of how to proceed, we weighed our options. Due to teacher's contracts, this was one of the few chances to gather the entire certified staff together during January. Pushing a month was not an option to keep the co-creation schedule intact for the new middle school. It was now or never. I was torn. As a practitioner, I wanted the visioning work session to happen to start the process of co-creation with an exciting meld of voices across the entire staff. As a researcher, I was selfishly panicked. I worried that skipping this activity with the teachers would jeopardize a question set and research approach that had been carefully developed for months. But mostly, as an American, I was in shock and completely aware that the events unfolding was uniquely impacting each person. As the minutes crept closer to the meeting start time, we needed to decide.

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During the co-creation process, connecting with school district teachers and leaders for dialogue and decisions typically happens relatively quickly. For example, the average process to create a new middle school (see Figure 9) takes approximately six months to co-create the design

with the school district, three months for the design team to complete the architectural documents needed for construction, and another 14 to 18 months for the construction process to occur. Within the initial design process timeframe, only one of those six months, the programming phase, is spent identifying the types and sizes of spaces that will come together in a solution to meet the district's needs for learning. Recognizing that a new facility typically serves students and staff for several decades under an original design before any renovations or additions are initiated, this one-month window of time for designers to build a trusting relationship with educators and understand their unique views about learning is relatively short in comparison to the "life" of the building.

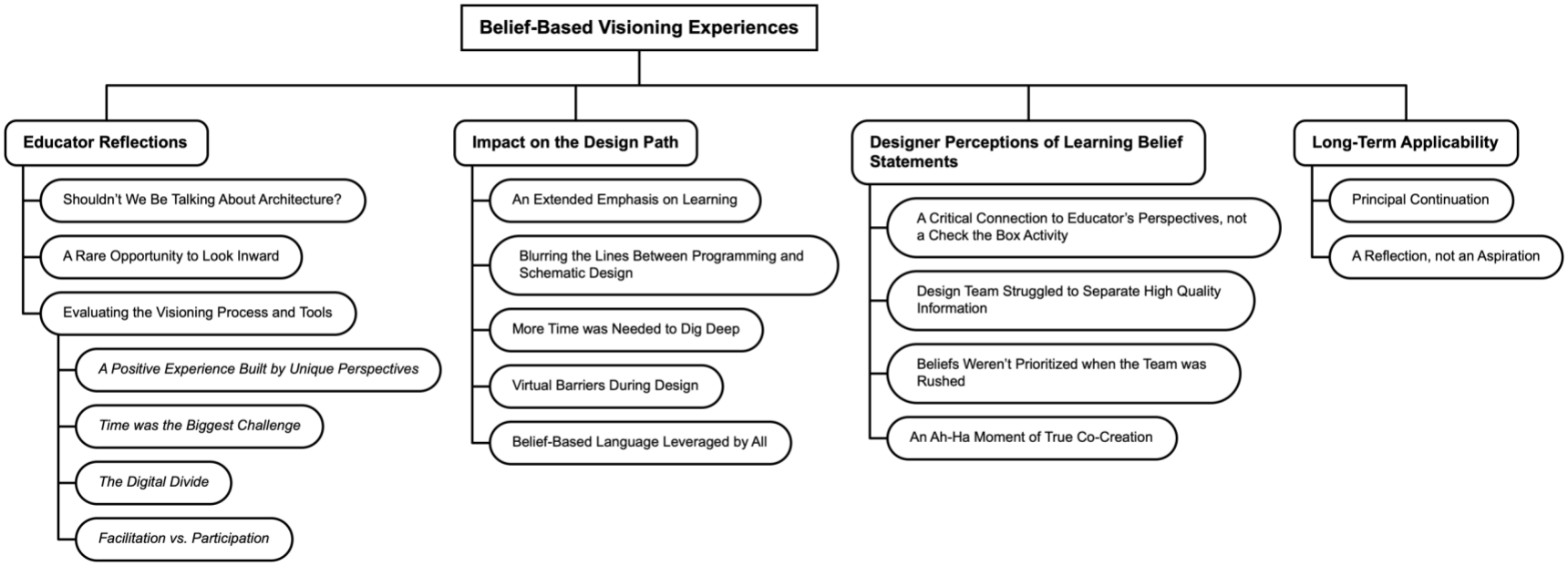
Not all architecture firms that design educational spaces approach the process the same way. Although there is no universally accepted right way, my belief as a practitioner is that our projects can become a more impactful learning tool if they are designed with a unique and empathetic approach to the type of learning experiences they will support. The belief-based visioning process was an experience and design tool born of this mindset, evolved from a long-existing project statement tool previously utilized by AMH. During interviews, AMH team members recalled the previous project statement tool as something with which the educators didn't fully connect. The former tool was a "check-the-box" experience for the team, not producing valuable results. The new tool's goal was to allow the educators to shape the vision from the ground up.

As I analyzed the data collected for research Question No. 1, which was focused on educators' and designers' perceptions related to the belief-based visioning process, I found four key themes with supporting topics that rose to the top. Understanding the educators' perceptions was critical because the tool was intended to be a gateway to their beliefs about learning and

their voice as a certified teaching staff. Considering the influence this new tool had on the design path was necessary because the study was focused on the co-creation process. With designers leveraging the final learning belief statements, their perceptions of the tool were vital. Finally, the long-term applicability of the resulting belief statements is presented. A coding structure illustrated in Figure 14 shows these four themes and their supporting topics. Prior to sharing the findings from associated codes, I begin with an explanation of the process to prepare the visioning approach and form learning belief statements from staff.

Figure 14

Research Question One Coding Structure



Note: A concept map of the coding structure used to present the findings for research Question No. 1 on the belief-based visioning experience.

Learning Belief Statements: The Process to Prepare and Form

As discussed in Chapter 3, the draft approach for the visioning work session had been developed as part of the early research plan; however, it was assumed adjustments would be made in partnership with Oakwood MS to genuinely make the process a participatory, evaluative study. Several meetings with Sam, the principal, took place to introduce him to the concept and facilitation approach. The overall work session was designed in the research planning process to incorporate individual reflection from participants, small group collaboration and a large group discussion to create cohesion through staff-wide learning belief statements. Details regarding the tools utilized and the experience of the work session are shared below. As discussed in Chapter 3, a significant shift was made in the facilitation approach of the study overall. Due to the COVID-19 pandemic, participants were brought together virtually instead of in person, as initially intended. In addition to shifting from an in-person approach to a virtual work session, the 90-minute exercise was condensed into 75 minutes to fit within the constraints of a regularly scheduled staff meeting to align with teacher contract time. With Sam's help during our first planning discussion, additional details about the participation approach were confirmed. Sam thought crafting small groups from interdisciplinary teams of five to six teachers would spur new conversations among peers and positively impact the co-creation process. This fine-tuning of the approach was precisely the intention of the participatory experience and set the tone of co-creation from the beginning as we worked together to craft a work session that would be enjoyable and impactful for this unique group of educators. Sam and I created an adjusted work session agenda together to fit the 75-minute window of time and brainstormed various tools described below that could support the small and large group experiences in the virtual setting.

Multiple tools in digital and analog format were developed to facilitate and summarize the belief-based visioning process. In preparation for this study, I developed an outline for the individual reflection portion of the work session, which was translated into a physical worksheet packet (see Appendix I) for use by the certified teaching staff. No refinements were made to these worksheets during the planning meetings with Sam. Because the work session was to take place virtually, Sam and I decided a Google Sheet would be the best tool to facilitate the small and large group discussions and for sharing sections of the work session. I created a draft version for Sam to review, and no refinements were made prior to use. A screenshot of the virtual tool can be found in Appendix K. The Google Sheet featured a tab for each small group to brainstorm and record the decided upon belief statements. The Google Sheet was designed to allow each small group entry to auto-populate onto the large group tab, revealing the full staff's statements all together. Although there were no heavy refinements made to the tools themselves, Sam took the participatory approach to another level when he chose to complete the individual reflection worksheets himself, prior to the work session, to test how much time was needed to thoughtfully complete the exercise. His effort provided an important real-time test of the individual reflection process in which the certified staff would soon participate. From this, we recognized additional time was necessary to make the process as meaningful as possible. With only a few days left before the work session with staff, we were ready to go. To prepare the design team, I reviewed the introduction presentation with them ahead of time and discussed how they would be assigned to small groups with the certified staff during the work session. The design team's role was passive in nature, and they were given instruction not to facilitate any of the experience or contribute to the dialogue significantly. They were instead asked to introduce themselves at the beginning of the small group portion of the session and explain they were there to answer

questions and help monitor the time remaining before the small groups would reconvene as a full certified teaching staff. After weeks of planning, we were ready to roll.

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As both a practitioner and researcher, I was frustrated by the need to condense this effort into a short period of time and was worried about the validity of the outcome. Had I failed in my approach to properly connect with the principal in enough time to find the best delivery method for the work session that wouldn't jeopardize the design and construction schedule, and the result was being "stuck" with only 75 minutes? It seemed that if we could have landed this experience in tandem with a full day of professional learning provided by the school district, we would have had the potential for a stronger start and more purposeful experience. Still, I knew that the variables were out of my control and hoped we could have an enjoyable and meaningful experience for each person involved.

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As noted in the opening narrative, the visioning session was in jeopardy based on the events at the U.S. Capitol on the afternoon of the scheduled staff meeting. With less than an hour before our start time, I asked Sam to make the final call as to how to proceed, wanting to put people first and recognizing that he knew his stuff well enough to make the decision on their behalf. He felt it was a significant participation opportunity for the Oakwood certified teachers and that with an introduction to the meeting acknowledging the difficulty of the ongoing events, we should proceed. His opening remarks were thoughtful and concise. The leadership Sam demonstrated was recognized by a member of the AMH team, when Olivia shared in an interview, "The fact that he got on [the virtual meeting] and showed such leadership in that

moment to just say, ‘Yep, this is happening. And if you need to get off, yes, please do. But we’re all here and we’re all together.’ That was such a community moment.”

After recognizing the unsettling situation at the Capitol, we were already behind schedule for our agreed upon agenda. After Sam introduced the AMH team and reminded everyone of the reason for the work session, I shared a brief presentation on the concept of belief-based visioning. Before sharing the premise of the visioning exercise, the presentation included an explanation of the connection to my research work and the need for consent forms. The outcome was explained as a tool for shared understanding and growth amongst the staff as they navigated their own unique teaching journeys as individuals and together as a full staff at Oakwood. It was also mentioned that the outcome of the exercise could be leveraged as the staff looked toward moving into the new facility, developing a newly combined teaching and learning culture with any new staff members. Finally, it was positioned from a big-picture perspective as an opportunity to create a deeper understanding of the experiences that space should support. Most importantly, it provided Sam a space to connect with his staff and share his version of why this process mattered to him and how it could influence their future work as educators. The decision to keep the work session focused heavily on learning as opposed to architecture was deliberate. From my practitioner experience, I knew that if I introduced the activity as one that would influence the design of the new middle school, then commentary provided would be heavily focused on architectural decisions and details as opposed to the type of learning experiences the facility should support.

Starting with a period of individual reflection, each certified staff member utilized the provided worksheet packet (see Appendix I) to reflect on his or her own beliefs about the learning process through the eyes of both the student and the facilitator. After reflection, they

formed their belief statements about learning, focusing on experiences and feelings as they completed the provided prompts. Each staff member turned off his or her camera during the 15-minute personal reflection section, turning them back on if they were complete before the time was up. Background music was played to create a welcoming and comfortable atmosphere despite being connected only through computer screens. Unfortunately, less than 25% of the cameras came back on before the time was up, and I noticed several teachers still working as we shifted to the next section.

Moving from individual reflection to small group work required the use of Google Meet breakout rooms for the interdisciplinary teacher teams to collaborate. As the small groups formed, each design team member introduced themselves and explained that their role would be passive, but they were available for questions at any time. The digital recording of the meeting continued during the small group sessions, but only captured the dialogue in Sam's small group, affording a view of the experience during those 20 minutes. Using a "popcorn" approach, where one person calls on the next, Sam encouraged each teacher to share their statements as they worked through each of the prompts on the individual reflection sheets. Sam worked to enter the concepts into the group's tab of the Google Sheet only to realize there was some technical difficulty when another group was accidentally using their assigned tab. Several minutes were lost trying to determine which virtual group was the culprit and alerting the leader to shift to their own tab. This mistake made an already short timeframe even more frenzied for the group. As 20 minutes of small group work ended, Sam rushed to fill in the collective answers on the Google Sheet to be visible to the entire staff as they shifted to the large group work.

As the small groups reconvened into the large virtual room, I shared the next steps. Sam would facilitate the process to explore the types of words and descriptions each small group

captured under the same belief statement category. The plan was to see what commonalities and differences rose to the surface and explore those differences in an open dialogue with everyone on the call. With only 25 minutes to complete this portion, Sam and I knew we would not have significant discussion time. Still, we hoped the individual voices were captured effectively in the first two steps of the process and, if needed, we could synthesize the commentary and bring it forward at another date for review and discussion. Luckily, the overlapping themes and voices were apparent in every category, and Sam, moving quickly, went through each topic, summarizing what he saw. I acted as a scribe, making notes of the language he used to pull the concepts together so it was visible on the same Google Sheet for the entire staff to see on their screens. There were a few comments and questions from various individuals who spoke up to clarify something their group shared or a particular word that was especially meaningful to them, but not a great deal of staff participation. As our session together ended, Sam and I both thanked the teachers for their involvement. I shared upcoming steps as to how the statements would be refined during forthcoming co-creation meetings with teacher representatives. With a promise to share the final results with the staff in upcoming weeks, we signed off.

The day after the visioning work session, I evaluated the draft statements entered into the full group Google Sheet (see Appendix K), taking time to confirm that Sam's quick review in the moment was an accurate summation of the small group commentary. Sam's analysis was excellent, and I was able to translate the common themes he identified into draft belief-based learning statements, which the educators who would be continuing as part of the co-creation experience could review. The co-creation team sent these draft statements to the educators ahead of the first design meeting for their reflection and review. Further details about the incorporation

of these draft statements into the co-creation meeting sequence is shared in a later section: Impact on the Design Path.

Educator Reflections on the Visioning Experience

Understanding the perceptions of educators who participated in the belief-based visioning work session was paramount to evaluate the tool through the lens of the participant perceptions. The certified teachers who continued through the full co-creation process provided their thoughts about the visioning experience through individual interviews. To allow for their thoughts about the tool and the process overall to evolve along with the co-creation process, I focused questions in both interviews on the topic to build understanding as their knowledge was formed together. Their overall reactions to the experience and their suggestions for improvement about the process are discussed below.

A Rare Opportunity to Look Inward

Through this research, I found that the opportunity to reflect and consider what learning should look and feel like and how students and staff should feel is often not presented to teachers and building leaders. As we worked together to develop the work session and associated digital and analog tools, Sam commented several times on this being a unique opportunity for him and his staff. He shared that for all the professional learning typically done in public school districts, reflection on the fundamental elements of the experiences they're working to create is never the focus. I was surprised to hear him share he had never been given the space in his career to focus on the process of visioning, or for the actual practice of reflecting and considering his work as an educator. Each of the educators interviewed who participated in the experience shared similar sentiments. Lisa, a classroom teacher, complimented the inclusion of the visioning exercise, saying, "I don't think I practice [reflecting on my beliefs] enough, so the opportunity to do that, I

thought was a positive experience." Echoing Lisa's view but expanding on the opportunity, Jane shared:

> It really kind of forced me to think about…what's important to me, what do we value in education. As a teacher, why am I here? Why do the students care about what I'm doing, and how can a facility or building kind of facilitate all of that?

Overall, the experience was a welcomed opportunity to look inward, and one that is not often presented to classroom teachers or building administrators.

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I found Jane's consideration of how a facility could support the type of learning she was envisioning to be interesting commentary. It created curiosity for me from a researcher's perspective, and it struck a chord with my practitioner mind as well. The instructions given to the staff purposefully included no detailed reference to architecture or facilities; the experience was simply a means to reflect on how learning looks and feels for both staff and students. The staff knew I was a representative of the design team, but both Sam and I explained that the outcome was simply a reflection on learning, nothing more. From my practitioner's view, this automatic connection is not uncommon and is further explored in Chapter 5.

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The lack of a previous opportunity to reflect and share doesn't mean the district or building devalues this kind of experience. It seems to be more related to teacher time already being taxed by specific classroom needs and limited amounts of professional development sessions. During the visioning work session, Sam was open with his staff, explaining, "We never have enough time, and we never have enough time together, I feel, as a whole staff." His

commentary was honest and open, and it demonstrated a willingness to provide more time and space to come together to share and learn.

Shouldn't We be Talking About Architecture?

An approach to learning, not architecture, was purposefully taken from the start for the formation of the learning belief statements. As a practitioner, I hoped that providing the space for these educators to reflect and focus on their unique areas of expertise would inspire their daily work and act as a helpful lens for the AMH team to leverage as they facilitated the co-creation process. I intentionally did not include any reference to facilities in the individual to large group process. I only briefly explained why we were asking staff to participate and how they might be leveraged for the continued development of the teaching and learning culture at Oakwood MS. I also shared that it would provide an empathic view of learning to inform decision-making during the future design steps. After the visioning session was complete, I found that every teacher who continued to participate as part of the co-creation team initially struggled to see a connection between the discussion about learning and the co-creation process. Lisa captured her surprise in an interview, sharing:

> I'm having a hard time seeing the correlation... I get we need to know our beliefs of what we want learning to look like and how we want staff and students to feel in the environment, but when I was asked to be on the design team, I was like, 'Yes, alright!' because I had the creative process in mind, like picking out furniture, coloring, designing, traffic flow, all the aesthetics, essentially. And so, I had no idea that it would be so much reflection on what we thought about learning. It's been an interesting experience for me.

Lisa was not alone in her thoughts. Noah's interview revealed:

> I had a hard time trying to relate why we were doing that to meet our process, or our goal. I thought, 'Well, this is neat, this is good stuff to talk about, but how is this connecting to the actual building?'

After seeing how the learning belief statements were used in the co-creation process, his suggestion was to be more upfront with the staff during the visioning exercise, sharing exactly how they would be used. As a practitioner, I initially feared that a robust connection between the statements and their ability to shape space would result in only commentary about space itself, not actual learning. Noah and I were able to openly discuss this thought process in his interview. He confirmed the potential outcome I feared, saying, "So, it's actually exactly what you were worried about, because that's what my perception is, 'They're here to talk about the building; this is what we need to do.' So, I would have been trying to make these things into what you need as opposed to just answering the questions and thinking about that externally." His fellow teacher Jane shared nearly identical commentary in her interview as she spoke to her assumption of talking about architecture, saying:

> I imagined that we would just start out talking about the building first. I was kind of surprised that we actually started talking about learning first. I was like, 'Well, that's smart, that's a very logical approach to designing a building.' I was ready just to get to, 'What do you want in a building?' but I think you do have to identify those things that we talked about in the small groups first before we get to those steps.

Consistent feedback on the feelings of those educators who participated in the co-creation team leaves me, as a researcher and practitioner, wondering how the teachers who did not continue their participation beyond the visioning work session perceived the experience overall. The opportunities to leverage their feedback in future research are discussed in Chapter 5, as I work

to find a comfortable balance between clarity in overlapping areas of expertise between education and architecture without producing results that only live on through physical space.

Evaluating the Visioning Process and Tools

Recognizing that the visioning process developed is both a personal experience and one shared by colleagues through continued development, I have relied on the users' perceptions and suggested improvements to evaluate the tool's effectiveness. The visioning work session was wholly focused on the educator, with the AMH team simply observers to the process. Although the designer's voice is critical in understanding the tool's effectiveness regarding the influence on the co-creation process, for this section, the effectiveness of the visioning session and associated tools is considered through the educator's eyes only.

The experience was positive overall for each person interviewed, and the educators appreciated the interdisciplinary approach to creating small groups during the work session. However, there is certainly room for improvement in future iterations of the visioning process. Educators shared that time was the most significant stressor during the experience. The virtual format created barriers to discussion, and additional support in the facilitation process would be welcomed. Each of these areas of commentary is discussed in further detail below.

A Positive Experience Built by Unique Perspectives

In each interview, I was open that this research was taking an evaluative approach to understand the visioning process and associated tools. I hoped the participants would openly share their feedback, knowing I would gauge its effectiveness and adjust for future efforts. During an open conversation about the visioning work session, positive commentary was shared about the overall experience. Sam was quick to share before even being asked, saying, "The experience has been incredible. There hasn't been a single thing that I would recommend you

guys do differently. I thought the visioning exercise was good. It was useful for the building, but also for us personally." His positive remarks were not surprising, considering he was an active participant in creating and facilitating the experience; however, teachers also echoed his sentiments. Lisa commented, "Any time you get to personally reflect on your beliefs, I think it is a positive thing." Expanding on Lisa's commentary, Jane shared her perspective saying, "I really enjoyed the process… A lot of times I think we as teachers' kind of get focused on one piece of [instruction], but we don't think about all the moving parts that really go into quality education for our students." Noah, who was honest in sharing his perception challenges with the experience at first, also found the approach enjoyable, sharing his appreciation for the small group time, saying, "It really worked well. And especially with the groups, when you hear other people saying similar things, and think, 'Oh yeah, I didn't think of that, and that makes sense.' But I do like the way that was set up." This small group sharing took an interdisciplinary approach, which was favored by all.

The ability to reflect in tandem with colleagues' voices that might otherwise go unheard added to the positive experience as each teacher shared from their unique viewpoint. Lisa shared that it was important and interesting to her to hear what her colleagues had to say as she explained:

> I thought it opened up a lot of perspectives that I wouldn't have thought of. I had a music teacher in there and a librarian and a Read 180 teacher. So, it gave me different... I think the whole conversation was eye-opening because I don't think we would have thought of those things had we not been able to discuss them, like if we were just discussing in our content area.

The tendency to get comfortable with close peers who might come to the experience with similar thoughts already in place was recognized by Laura. She explained in her interview, “When we’re together in our little bubble with the people that we’re always with, we tend to be focused on just us, and not the building as a whole.” Pushing beyond their grade levels or areas of expertise also revealed similarities that might not have been assumed. Noah explained the experience as eye-opening as he shared:

> It was interesting, especially in those early discussions when we talked about things that we felt we needed, and we felt the students needed, that even though I’m [an elective teacher], we had a counselor and we had an English teacher, a science teacher, that we all had similar thoughts on that, and the result is the same for everybody. We all want the same kind of stuff.

These teachers certainly recognized the value of involving the perspectives of their peers across the building as opposed to pushing their personal views through the design process. Jane wanted that feeling for all, saying:

> I think it’s great that you’re including the full staff in that because I think that allows them to feel like they are a part of the process. Even though they’re not part of the small group, I still feel like they feel like they’re able to give input.

With enthusiastic participation from the principal and supportive commentary from the teachers about the experience overall, one could argue there might have been a lack of openness with responses to protect my feelings as the creator of the visioning process and associated tools. Recognizing this was a possibility, I asked the educators to reflect on the process in both of their interviews and the focus group discussion. Over time, this built trust with the participants through the research and co-creation process, and allowed me to confirm their feelings as that

trust grew. Across all interviews and in the focus group discussion, the positive commentary remained strong. However, this was a newly developed process and associated tools. Additional commentary in interviews and the focus group discussion, as well as my observations as a researcher and practitioner, told the story that there was plenty of room for improvement.

Time was the Biggest Challenge

A proper co-creation process means that no approach to design is the same. With a similar mindset, each visioning process should be co-designed as well. For this experience, we were designing to a staff meeting with time constraints that was further impacted by a late start because of the unexpected U.S. Capitol attacks that day. As a researcher and practitioner, I was certainly concerned with the process feeling hurried as we crafted it to fit the staff meeting time, and my suspicion was confirmed in the suggestions for improvement each educator participant provided. Even with the adjusted timing for individual reflection, participants felt rushed. Jane shared with me, "The only suggestion I would have maybe would just be more time, maybe more time in advance to review the material, or to sit and process those questions and those statements to really give it some thought." Lisa confirmed these thoughts with me, saying, "I thought it was a positive experience even though I felt I didn't have a lot of time to reflect... 18 minutes? What?" She was undoubtedly good-natured about her response and laughed as she shared her frustration, but their rushed feeling during the reflection process was real.

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As I listened to each person share their perspective of the time limitations, I couldn't help but begin to problem solve in my head. A concept considered in development was to ask teachers to complete the reflection portion ahead of time after watching a short introductory video. This homework could then be brought to the work session, where small and large group discussions

would occur. I decided against this because teachers are already stretched to the limits in a typical environment, and I knew COVID-19 was creating an additional layer of stress. I was curious, however, how would the homework had been received? Would teachers have taken it seriously, or would it have fallen down the priority list? Does the fact that a designer introduced the visioning concept place doubt in their mind as to the relevance to learning, further impacting the potential prioritization?

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Feeling comfortable with the relationships developed with the educators to that point, I asked openly for their opinions about a shift in the approach. How would they have felt about being asked to complete the individual reflection worksheet packet ahead of time? Noah was straightforward with his answer, saying, "I would say that would create more time and a better experience." However, he contradicted himself when he also shared:

> Our teachers only have one planning time of 45 minutes, and the school I left to come here had two. So, it's pretty easy to put more on the plate and say, 'Hey, do this,' and in this building, it's hard to put more on when they really don't have a lot of time. They would be doing it on their own, or on that protected time, like early release professional development. I would have to weave that in, which means something's gotta give.

I was curious to hear the perceptions of additional teachers, and I found support for the extra ask of time. Jane shared in her interview, "I love the idea of homework ahead of time. I think that'd be great." We discussed the time that might be needed to ensure it stayed top-of-mind without feeling like a burden. Three days was a comfortable amount of time from Jane's perspective, as she explained, "I think three days is great. I don't think that would feel like a burden at all, and then you have time within that three-day window or whatever to do what you needed to do." Lisa

also was supportive of a shifted approach for future efforts saying, “That would have been beneficial, and maybe a truer reflection or a deeper reflection of what our thinking was.”

Individual reflection work was not the only experience that having more time could have improved. From commentary about the small group portion of the work session and the interactions in the specific breakout room, I observed both implied a rushed feeling. With five to six people in each small group, 25 minutes went by quickly. The session I followed utilized a “popcorn” approach for sharing, in which Sam called on the first person, who shared and then called on the next person. The bulk of the time was spent elaborating on their individually formed statements, which took far more time than Sam and I had accounted for in the planning meetings. As the facilitator, Sam worked on recording everyone’s comments quickly, saying things like “I’m doing my best here guys” as he tried to keep up. With everyone connected only by video, it was difficult to read body language, and there was very little dialogue. Instead, the session was more focused on reporting and recording. The breakout room I observed was not the only one with these challenges. Laura shared the experience from her small group, saying:

> When I was trying to lead that group that we didn’t have enough time to really do what we were tasked with, the brainstorming part. I heard other groups later say that they didn’t even do the brainstorming part, they jumped right into making the statements because they felt like they didn’t have the time.

A self-proclaimed perfectionist, Laura also struggled with the incompleteness of the statements because the small group time was up before the statements had been fully formed. She explained, “I wanted it to sound good when we were finished and it didn’t, and it was stressing me out, so that was just me, so I felt a little rushed for sure.”

As breakout rooms rejoined the large group session, Sam's group was still working to wrap up. A sense of stress could be felt as he finished details for his small group while simultaneously transitioning the entire staff to the large group discussion session. While 25 minutes were allocated for the large group session, less than 20 minutes remained in the meeting. Working quickly, Sam revealed the overall Google Sheet tab to the staff, which had successfully translated each group's answers into one cohesive view. His approach was to scan each learning belief category looking for commonalities and differences, then encourage the group to jump in with any concepts he missed along the way. As a scribe, I wrote down commentary to the side, capturing Sam's summary and making notes for clarification. Fortunately, there were quite a few overlapping concepts across the small groups, making it easy to find common themes, but Sam had to move quickly through them. Evan, the assistant principal, shared some clarification to a difficult-to-understand concept and additional commentary from his group. Other than his additions, only one additional staff member weighed in. As he shared, he opened with, "I know we're trying to wrap up but…" recognizing the rushed nature of the large group discussion portion of the work session.

In every way, time was undoubtedly the biggest challenge to the belief-based visioning experience. Despite the additional ask of their time, the educators said they would welcome the chance to work individually before the work session, allowing for deeper reflection and more space for dialogue with their colleagues. The process was adapted for the time provided, supporting the concept of a unique co-design approach for each new scenario, but all still felt the effects of the rushed nature.

The Digital Divide

When I drafted the original visioning process, I envisioned an in-person work session from the start. It would allow each participant to find their own comfortable space for their individual reflection work, then bring them together in small groups to share and connect. Using post-its and large flip charts, the intended goal was to transfer the personal statements to the wall, clustered under each category. Pairs would work to synthesize, then reconvene to share and listen. The collective work of the small group would then be shared back with the large group on flip charts, allowing their voices to shine and to build a story in front of the entire staff. As the dialogue proceeded, each participant could physically see and reflect on the unique statements each group formed, asking questions and sharing details as needed. Something as simple as how they were written or the color markers chosen would create a human connection. However, like so many business and school interactions during the pandemic, the group approach shifted format. Instead of being together in a room, the group was a collection of tiny individual video screens impacted by a digital divide. I witnessed some of those challenges as I observed the small group breakout session Sam led. Although the presenter's screen was shared with each participant, it was difficult to see the text clearly while also seeing the context around that topic. Sam worked hard to make the text a size that all could see, but precious time was spent adjusting the screen's settings and working through some technical difficulties with the Google Sheet tool. Although I was only able to observe one small group breakout room, the teachers in other virtual rooms were experiencing their own layers of frustration as they worked digitally with colleagues who were literally sitting in their own classrooms down the hall. In describing the challenges of that divide, Lisa shared, "I feel it would have been more beneficial in-person and had a different type of activity, like sometimes you use the stickers and dots [to share]." She also recognized that the situation was out of the hands of both facilitators and participants as we all followed the

district's safety protocols. Lisa went on to say, "So the circumstances lent itself to what we had to do, but I think having that visual would have been better because on the computer, I don't really know how much we got out of it." Lisa was not alone in her feelings of frustration the virtual situation caused. Chapter 5 further discusses the consideration for in-person vs. virtual connectivity for this type of work session. Laura, who also led a small group, shared another level of frustration with trying to keep her peers engaged, saying, "[A fellow teacher] was probably working on something else at the time. We were virtual, so I don't know what else he was doing." Not only a perfectionist, Laura also describes herself as a rule follower. She struggled with her responsibility as a facilitator to get everyone involved to ensure their voices were represented while also creating a finished product she felt was complete enough to share with the large group. The balance of facilitation and participation was a struggle outside of simply the digital divide that others felt as well.

Facilitation vs. Participation

It was a deliberate choice to have the group of educators who would contribute to the co-creation team facilitate the small groups. The hope was that as the process went on through design, they would be careful listeners in the moment and flagbearers of the learning beliefs for their peers. During the initial design of the activity, I was concerned that having members of the AMH team facilitate the experience might reinforce any preconceived ideas that this was simply an exercise of defining architecture. Instead, I hoped by having educators facilitate the groups, it would be an essential step to forming a purposeful community, further discussed in Chapter 5. What I found was that the act of facilitating and participating was stressful and imbalanced for the group leaders.

This dual role of facilitation and participation created a dynamic of power and responsibility that Jane was concerned about before the work session. She shared in her interview, "I thought, 'Oh my gosh, I'm going to have to facilitate my own small group of people. I'm scared the teachers are going to be mad at me or whatever.' When you're working with your peers in a facilitator role instead of more like an equal partner role, it kind of gets intimidating." For the rest of the teachers and the building principal, it was a significant stressor that impacted their ability to contribute. Sam shared that having the design team member act as a scribe would have improved the experience, saying, "I think it would have been so much better… It was super stressful for me to have to be navigating and typing instead of listening and contributing. Yes, a [design team member] 100% should do that." Each teacher interviewed echoed Sam's frustration. For example, Noah explained how it was challenging to multitask in the moment, sharing:

> A problem that I had was trying to take notes and write down what everybody was saying as they were saying it, because I wanted to try to get everything, but then it was hard to interact and be like, 'Oh yeah, I thought that, too.' And then type it at the same time."

He wasn't alone. Lisa commented, "Being the recorder and trying to stay engaged and record all of their responses and things like that, I'm not good at that, so I was challenged by that whole situation." After listening to the unique experiences of each small group leader, it was clear that having an AMH team member there to take notes in the virtual setting would have allowed the leader to more comfortably balance facilitating the conversation and sharing as an active participant.

In summary, the educators enjoyed the belief-based visioning experience overall, especially the opportunity in small groups to hear the voices of their peers, with whom they don't

often get to connect. The process and associated tools brought positive impact, but variables of time and connectivity were a hinderance. Providing the individual reflection packets ahead of time as homework would allow more time for small and large group dialogue and connection. The educators confirmed that in a non-COVID situation, bringing everyone together in person would have better supported collaboration and important dialogue. This in-person approach would have removed the need for the group leader also to be the scribe. However, if a virtual format is necessary, providing a neutral recorder would remove pressure from the group leader to simultaneously act as a facilitator, participant, and scribe.

Impact on the Design Path

As discussed in Chapter 3, the typical co-creation process to design and construct a new middle school includes five phases during a 23-month period (see Figure 9). Although the co-creation process in general allows for schedule, project type and building user needs to influence the adaptation of the design path, the five steps of the process are typically included and executed similarly. The belief-based visioning experience brought a shift in the clear definition of phases the AMH team generally experiences, as they saw an extended emphasis on learning and a blurring of the lines between the programming and schematic design phases.

An Extended Emphasis on Learning

Recognizing that learning belief statements the certified teachers created were another layer to incorporate into the design process, the team worked to craft a co-creation experience that would leverage this crucial additional information in early design phases. Early co-creation meetings are often spent building trust between designers and educators, and AMH has a series of existing design tools that help build relationships amongst co-creation team members and set the tone for a successful project experience. These familiar tools were focused on building an

awareness that each person processes information differently and fostered dialogue about the unique characteristics of students at that particular learning level and elements of community identity that might influence design decisions. Armed with the learning belief statements the Oakwood certified teachers formed, which provided a window into middle school learning, the AMH team decided to shift away from tools that typically would be utilized and try a new approach. In the hope of supporting dialogue quickly when the group of educators and designers convened, statements from the large group portion of the work session were summarized and sent to the educators on the co-creation team ahead of the first project meeting for their review. During the first co-creation meeting, introductions were made and the AMH team explained the design process the group would experience during the next six months. They also recapped some of the essential elements gleaned from the district visioning meetings that occurred in late 2020. This armed the full group with everything that had happened to date on the project, ensuring everyone had consistent information from which to build. The duration of the meeting was spent exploring the draft learning belief statements the certified teaching staff had formed.

Facilitating most of the first co-creation meeting in my role as educational design director, I asked the educators to help the AMH designers understand what they currently do, or hope to do, in their classrooms every day to create the learning experiences each statement described. For example, one of their learning belief statements was *Learning should be meaningful and relevant because strong connections to learning creates student buy-in that helps prepare them for an unknown future*. As they explored this statement, they spoke to the types of experiences they are creating to make learning meaningful and relevant for middle school students. The educators openly shared their unique content areas and were encouraged to help the team understand what the student actions and interactions could look like and the activities in

and out of their classrooms they hoped to create for learners. After the meeting, the resulting commentary was used to help make a short description of supportive learning environments that would complement each of their belief statements. This first co-creation meeting was entirely focused on learning, which directly connects to the surprise some of the educators mentioned in a previous section regarding the amount of learning-centered dialogue that took place rather than specific discussion about architecture.

For the second co-creation meeting, the AMH team brought back the finalized outcome of the belief-based visioning activity (see Appendix J), which included the learning belief statements, language on supportive environments and commentary about the feelings of staff, students and the community. Pushing further to understand the *why* from the educator's perspective, a significant design process shift came from not talking about space next, but instead about the student inquiry process and how learning happens in and out of the classroom. The AMH team hoped it would be a more accurate reflection of what space could and should support, not simply a list of what spaces Oakwood's building currently contained with increases in size or quantity. Although unconventional from an architectural design process standpoint, these discussions gave the AMH team a real-life version of teaching and learning to begin to design toward. Olivia, one of the AMH designers working on the Oakwood MS project, alluded to the opportunity to build both empathy and trust, explaining, "We've been able to dive into their way of thinking and then their mindset more, and get to know them more, and I think build that trust more." Design resource team members who guided the process within the AMH office echoed her thoughts. Rachel, an office-wide resource, focused on education shared in her interview, saying "This is a conversation starter that then allows me to have a dialogue that then I can tease and sort of step in and out of." Rachel's focus on design through the lens of education at AMH

means she is likely more comfortable than the average project designer in having those learning-focused conversations, but her support to the team in crafting questions and fostering dialogue is critical to project success that will ripple across the office.

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As I interviewed the AMH designers and thought back about how the process had shifted, I was reminded of how often I hear from clients that there is a surprising amount of talking that happens before any drawings are shared as examples or produced for that project. For this study, the same tone and language of the educators who experienced this project was heard, as they shared surprise about the focus on learning, not on space. As I worked to understand how this new visioning tool impacted the design process, I realized I was pushing that line even further. Although my focus on education within the design firm allows me to pursue an interest and build a foundation of knowledge around learning, I wondered if I was creating a gap that a typical designer would struggle to fill in a future project. This concern is discussed further in Chapter 5.

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Considering the educators' views of this dialogue-based approach was essential for me as both a researcher and practitioner. Jane shared similar commentary to the design perspective above, saying:

> I do think it was extremely important to have those conversations, and to make sure we were all on the same page about what we wanted the space to be used for, and how we envisioned the space. And I also think it helped to build the relationships between the staff and your design team.

It took Jane some time to see the *why* behind the conversation, although, as she went on to explain:

> I just thought [the designers] were going to be like, 'Okay, what do you guys want to see in your physical space?' So, I wasn't really sure at the beginning when we were doing a lot of the dialoguing where it was going, but now being at the step we're at now, I totally see the process and why the process... Why we went through the process that we did.

From my experience as a practitioner, a common concern in the design field is the chance that a client will see an example of an early concept and become overly attached to it. Designers balance a fine line of showing progress and precedent examples while helping each client realize their unique vision. This is a big reason heavy dialogue exists in our version of the co-creation process. No building is pulled "off the shelf" and reproduced for another client, making each one a unique solution. Laura shared her initial reaction to the dialogue process by saying:

> I think at the time it felt like, 'Well, we don't really know what we need until we see what you've got,' but now looking back on it, I can see where if we had something in front of us, we would have just said, 'Oh yes, that works,' or 'No, that doesn't work,' instead of thinking about why do we want more collaborative spaces. Why do we want... Figuring out what we want and why we want it, instead of looking at something and going, 'Oh, that's really cool.'

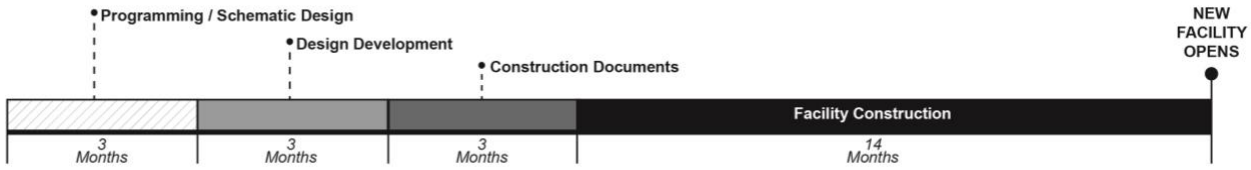
Although it is not uncommon for educators to vocalize their surprise about the amount of dialoguing that occurs before drawings are formed, the incorporation of the belief-based visioning tool from the start brought more significant emphasis on conversations about learning from the start.

Blurring the Lines Between Programming and Schematic Design

The AMH team welcomed challenging the typical approach and meeting sequence. For example, one of the project leaders shared, “I like doing things differently and thinking that I am part of challenging, not challenging the status quo, but I like the freedom to step outside constraints and the freedom that comes with that.” Although the designers were excited to try something new, it indeed came with a challenge. The learning-centered information from the educators came with intensity in early conversations and separate spaces were not neatly discussed, as they might be in the typical formation of a building program. As a contrast to the typical design process shown in Chapter 3 (see Figure 9), the evolved design process (see Figure 15) demonstrates the blurred lines between programming and schematic design.

Figure 15

Evolved Design Process with Combined Programming and Schematic Design



Note: Diagram of an evolved design process combining programming and schematic design and associated phase timing for a new middle school.

From the perspective of her support role for the team, Rachel shared, saying, “I actually feel like we’ve got more information before [we normally would], and the team doesn’t know what to do with it.” Her view was shared by Molly, who spoke during the focus group discussion, saying:

> We’re not getting the information in the same way, and so it’s probably hard to translate it back in. And maybe you get into design development and maybe it starts to look closer,

> but it's like, 'Is schematic design going to ever look like schematic design from another project at this point or is our version of schematic design always going to feel a little different, COVID or not?'

For designers who facilitate the co-creation process, successfully meeting deadlines is critical to bringing a project to fruition; one missed deadline can lead to another as the timeline gets crunched. Although the AMH team was excited to try something new, reaching the end of the programming phase without a clearly defined building program was troubling for the group. Olivia spoke on behalf of the design team during the focus group discussion, saying:

> A lot of our team conversations in the last couple of days have been centered around our struggle from... struggle is a strong word... our transition from programming to schematic design. And I think we want to have a really nice line in the sand. It's like, we have all the answers, and now we're making a building, and we're going to apply our answers. And what we're doing is we're "cupcake swirling."

Olivia's reference to cupcake swirling is the iterative and sometimes swirling nature of the design process referenced in Chapter 3 (see Figure 13), and the team realized they were circling back a bit to find the next steps forward.

More Time was Needed to Dig Deep

The time crunch not only was felt in the visioning work session itself, but the AMH designers also felt it as they facilitated the co-creation team meetings. The first two meetings needed to fit within a 60-minute timeframe, approximately half of typical programming meetings. Moving into schematic design, the meetings were extended to 90 minutes, but the AMH team still felt rushed. As the designers navigated shorter meeting times and integrated the

new learning belief statements into the process, it caused the team to rethink how they leveraged their time with the educators. Brad reflected on this mindset shift in meeting usage, saying:

> I think the way that we've countered [the time constraints] is seen in some of the creative ways we've also gone about getting extra feedback with some of the homework and questioning, and then offline conversations. At times it's a lot because there's a lot of information floating out there and you're kind of pulling from different areas, but I've kind of enjoyed that extra piece of another way of information gathering that we've kind of used, because the meetings haven't been as long or discussion-heavy.

The AMH team worked to balance short meeting times with the desire to fully understand the *why* the educators shared when they described how learning should be supported in the new facility. From her role of resource support on the team, Molly acknowledged both the desire to learn more and the need to shift mindsets, saying, "It's figuring out, okay, how are we maybe digging a little further in a meeting to get them to talk about some of these pieces and not just taking it for the physical words?" Leah agreed with Molly's idealistic view, but also shared frustration with the time constraints, as she told her team, "I get a little frustrated in those meetings when I'm like, okay, it felt like once we finally got people talking, we have to move on." Leah was disappointed that meetings weren't bringing the positive voices of educators together as she continued, saying:

> I feel like we're missing those people's ideas, at least kind of going semi in the same direction, and we just haven't gotten into those deep conversations with them yet to start to push them both and to right them enough that they're coming in a similar direction, I guess.

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As I listened from my position as a researcher, it felt like my team was eager to make the best use they could of the real-life experiences and views of learning that the educators had formed. They felt a responsibility to implement these ideas successfully; however, to understand how to weave them into a spatial solution, they needed to shift their mindsets of how the information should be sorted and organized. It seemed they wanted an orderly division of input focused on spaces, and they struggled to extract those elements from the educators' contextual stories. Because it wasn't simply checking boxes on spaces, they felt stressed to have the process work somewhat inefficiently. This was no different to how I felt as a researcher at times. Data didn't always come in an orderly fashion, and I needed to make sense of it through coding with tools like NVivio. Although it would be a big ask to have the typical project designer code their "data" in a similar fashion, it is a compelling thought to consider the designer as a researcher.

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As the AMH team navigated the blurred line of programming timing, they became more comfortable with the fact that it had melded into schematic design, but time was still a driver as they were eager to "right the ship" of the co-creation process. Leah shared in the focus group:

> I think a big one, we just talked about it as a team right before this meeting, is we've got big programming holes. So again, it's that we're technically supposed to be done with programming, but we still have these huge what-ifs in our program, and I feel like that's one of those things that we're like, we just need to get to the point where we sit down with the people that make the big decisions and have that moment of like, 'Let's do this, let's do it.'

Their desire to get back to a previous approach to project milestones was strong. Oliva echoed this thought, saying, "In my mind, it's hitting schematic design. All of the tracks need to come

into the schematic design station, then we document." Although they approached the design process and integration of the new tool with an open mind, they were eager to get back to a previously known comfort zone of what the design process should look and feel like.

Virtual Barriers During Design

During the belief-based visioning process as described in the educators' reflections on the tool, a frustration was felt because of the virtual barrier COVID-19 restraints caused. As they worked to build a purposeful community together through design, educators and designers alike felt the negative influence of the virtual nature of co-creation team meetings. Both AMH project leaders were direct with their commentary. Brad shared his frustration sharing, "I think being virtual the whole time has been trying, and it would have been better to be in person." Oliva agreed and also shared the influence on the design team itself, saying, "I think the remoteness of us to the client, also ourselves has been a huge, potentially negative factor." With the face-to-face factor removed, Leah struggled with the relationships being developed, saying, "Because it was all done over video calls, it was just hard to connect." The client shared similar feelings. Noah recognized the situation was out of our control, saying:

> It is what it is, but being in-person, I think would lend itself to those discussions a little easier, and you guys are doing great with what we've got as far as doing it all virtually. But any time that you have somebody in the room, it's easier to have that conversation as opposed to doing it virtually.

Not only did Noah recognize the struggle to connect through conversation, but he also commented on the difficulty in sharing feedback in that setting, explaining, "There are times where it's like, 'Well, I wonder if I should say something,' but then it's hard when it's the virtual meeting." Even with the chat feature of Google Meet as a connecting tool and the AMH

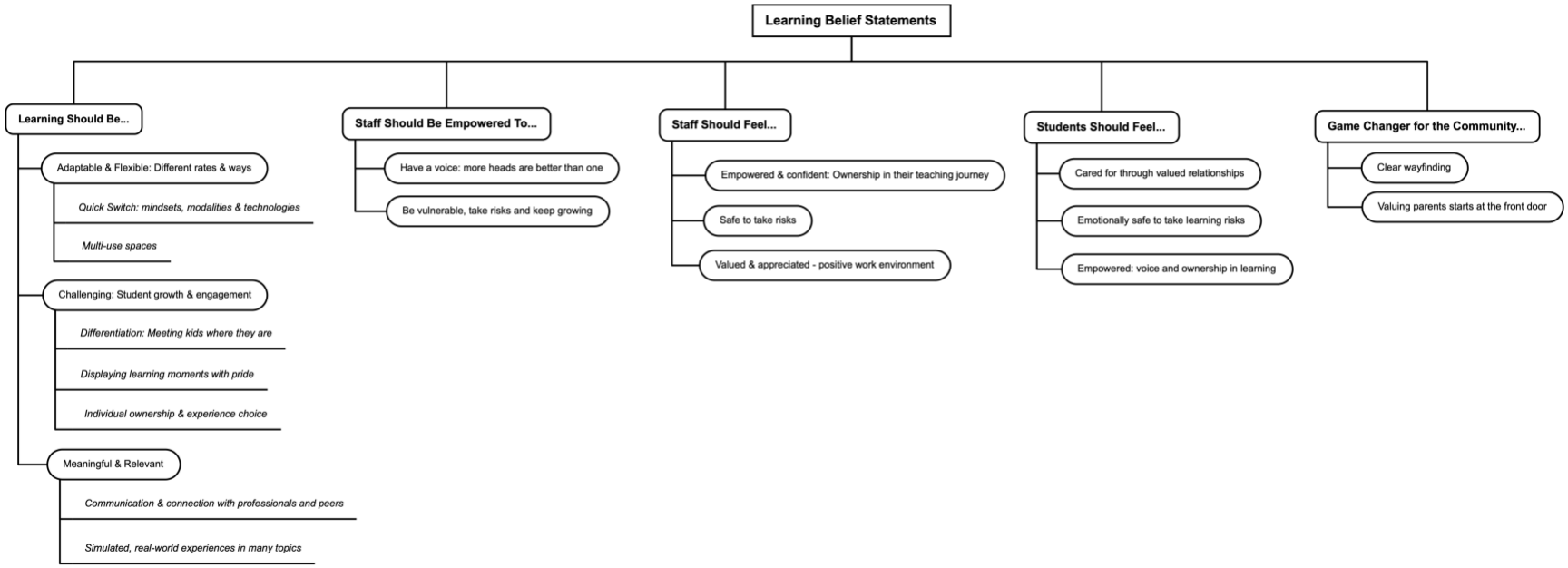
designers asking for feedback at points during the presentations, it was clear there was still a digital divide felt by all.

Belief-Based Language Leveraged by All

The goal of the belief-based visioning work session was to provide an opportunity for all Oakwood MS certified teachers to have a voice in the process. Supporting the theoretical framework of this study, it also was an opportunity to support a purposeful community as these educators looked toward the change process of moving into a new facility positioned under a common purpose and outcome supported by all. Purposeful communities that are built between the designers and educators were explored as the two roles leveraged a common purpose and understanding to impact the design of the new middle school. The final learning belief document (see Appendix J) was coded using language from the twelve statements, then categorized under the overarching belief statement themes as shown in Figure 16.

Figure 16

Learning Belief Statement Code Structure



Note: A concept map of the coding structure created from the belief-based statements on learning.

Using NVivo to run a crosstab query, this belief statement commentary was captured from each participant's role for the five statement categories as shown in Table 3 below.

Table 3

Learning Belief Statements - Commentary by Role

	Supportive Commentary Coded by Role				
Belief Statement	Teacher (n=7)	Building Administrator (n=2)	District Administrator (n=6)	Designer (n=7)	Total (n=22)
Learning Should Be	26	12	29	31	98
Staff Empowered To	1	5	2	0	8
Staff Should Feel	13	8	12	7	106
Students should Feel	9	11	10	8	38
Game Changer for Community	2	5	4	6	17
Total	*51*	*41*	*57*	*52*	*267*

Note: A table showing how each participant's role positively leveraged the learning-belief statements during core Oakwood MS design team meetings.

Results show that educators leveraged language to support the learning belief statements with a reasonably equal distribution across the various roles, as compared to the total number of references. However, considering there were more than triple the number of teachers than building administrators, the average reference per person across those two roles shows significant disparity. Teachers made an average of seven references per person, with building administrators making slightly more than 20 references per person. A potential reason for this outcome could be connected to the personal buy-in from the building principal through his participatory role in shaping the process; however, it also potentially could be connected to the leader's desire to rally a group of educators under a united purpose. Regardless of the unique reason for this particular set of administrators to leverage the commentary more often than the individual teachers, the somewhat equal distribution of the commentary across the roles demonstrates that both the designers and educators worked to include the voice of the certified teachers through the co-creation experience.

If the types of experiences, activities and shared feelings upheld the spirit of the learning belief statements, the language and descriptions used were not always direct verbiage from the statements themselves, but rather considered supportive commentary. This approach to coding recognized that the unique perspectives of each participant might bring a different word choice or description than their peers but still upheld the intention of the experiences the statements represented.

Designer Perceptions of Learning Belief Statements

The educators who participated in the co-creation process of the new middle school found value in the belief-based visioning process, but they also provided plenty of suggestions for improvement. As the learning belief statements were incorporated into the co-creation process, the typical design path was certainly impacted, as described above. As this shifted design process impacted each of the designers in a unique way, their reflections captured both the struggle of introducing a new design tool and the awareness it provided of the co-creation experience overall. Their perceptions are shared below.

A Critical Connection to Educator's Perspectives, not a "Check-the-Box" Activity

At AMH, a series of design tools have been developed throughout the years to facilitate the co-creation process. Typically, the project design team chooses the design tools with the support of office-wide resource staff to ensure a good fit for the unique client and project at hand. An existing design tool developed more than a decade ago has been in place to connect learning to architecture through written statements to represent the unique project. In recent years, teams found that the existing tool was requiring a great deal of precious meeting time to shape the statements in real-time with the client, so an adapted form required the design team to research the client and bring forward some foundational information as a means to edit and

reform during an early co-creation meeting. When asked to reflect on the effectiveness of the new belief-based visioning process and associated learning belief outcome, several designers compared this co-creation tool to the decade-old tool they had been using to date.

Across all design roles, there was consistent commentary that the belief-based visioning process was less of "check-the-box" activity to which they were accustomed, and was instead driven by curiosity and dialogue, allowing them to hear the words of the educators and their unique *why*. From her resource position, Rachel shared the benefit of the new approach:

> What the tool has done is really not the tool, it's about what has it caused us to do. It's caused us to have a conversation and be able to pull people into a conversation easier than the other tools have.

She also spoke to the applicability of final statements captured in a graphic format (see Appendix J), instead of only the process to form them, sharing, "The results that we're seeing are being applied actually, rather than just the data sitting on the shelf." From her position of working daily on the project as she connected with the client and shaped the design, Leah had similar thoughts, explaining:

> I think the fact that we approached it differently and it was with different people in the room… It wasn't high-level district people; it was educators and staff. I think that has helped us set, it's just given it a different course in that I feel like it's more useful, where [other tools] felt kind of awkward working through that with them. And at the end of the day, we got a lot of information out of them.

As a project lead, Olivia shared similar commentary in her interview, explaining:

> I think the support that the tool has given us with those learning belief statements, it's like, 'No guys, everybody remember this is what we're doing,' and it was allowed to be

> this expectation of something bigger than just my daily, 'Oh, I go to this room and that's what my room's gonna look like.'

Molly felt the tool's success was because it was the educator's words from the start that made it easier to leverage throughout the process, as opposed to generic wording from a website or information. From her position as a support to the design team, she explained:

> When they're the ones that are saying it to begin with, when it's more of their words on the front end, then I think it's easier if we're pulling them back in and reminding them, it's easier for them to be like, 'Oh yeah, I said that,' versus 'Oh yeah, I guess that's the thing we said, but I don't know, I wasn't really sure.'

However, in her opinion, it is not just the influence on this project that has proven the tool to be a positive influence on AMH, but it is also the opportunity beyond this singular experience that is significant. She explained how the shift to dialogue and curiosity with this project has impacted how she supports other teams through her resource role. "Even since Shady Bend, we've started to talk way more about experience and the learning experiences that we're creating. And I feel the teams are definitely getting better information in general, more impactful information for what they're looking for." The effectiveness of this tool for designers can be seen in this team's ability to connect with educators and the resource role's influence in supporting this dialogue-based approach to ripple out across the design firm.

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No different than my concern about the educators potentially feeling pressured to give positive commentary on the visioning experience, I cannot help but consider how these design team members might have been feeling this pressure as well. Not only had I been passionately working alongside the design team from my position as a researcher to insert the visioning

experience into the Oakwood co-creation process, but, as a partner at AMH, I also am their direct boss. There is a potential that these individuals were protecting my feelings, knowing I had invested a huge amount of time and energy into my dissertation work, and believed they should only give positive thoughts. I am hopeful that my strong working relationship with each one of them and my openness during the development process with them that I knew it would need improvement, allowed them to share honestly, but it isn't possible to know for certain.

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Design Team Struggled to Separate High-Quality Information

As described in a previous section, the belief-based visioning experience impacted the typical co-creation sequence as the design and resource team members from AMH grappled with the blurred programming and schematic design phases. With the programming phase not being focused explicitly on individual spaces and the learning those spaces would contain, the dialogue driven by the learning belief statements produced a great amount of information. The designers were not ready for this shift, and they struggled to sort out the high-quality information they would need in later design phases. The resource roles spoke to this challenge directly as they watched the team not realize the information they were receiving was beyond the simple programming components to which they were accustomed to. Rachel explained in her interview:

> We have a lot of information, more than I thought we would, as I look back through all of the surveys and the comments that they've given us. And so, I think what's interesting is the team is struggling... Most teams struggle with how to connect the way that the owners give us the information to what we need to apply it to. And I'm seeing that both in the way that we did it, and also in the old way too actually. They're giving it to us, and

> people are like, ‘No, just tell me the answer.’ And it’s like, ‘Well, they told you the answer.’

Molly realized that as a project resource, it was within her responsibility to help the team make sense of the information they had when they became frustrated at points in the co-creation process, explaining:

> I think the team struggled to tie [the information] back at times and remember what they had. I think that was the key thing, when we think about what we’re doing, how are we reminding and bringing it to the forefront and building upon it?

As an AMH design team member, Leah didn’t directly comment on the struggle to sort through the information, but when her interview concluded, she shared what was on her to-do list for the upcoming week. She referenced an additional tool used to solicit input on elective programs via email, sharing:

> We sent them those emails with all those questions, and we did that really early on, and I think what I’m going to do tomorrow is really go through those questions, look at our plans and try to figure out how I can make what they’ve already told us about fit within the plans, and then I’m going to make... ask, what other questions do I still have from them that I need to know?

As Leah casually processed out loud how she might work through the information to bring impact to the design of the new middle school, her observation that she had a large amount of input to sort through supports the similar resource views shared by Rachel and Molly. Chapter 5 discusses the consideration for how this tool not only impacted this design team with first-order change, but also with components of second-order change.

Beliefs Weren't Prioritized When the Team was Rushed

With only a finite number of months available to facilitate the co-creation process and produce an architectural design that can be effectively constructed to support a school community, it is not uncommon for AMH teams to experience periods of rushed work. Nearly all the designers involved in this project also were balancing other project responsibilities across the firm. This is typical since these team members often start the design of a new project while also supporting the last few months of the construction administration process on a previous project. Their time is mainly focused on the new project under design. Still, they are responsible for answering contractor questions and making site visits as needed to support the construction process. Therefore, time is not always ideally allocated, and project teams can experience periods of rushed work as they try to meet specific meeting deadlines or design phase milestones. Both Molly and Rachel experienced the team shifting their priorities away from the learning belief statements when deadlines captured the attention of all involved. Rachel explained her perspective, saying, "Whenever the deadline looms, we don't go back and double-check if the moves that we're making are... we sometimes don't hold ourselves accountable internally to the moves we're making." Recognizing that when time was plentiful, the team was accountable to the statements. Rachel shared a specific project example saying:

> The team was starting to craft things and the connection back to the media center and even the walk to the media center. I think that they've started to talk about what's that experience and how is that shaped by, 'Students should be empowered, they should feel safe.' And so, I think that's where earlier in design, we were seeing it, but then we lose sight of it when it comes to deadline.

Molly saw the statements occasionally become a justification for a design decision after the fact, as teams explained their thought process, indicating that they didn't leverage the statements to create the solution itself, explaining, "The way they explained it didn't make me feel like they were building upon it always and that they were going back after they got so far and trying to tie it in." An example of this might be the decision to create a student lounge area outside of a set of classrooms to take advantage of extra space. Then, after making that architectural change, the designer might justify it by explaining there was some extra space available, so they turned it into a lounge, which also ended up creating a spot for mentors to work with students. Instead of the learning belief statements driving the decision, the concept from the statement was simply an added sell to promote the value of the change.

The AMH resource team members' view of the project team's tendency to rush past priorities when stressed is important in evaluating the visioning tool from a peripheral perspective. Their comprehensive view allows them to look at how other AMH teams working on projects of varying scales with unique clients could leverage a similar or evolved approach to the visioning process evaluated in this study. Upon hearing their reflections and seeing the influence first-hand as a researcher and practitioner, an effective tool should produce results that don't feel like extra work. However, as referenced above and further discussed in Chapter 5, there are elements of how this team experienced the change process themselves that should be weighed as the tool is evaluated for effectiveness and considered for long-term implementation across the firm.

An Ah-Ha Moment of True Co-Creation

A significant realization for the AMH team implementing this new tool into the design process is a more refined empathy for the educator experience during co-creation. Although tools

are constantly leveraged to extract ideas and foster dialogue, a significant portion of co-creation meetings is still spent in presentation mode. This isn't unexpected since the AMH design team is spending their entire workweek focused on making progress on the new facility's design. As a result, when educators reconvene for an update, there is some significant catching up to do. This design team realized the irony of their typical "sit-and-get" method of presentation as they reflected on the sequence of meetings once the blurred programming and schematic design phases had wrapped up. In early programming, the meetings were centered on curiosity and dialogue as the learning belief statements were explored, but as concepts were created and brought forward for educator review, there was a hard shift to PowerPoint presentations full of options from which to select. On one hand, this was what the educators expected from the start – to talk about architecture and make selections related to function and aesthetics. On the other hand, the designers felt a divide form as they struggled to fully engage the client in a virtual setting while sharing progress and design concepts. This realization caused the AMH design resources supporting the team to consider how the co-creation process is facilitated overall. Rachel challenged the typical design approach in general, saying, "how do we really maximize our face time, rather than just filling it with what we think they want to hear? We should be gleaning and really trying to go back and forth, back and forth, back and forth, rather than just sit and get." The team might have realized the time constraints forced them to implement additional co-creation tools to solicit information from the client. These survey and email tools were not a focus of the visioning experience explored through research Question No. 1, but they were used as part of the co-creation process to collect large amounts of detailed information to save time in meetings. Still, the negative result was that a significant portion of the co-creation meetings were

spent reviewing design concepts, not discussing the concepts and how they supported the big picture vision of the Oakwood staff and school district.

At times during presentation-centric meetings, the educators seemed disengaged. Although their body language was difficult to read through the small video screens, they were quiet and looked distracted at times. In these meetings, they would listen to several members of the AMH team present one after another to explain a design concept that included several complex components. After what at times would be 10 to 15 minutes of listening, the educators were asked to provide feedback generically.

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From a practitioner perspective, I struggled to listen to the AMH team feel frustrated by the lack of engagement the educators were demonstrating. I challenged their perception of the situation many times, asking on several occasions what kind of engagement they were looking for vs. what they received. The response was typically connected to the amount of feedback the educators provided as the design concepts were refined. They referenced the virtual barrier each time and speculated that this would not have happened if they were in person. From my role as an educational resource, I connected with Molly and Rachel outside of AMH team meetings, working to identify how we could better design the meeting experience to provide impactful feedback for the team. Although the AMH group explored the topic, the shift was never truly made, and the presentation-centric meetings continued. However, as part of the reflection process for this research, several team members finally had an ah-ha moment that they had missed from the start.

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Debriefs from the AMH team occurred after each co-creation meeting as the resource team members worked to better arm the design team members with appropriate and specific questions to ask for their next interactions with educators after concepts were presented. These meetings internal to AMH allow for the team to relay back what they heard and process what adjustments need to be made to the design as they continue forward. During the focus group discussion and in individual interviews, the AMH team brought some realization forward that perhaps the educators weren't disengaged, but instead, were completely overwhelmed with the ask of their input being vague, as opposed to asking about specific elements and their influence on the learning experience. Leah shared her perspective of the frustrating experiences, saying:

> It helps me by being able to think about how I present and just how I approach talking about things with the client. It really made me, I think, get better in that sense. And also, just challenged us because I think we were really bad at asking, 'So what do you think?'

She mentioned several times she felt that the educators were left behind as the team pushed through design concepts quickly. Leah reflected on this feeling explaining:

> There were times where I felt like maybe we were kind of leaving them behind in a way where... I don't know if it's, of course, early on, you're still learning how to present to these people and what's the best way to make the conversation go. I feel like there was a lot of early on with them, trying to get a conversation going on something and they're just totally not on the same page as us. If I could change anything, it would be how we went into some of those conversations with them. That feeling of feeling like we left them behind.

Early in the co-creation experience, the educators might not have been prepared to talk so specifically about learning, leaving them at a loss as to how to connect their expertise to their

expectations of the design experience. As that meeting sequence continued, the feeling of leaving them behind potentially was from an overwhelming amount of information being shared at once. Molly shared her perspective, explaining:

> We're trying to show them the nuts and bolts that they could care less about, and so it is thinking about how are we framing the question, how are we looking at it from their perspective and what's important to them? Even thinking about their terminology, too, to some extent. And not always necessarily meaning to understand the educators speak, as much as even simplifying the designer language.

As true co-creation is considered, the approach means crafting an experience to extract knowledge from educators while also focusing the presentation approach of design concepts to foster healthy dialogue. This is similar in nature to an educator's approach to "flip" the classroom, providing the information ahead of time to foster collaborative time as a genuine connection and joint creation of ideas. The AMH designers on this project worked through the frustration of being the equivalent of the teacher at the front of the room with a group of disengaged students who provided minimal feedback requested. Yet, their awareness of quality questions and a shift in approach to extracting information was impactful. As the AMH team worked past the struggles of the blurred lines of programming and schematic design, they also fine-tuned their approach with the support of project resources. Olivia reflected on this shift, saying:

> One of the big things that I have learned on this project is, probably specific to working with [project design resources] so extensively, just in the thoughtfulness that we've approached our presentations and the way that we are engaging with them, I have never

been that intentional about crafting the questions that I would ask, and I think that has been really cool.

Long-Term Impact

As the visioning tool is evaluated, the opportunity for long-term impact beyond the co-creation process should be considered. This study shows that the impact of participation is essential, as the principal voluntarily found ways to leverage the learning belief statements in additional ways. The commentary from educators also revealed the consideration for an aspirational vs. reflective approach as it impacts the long-term teaching and learning culture, discussed below.

Principal Continuation

Continuing his early buy-in of the belief-based visioning process, Sam shared additional ways he was using the completed statements. When asked how he saw this work living beyond the design process, Sam began sharing his computer screen with me, saying, “I love it and am using it in other ways already.” He pulled up a presentation he was creating to share his school improvement plan with district administrators, saying, “In many of these, I refer back to the belief statements about students and staff.” His presentation included a slide sharing graphic representation of the final learning belief statements (see Appendix J), and each of his school improvement slides featured a learning belief statement. With each improvement area described through quadrants of why, how, who, and what, Sam had leveraged the staff visions for learning as a supportive statement of *why*. This is a positive indication of Sam’s perception of the process quality through his willingness to share the outcome with administrators across the district. As part of his work as a building principal, the continuation of the learning belief statements

connecting with Shady Bend leaders is unknown, as Sam only shared one presentation example with me during his interview.

A Reflection, not an Aspiration

A final consideration regarding how the visioning process might influence the Oakwood MS staff culture and facility use over time was heard from the educators who carried the learning belief statements through the design experience. A consistent view shared by the teachers involved demonstrated that the learning belief statements were written as a reflection of the work already underway, perhaps not an aspirational view of what they hoped to grow toward as a learning community. There was no specific instruction for reflecting and forming belief statements during the certified teacher visioning session regarding the lens of reflection or aspiration. I did not heavily reinforce one approach or another as I introduced the exercise; I simply encouraged them to consider their beliefs about impactful and engaging learning experiences. With that in mind, the topic of this section doesn't necessarily contradict or support a direction suggested; it is simply an observation of the educator's reflections from my position as a researcher. Lisa explained her perspective of how the learning belief statements reflect their work as educators, saying:

> Hopefully, our beliefs that we came up with are what we're trying to do now, that's what I'm thinking. So as far as changing my thinking about teaching, it hopefully won't, but the opportunities or the different activities that I could do, I think will be supported by the building I'm envisioning.

Jane had similar commentary when she shared her perception of the staff's alignment overall, saying:

> Everybody seems to be focused on the same goals and the same priorities and the same outcomes, with some differences, but as a whole, I really think that we're all pretty aligned and share a lot of the same values and beliefs.

Laura worked through a thought process openly during her interview as she considered the potential for a continuation of the statements beyond the co-creation process, explaining:

> I don't know if we can take it and internalize it somehow, and something we're doing as a building that maybe has nothing to do with you guys, maybe it's something that we as a group can use in other areas of our teaching or in our building culture.

A consideration for how the learning belief statements can influence a teaching and learning culture is further discussed in Chapter 5. An evaluation of statements relative to current and future work by leaders and teachers could reveal an opportunity to support the continued improvement practices in classrooms with students every day.

Influencing Organizational Change

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Armed with the learning belief statements formed by the Oakwood certified teachers and further explored by the educators participating on the co-creation team, I was so excited for the programming process to get rolling. We were going to have the chance to lean on the direct words of educators, focusing on a why that is unique to Oakwood, while having the opportunity to explore and rethink what middle school learning could look like in the Shady Bend School District. During the second co-creation meeting, we talked about student inquiry, using a pool metaphor to understand where the educators were in their efforts to help support the "swim" of students, as well as where they'd like to grow as teachers. One of the educators was amazingly open and vulnerable. She told us how she was excited to grow as an educator and move toward

more of a free inquiry process where students choose a topic to explore. But her excitement was layered with reservation as she explained that extending that trust to eighth-grade students was also scary. Her language was aligning beautifully with the belief -statement of: Staff should be empowered to be vulnerable, take risks and keep growing because the creative journey of teaching allows for growth in both the teacher and student experience. The field of teaching is constantly changing, and learning is life-long.

I was thrilled by the thought of the vulnerability of these educators, allowing for some interesting discussions about how to rethink learning environments beyond what they currently experienced at Oakwood MS. With this openness in mind, the AMH team designed the first co-creation meeting to discuss the concept of spatial ownership and parity. We asked the educators to consider what additional opportunities they and their students may be afforded if many spatial tools were at their disposal, allowing them to select the suitable space for their current content and facilitation approach. No longer did the classroom have to be the jack of all trades, master of none. What if the new facility was a Swiss army knife of buildings, with tools for all sorts of unique teaching and learning experiences? They entered the discussion cautiously, openly admitting their hesitations to this new idea for various traditional reasons. Still, as we discussed the possibilities along with the limitations, they seemed to warm to the idea. The Shady Bend district leaders in the conversation supported the concept of shifting mindsets along with space, and we left the meeting with excitement that perhaps classrooms might not dictate the boundary of learning and replication of the environment. However, as we came together during co-creation meeting No. 3 for continued conversation and example sharing, the brake-pumping began. There was more vocal concern and, even when reminded that one of their learning beliefs was to take risks, this new idea was too far from their comfort zone. In the end, the conversation

nearly went full circle. Initially excited to challenge the status quo, this group of educators was leaning toward a traditional ownership experience in classrooms with limited connection and similar amenities throughout. Although there were moments of openness and the incorporation of ideas that pushed beyond their current facility through the implementation of adjacent spaces for flexible learning, this sequence of meetings was another example of change through my experience as a practitioner. High-level visions for rethinking the approach to facilitating learning in space is countered during the co-creation process when the rubber meets the road. Although the discussions and outcome were frustrating and a little disappointing, my reasoning for understanding the change process as part of the co-creation of new learning environments was confirmed. ***Change is hard. And change is even more challenging when faced with a decision in a limited amount of time.***

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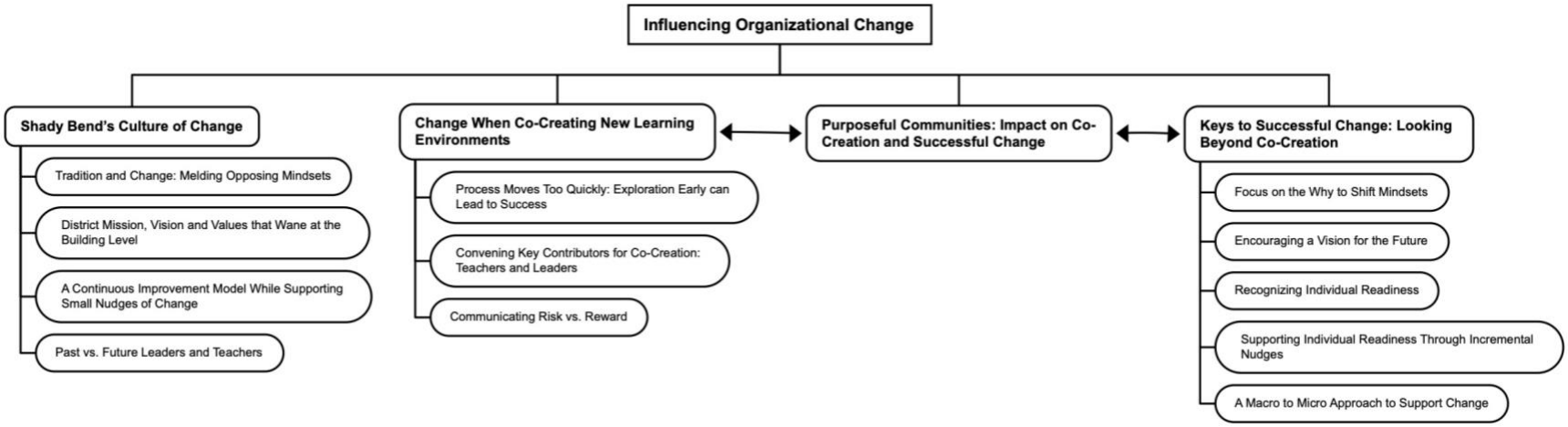
The exploration of research Question No. 2 was a purposeful acknowledgment of how a change process is a multilayered event during the co-creation of new learning environments. In my experience as a practitioner, the situation described above occurs in nearly every design project in some form. The individuals brought together for the co-creation experience often struggle when concepts that challenge their current ways of thinking are brought forward. Yet, they also acknowledge that the building being created will need to serve the school district for decades to come. With this contradiction in thought, there typically comes a tendency to revert to what is comfortable and safe, stopping change in its tracks. Design projects are set in motion by the decisions of school district leaders through bond planning and implementation. Therefore, understanding their view of successful change processes is one piece in the chain of events that leads to building leaders and teachers living their vision outlined in research Question No. 1.

Shady Bend's district leaders shared their perspectives of how organizational change impacts their daily work and significant shifts in the district, such as creating new learning environments. After sharing a glimpse into how the traditions of the district described in the district profile from Chapter 3 impact their approach to change, I will share their view of the design of new learning environments in this process and the keys to successful change in any district situation. A coding structure presented in Figure 17 shows the key themes and their supporting topics from research Question No. 2 along with the connection of purposeful communities.

Figure 17

Research Question Two Coding Structure



Note: A concept map of the coding structure used to present the findings for research Question No. 2 on organizational change.

Shady Bend's Culture of Change

Shady Bend is a Midwestern suburban school district rooted in tradition and working to make daily positive impact on the 4,200 pre-k through grade 12 students it supports. As described in the district and participant profiles in Chapter 3, the district leaders interviewed covered a range of focus areas with varied personal career experience. They each shared perspectives on the culture of change within Shady Bend, which is important to layer in with their views on successful change overall. Shady Bend has a traditional community base, strong district-level mission, vision and values, a heavy focus on continuous improvement, and an acknowledged disparity between past vs. future teachers and leaders, all of which are discussed below.

Tradition and Change: Melding Opposing Mindsets

As described in the profile in Chapter 3, Shady Bend is a district rooted in tradition and full of families looking for a comfortable, small-town approach to educating their children. Although the district's foundation is strong, the traditional mindset woven throughout the community and staff in varying degrees naturally slows the process of change. As a district administrator, Casey feels this firsthand, explaining in their interview:

> Sometimes that pride and tradition makes it difficult to change anything. I think we've encountered some of that tradition that wants to stay alive, and when we ask the question of, 'Is it working?' or we really get back to that simple question of, 'Why are we doing this? Well, we're doing this because this is the way we've always done this.' And in thinking about that, I think specific to our district, we've had a bit more of an uphill battle in terms of our change in progression.

Casey wasn't alone in their thoughts as a colleague Alex echoed them, saying, "There's a notion of 'It worked for me. I grew up here and it worked for me.'" The community's mindset summarized by Casey and Alex could mean that there is a degree of unawareness of how education has evolved throughout the years, shifting instructional approaches and supportive facilities for learning. Another colleague, John, recognizes the need to change the mindset of those outside the district, saying:

> So, most of our parents want their kids to receive a traditional experience. Even though they don't even know [any better]. In some regards, that's just fine and particularly well but in other scenarios, it's to their children's detriment, but they don't know that, and so that's our job to try to educate them.

As they frequently communicate with parents and families, educating parents is the job of every classroom teacher and leader across the district. Still, district leadership carries a unique responsibility in shifting the perception across Shady Bend. John continued, saying, "I find in this community that you have to do a lot of front-end, front-loading of education before you actually make the change but even still, there's still some fallout." As referenced in the district profile in Chapter 3, the demographics are changing, but they are still attracting many risk-averse families. This presents a challenge, and as Alex shared, "When push comes to shove, we are really good at defaulting back to traditional approaches," reinforcing that change is challenging and requires diligence and constant accountability.

District Mission, Vision, and Values that Wane at the Building Level

A district-wide mission, vision, and set of values were formed during the 2010/2011 school year and proudly deployed across Shady Bend in 2012/2013. As a practitioner working in the district, I have seen these district pillars framed and hung at nearly every building I have

visited, and they are listed clearly on the district's website. Alex found this to be a differentiator compared to other career experiences saying:

> One of the biggest differences here to anywhere else I've been, is the way that we really try to promote and utilize our vision, mission, and values, and it's interesting because a huge piece of that, it doesn't say tradition in there, but tradition is Shady Bend.

As new leaders have stepped into district administrative roles, they are asked to represent values they may not have had a hand in personally forming while also navigating the change process with those around them. Casey shared an openness to questioning the lifespan of those nearly 10-year-old statements, sharing:

> Our vision, mission, values, and principles of learning I believe in, but they're not forever things. So, at what point do you draw the line in the sand and say, 'These are our vision and mission values and our principles of learning, and you're going to either get onboard, or you're going to find a different district to work in?' Or do you say, 'Maybe they're not the right vision and mission values and principles of learning?'

Casey speaks directly to those working in buildings across the district. For this study, I was able to hear the perceptions of the district administration and educators connecting with kids in classrooms every day.

As I asked about mission, vision, and values at the building level in Oakwood MS, I received varying answers. Laura, a veteran teacher, shared a 20-year view of how this has played out at Oakwood, saying:

> The last time we re-did the vision and mission and all that, we came up with a three-word... I think it's the vision. It might be the mission, I don't even know which one it is, but that's the one that all the kids could tell you what it is. If you say, 'What do we do at

> Oakwood?' The answer 'We learn, grow and lead.' And so, I feel like we've really pounded it into them.

In her interview, Laura's less tenured peer, Jane, shared:

> It just seems pretty organic and pretty natural. We're a very small staff, and so we get to know each other very well. A lot of us socialize outside of school. It just naturally kind of... It's like all these personalities attracted themselves to one another into this building, and so yeah, I don't recall anything formal being in place to get us all playing as a team.

Neither Laura nor Jane brought forward the district's mission, vision, and values as we discussed the vision at Oakwood. This demonstrates a potential challenge of buy-in and personal connection as a vision shifts from Shady Bend leadership to Oakwood administrators and classroom teachers. It also represents a challenge in designing new learning environments. A facility investment of that magnitude is expected to uphold the district's vision, but it is often co-created heavily with the input of teachers and building leaders who might not feel personally connected to the district vision.

Alex recognized the need for the district administration to support the process of co-creation, saying:

> One of the opportunities I think that we aren't doing a very good job with on our end, is to make sure that the leadership in the building knows what the vision is. You're trying to do that, you're trying to... You got them back together this week, I couldn't make it to that, but like, 'Guys, we gotta have, whatever these things are that grow into this building have to meet whatever this vision is at the district level.' I think that we haven't done a very good job of supporting you in that.

Consideration for how the belief-based vision process explored in research Question No. 1 can be continued beyond the initial staff work session purposefully uphold a district-wide vision is discussed in Chapter 5.

A Continuous Improvement Model While Supporting Small Nudges of Change

Each of the district leaders interviewed referred to Shady Bend's mindset of continuous improvement. Established as part of a comprehensive school improvement plan in 2012, Shady Bend created a five-phase process to resemble the standards of a quality organization as measured by Malcolm Baldridge ("Baldrige performance excellence program," 2021). Since then, they have been working diligently to enforce the mindset of a continuous improvement model adding dashboards to provide a real-time view of progress. Alex shared that beyond the district's mission, vision, and values, this concept is a differentiator for Shady Bend saying:

> The other hallmark of Shady Bend is this notion of quality continuous improvement. And it's not just saying quality continuous improvement as a buzzword, I mean, when I first got here, we went deep, we applied for Baldrige, we did all that. To me, that was really when we were in the thick of thinking about best practice and next practice, and now we run our framework... I don't feel right now we necessarily live our framework, but we run it, and we use it as instruction.

Continuous improvement could be considered Shady Bend's version of incremental nudges toward change. When asked about change through his district administrative role, Neil shared, "When you think about continuous improvement, my whole job and my whole role is about change, and not just change to change, but change based on results, change based on data, making changes to continuously get better." He believes wholeheartedly in the approach,

suggesting that even if the Baldridge model isn't explicitly followed, the elements it contains are essential, explaining:

> You don't have to use the framework, but if you're a leader, you better darn well make sure that you are asking yourself these questions, otherwise, I will tell you anything that you're doing is going to end in complete failure.

Shady Bend wrestles with the traditional mindsets in place as they implement the vision and values they have created. John shared that everyone was on board with district-wide views of supporting differentiated learning, but he explained the struggle of actual implementation, saying:

> But when we talk about allowing retakes, and when we talk about not having hard deadlines or accepting work after a due date, that's when people get more uncomfortable because sometimes it's a little messier to do that. But they articulated very clearly and overwhelmingly that we believe that this is true when it comes to student learning, but when it comes to actually implementing it, they start getting uncomfortable and realize that they may have to change and do things differently, that's when you're like, 'Oh, hold on a second here.'

With that in mind, Shady Bend has layers of leadership in place that provide a flow of support outward across the district, inching closer to connecting with building principals and, in turn, classroom teachers. When interviewing district leaders, the mindset of small nudges toward change becomes increasingly more apparent. Casey shared their view on change, saying, "All I really want to ask people is, how can we get better the next time? How can we improve the next time? That doesn't diminish what we've done, but we know we can get better the next time." Alex spoke to the struggle of helping people continuously improve through a "just right"

challenge for each of them as they are supported to achieving the greater vision, commenting, "What are the baby steps between those two things?" As the district navigates its journey of continuous improvement and implementing change across all learning levels to positively impact student and staff experiences, they are also faced with acknowledging and supporting hundreds of staff members at varying points of their careers.

Past vs. Future Leaders and Teachers

Shady Bend prides itself on a high retention rate, with plenty of educators spending a great deal of their careers within the district. As mentioned in the participant profiles in Chapter 3, three of the teachers on the co-creation team have spent more than 15 years in the district. Casey spoke to this longevity across the district, saying, "We've got a lot of folks who have spent their careers here and they love it here and it's working, but what that does is that limits outside perspective as well." They continued saying:

> One can pride themselves on an organization that has such a high retention rate, but then the opposite question can be asked, 'Why is it so high? Is it something that we're doing? Is it something they're doing? Is it something we're not doing? Are we consistently coaching?'

Although Casey was highly complimentary of some of the educators who have been with the district for a long time, they also recognized that it is often a slow build toward a challenging mindset in some situations. They shared:

> We have no right in a room to complain about a teacher who's been here for 25 years. That was the administrative job 15 years ago to get figured out. And so, if we didn't nip it in the bud then, this is the result.

This creates a challenge for the change process because now the current leader's job is to "undo" years of bad habits that have formed and set-in over time. In addition, it is not only habits or ways of thinking that have formed within the district, but also juggling the vast spectrum of experience levels and personal perspectives built from their past. Neil explained this challenge, sharing:

> One of the challenges that we have in education are generational gaps with staff. We have teachers that have been teaching for 25, 30 years. We've got kids that have been teaching for a year or two, we've got some in between, and with each teacher, as they have grown up through our system, have seen different things, some of them have seen it two or three times because things have kind of evolved and maybe sometimes back around.

He recognized that these perspectives also bring baggage and differences of opinion to co-creation and change overall, explaining:

> As you get feedback and input from teachers and administrators, you've got people looking at this thing through way different lenses; what's gonna be easier for me, what's gonna be more challenging for me, what's gonna get in the way of what I wanna do? Because I think people see them through their own lenses.

One opportunity to evolve and change across a district comes from hiring new educators with fresh perspectives, but even this process to change can be complex. Alex shared the struggle at Shady Bend to shift a hiring mindset, explaining, "I've seen it in our hires. We'd rather go safe than be challenged. That notion of surrounding yourself with people who may know more than you know, as you hire, we don't always like that." They also spoke about the tendency to suffer through a known entity rather than taking a chance on someone new. Views of a traditional, safe, and comfortable school district are woven throughout the case, but Alex's words are a strong

example of how change is not only hard at the teacher level, but also at the district level. Blake, another district administrator, took the concept of change through individuals to the students themselves, sharing:

> Luckily, there's been something right in the educational system and even society that's allowed our youth to think differently than what we think and have thought for years and were trained to think. And I think that's a benefit because I think they're going to change the world.

His idealistic view recognizes Neil's commentary on generational gaps and shifts first presented in this section. It continues with a projection out to generations who have yet to enter the workforce, demonstrating that change is constantly on the horizon.

Change When Co-Creating New Learning Environments

The direct focus of research Question No. 2 was to understand district leaders' perceptions of change relative to the co-creation of new learning environments. Although their perspectives touched on some of the keys of successful change overall, the following sections discuss the key takeaways from the connection of change and co-creation.

Process Moves too Quickly: Exploration Early Can Lead to Success

Discussions with Shady Bend leaders confirmed that the pace of a typical co-creation experience to design new learning environments creates a noticeably short window of time in which decisions that can influence long-term change are made. As a practitioner, I experience this consistently, as described in the opening narrative. From his principal position, Sam felt frustration as we navigated the design process of the new middle school along with the need to make high-level decisions about its use. In his interview, he shared, "I would hate for it to not be perfect, or close to perfect when we have the time to do it." However, from a district

administrative position, Casey's view recognizes that the time within the co-creation process is limited, yet those decisions come at a high cost, explaining:

> When we're talking about organizational change and one of the most expensive investments we will make is building a new school — how long does that change process take? Is it multiple years? Is it a certain number of months? Do we know that incubation period that ultimately results in something positive?

Casey continued, looking past the current experience of co-creating the new middle school bounded by this case as they projected forward, saying:

> Those questions need to start now. So why are we not having meetings about, 'What do you want education to look like in this community in 10 years?' Well, that's a huge question, but if we're not talking about it now, and then we have 14 months or however long it's been [for the new middle school], I think you have folks who start getting paralyzed in their decision.

Leaders saw the designer's role as a critical vehicle for bringing awareness to educators involved in co-creation, communicating the possibilities that a change-focused mindset might bring. From his principal position, Sam looks for the facilitation of the co-creation process to also bring awareness of the challenges ahead to the district leadership. He explained, "It's about challenging district leadership conversations to be the same stuff I'm talking about right now. To be, 'Have you guys thought about doing these things?'" Yet, he recognized that there is a substantial difference between bringing a topic to attention and forcing decisions, saying:

> If I was sitting in [district leadership's] shoes and whether it's this or something else that we're talking about, and you said, 'Districts that haven't made these considerations or talked about these things, we've seen this then happen, and those that have taken the time

> to hash out, these are the positives that we've seen happen.' You're not telling them to do anything. You're just bringing it to their attention.

As a design practitioner, bringing awareness to challenging situations is a constant grappling process as we work to balance our place as a hired consultant as it pertains to the responsibility of the client making the decision. Alex described this consideration a bit differently, sharing the questions a district must ask itself as it creates new facilities and the designer's role in this process, saying:

> Who are we first? Where do we think we are? Where are we actually? Where do we think we need to go? Where could we actually go? The biggest challenge there is in that last one, because we don't know that. That's your job to bring to the table in a way that doesn't freak us out."

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As a practitioner, listening to Alex describe the reflection process school districts need to go through as they navigate the co-creation experience, the comments were not particularly surprising since I've had plenty of similar high-level conversations with school district leaders throughout the years. However, as a researcher, I found it equally fascinating and challenging. They described the bold, complex questions a group of leaders is faced with when guiding the direction of multiple buildings with hundreds of staff members and thousands of students. The questions they posed take a great deal of awareness and understanding of the unique mindsets and community perspectives that create the microcosm of individual school districts. Yet, as designers, we are responsible for coming into the fold relatively quickly, doing our best to build awareness and start on the path on which they can move forward. It is a heavy responsibility to quickly form a purposeful community — a key factor in this research effort — to ensure we are a

trusted partner who can challenge ideas while appropriately balancing the readiness of those involved. My first thought as a practitioner is, I need more time! However, as a researcher, I'm curious to identify the time necessary to make it possible to bring sustainable impact for the long-term that doesn't live only within the co-creation experience.

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Hearing from building leadership and district administration, the view from the top layer was a final and critical consideration. As I interviewed the superintendent, we discussed some of the challenges that have been felt in the Oakwood co-creation experience and others in which he had previously participated. John saw the opportunity to get ahead of the resistance to change that occurs within the relatively short timeframe of co-creation, bringing high-level discussions forward before starting an actual project, explaining:

> It's almost like you have to have a lot of these ideas vetted before you even start the actual design process, right? Like the 12 to 14 months before. It's well before you're... Possibly before you even need it... It's almost like you have to go through this outside of the crisis situation of the final two years leading up to building a building.

However, the typical school district/design firm relationship is a contractual agreement initiated when the bond planning for, or the actual design of, a new facility is set into motion, and the clock is already ticking. John shared:

> I think districts would be smart to have some of these questions answered before they're in a building project and to continually revisit what their expectations are. It would help you a lot if some of these conversations had taken place before, so you can hit the ground running. But it's the reasons why that doesn't exist very often in districts that you work with is the same reasons why when it comes down to it, you guys are working on that 12-

> to 14-month timeline often, but we're working on these perpetual timelines where we're dealing with limited resources.

Financial and personnel resources often are stretched to the limit in public school districts, and finding an approach to balance that with a need for more time to prepare for the effects of change is a crucial finding of this research and further discussed in Chapter 5.

Convening Key Contributors for Co-Creation: Teachers and Leaders

Bringing together the right people during the co-creation process is critical to ensure that both the district leadership's vision and the logistical viewpoints of teachers are included to make positive changes as new environments for learning are created. Sam recognized there was a gap in the vision to implementation as the new middle school co-creation process was underway, explaining:

> From a district and building leadership position, we need to sit down, and we need to talk about what is our vision for middle level education and how is it supporting our vision for the high school? What, programming wise, are we going to make available, or what do we foresee on the horizon? How many kids are going be in the building? Going into the HR piece, so what is that going to do to our staffing? Are we going to need to hire new staff? And get all of that figured out because looking at Oakwood MS in its current existence, in my opinion, is not the correct thing to look at for building the new building.

Sam specifically calls attention to the need to involve district leaders in this visionary aspect and to understand how the ideas translate to the individual building staff and facility. The AMH team experienced this firsthand, and there was consistent dialogue during internal meetings about the need to get the right voices in the room to speak to specific elements of the building. They recognized that the small group of classroom teachers weren't the most appropriate group to

provide direction on certain elements, such as the special education inclusion approach, current and future classroom technology, and various other high-level topics that needed to come from specific areas of expertise. The challenge is in bringing those voices together in a cohesive way, not for agreement's sake but for the sake of broad representation to paint a complete picture. Casey suggested that these conversations shouldn't be easy saying:

> If we have the right people in the room when we talk about spaces and change, and we talk about these visionary conversations, I feel like we would have a little more discord among the group as opposed to one voice who feels like they have to step out and say, 'Hey, I'm ready to change.'

They used the co-creation team as an example, sharing:

> If we had a more diverse group, and I don't mean that just racially or in terms of gender, although those things are important, but just a broader swath of those people. I would like to see some more debate, to be quite honest with you, just to kind of get where we need to be, as opposed to everyone's kind of just moving in the same direction.

Their view is to include the right district leaders in conversations and ensure the right mix of classroom teachers and support staff are present during the co-creation process.

As the educator portion of the co-creation team was formed, Sam created an elegantly democratic process to bring a cross-section of individual perspectives who were interested in participating in the design effort, balanced with individuals who would support their peers. Utilizing an application form, those interested shared information about themselves, agreeing to the commitment of both the co-creation and research process; they also were asked to provide recommendations for others who would be a good fit for the process. As the applications came in, Sam was able to select the four teachers involved based on their unique area of expertise,

their interest in the process, and their peers' support to represent the staff. Sam leading this charge as the principal is a typical approach for the selection of an educator group to become part of the co-creation team during the design process. Typically, a leader from the AMH design team will work with the building principal and/or district leader to suggest a maximum number of participants, which allows for healthy dialogue and the inclusion of various educational content areas they might want to consider. Although the teachers selected represented unique areas of expertise, their tenure in the building was disproportionate on the high side. In addition, their roles came with a unique mindset regarding space. With the majority of the teacher group focused on specialty coursework and electives, such as physical education and Project Lead the Way, the AMH team found the discussion on spatial flexibility challenging. For most, their identity as a teacher was tied to how they delivered unique curriculum in their current rooms using the materials and physical tools essential to their content area. Only one teacher truly embraced the idea of leveraging varying types of space for different instructional approaches to support her subject of teaching. This was the most striking overlap of the two research questions. I saw the co-creation process be propelled forward by the learning belief statements, yet become directly conflicted with elements of change as explored in Question No. 2. Considerations for fostering mindsets of change while forming co-creation teams is discussed further in Chapter 5.

Consideration for how to form a co-creation team that balances leadership implementing a district-wide vision with the unique teachers impacted by the upcoming facility was discussed by the leaders interviewed on change. Casey recognized that in the case of the new middle school, the design team's frustrations weren't unwarranted as they shared, "From my perspective, I don't know that we have the right people in the room," as they referenced previous commentary on supporting challenging dialogue within a group working to discuss big ideas. In

Casey's opinion, the right people in the room should have been considered based on their existing perspectives and mindset on growth, saying:

> When you look at that sort of spectrum, as it relates to change, is there a person who's willing to explore change? Is there a person who's trying to implement some change in their environment? Is there a person who is dedicated to change, and they are seeking precision and change? Or are there those early-adopters who are sharing in the leadership of change? And so, when you look at that spectrum, how do you get a wide variety of those folks in the room?

Neil shared a similar perspective of how a successful group works together in this situation, explaining:

> Everybody is coming at it from a different lens, which is good if it's facilitated in the right way to where your norms and expectations call for open-mindedness, and then when people are being narrow-minded, you call them out and you say, 'Now, we have to look at this more with an open mind, and not just through this tunnel vision.'

This is a significant representation of the need for a purposeful community to be formed as the co-creation process is experienced, fostering challenging dialogue in a healthy way for the betterment of the result. The role of purposeful communities in the design process is discussed further in an upcoming section.

Communicating Risk vs. Reward

With the right team convened to participate in the co-creation process, the designers can support an additional consideration in sustaining change by demonstrating for educators what real-life opportunities their students would experience should a change be made. Blake

emphasized the need for teachers, and even the community, to see the *why* play out in real life, saying:

> If we can demonstrate what the student experience would look like in a different environment than what we typically see as a traditional school or a traditional classroom, if we see the user experience — meaning could be the teacher, it could be a student, it could be parents, community members — how that could that experience be improved, or be different, or be more something that connects to them and addresses their needs better in a different setting?

Tours are one way for educators to see beyond what they currently understand about learning environments. Every teacher involved in this study spoke highly of that experience to broaden their knowledge. Casey supported this from the district level, saying:

> I think the tours that you are able to provide and kind of show what's going on in neighboring districts, I think that's really important because we kind of get focused on where we are and what we're doing, and we kind of forget that others are progressing around us.

Seeing isn't always believing, however, and having the educator who experienced a non-traditional learning environment talk directly with those who might be on the fence can be a crucial element in confirming the possibilities. From his position as principal, Sam shared:

> If you're able to get people into school or invite other educators that have put this process into place or administrators and can speak to, 'Here's what we did, here's why we do it, and here's why we see it as a benefit,' we'll have a lot more productive conversation around that and can really assess whether if that's the direction we want to head.

Seeing and hearing can be beneficial. Still, during the change process of creating new learning environments, Casey also brought forth the consideration of "doing" sharing in their interview:

> There's one thing about allowing these teachers to go in as part of that process of change to see environments, but what would it be like to take a teacher and their students to this school to learn in that environment for a day and get the feedback? So now as a teacher, how did it feel being there? What did you experience?

Casey's commentary comes from the perspective of an experienced educator considering how to shift the "sit-and-get" method of being told how something might work to being an active participant in the process to experience the shift in mindset and environment.

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As a practitioner, I found Casey's proposition an exciting thought to consider when working with educators who are hesitant to move outside of their comfort zone of traditional spaces for learning. Yet, my mind races with the difficulty of including this in the co-creation process because of time constraints, scheduling considerations, and other logistics that stem from facilitating a student experience beyond the walls of their typical school building. This reinforces a need for time allocated before co-creation begins to wrestle with big ideas of changing mindsets and space.

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Finally, the significant period to create the construction documents and build a new learning environment can take 14 months or more, leaving the educators who were involved in the co-creation process to resume their typical jobs in their existing classrooms. As a practitioner, I have found that this period creates some fuzzy memories of the decisions made and the high-level thought processes underway during co-creation. Neil and I discussed the sometimes

surprised reactions to the finished product because of this gap in time and memory. In his interview, he confirmed the value in circling back to those thoughts when the new facility opens, explaining:

> I always bring back people around to the fact that we did have a design team and that we made these decisions and things like that. So, I don't know what this looks like. I'll leave the brainstorming to you, but I do think some type of maybe a follow-up in between [design and use] might be good, so that people do know.

Purposeful Communities: Impact on Co-Creation and Successful Change

The concept of purposeful communities is an important theoretical perspective with which I viewed this research and was a discussion point in my interviews with both designers and educators. I wanted to better understand their views of creating a purposeful community with their peers and their fellow participants in the co-creation process. Building a purposeful community is an essential consideration in the design of new learning environments and is a key component to successful change overall; therefore, I have positioned it in my findings in between those two sections as a connector.

I was curious to understand the perspectives of both educators and designers as they came together for the co-creation process. During interviews, the four components of a purposeful community were presented in a graphic, on which the participants could reflect as they answered the interview questions. With the graphic, I shared that all four components are what come together to foster a purposeful community; there isn't one singular answer. However, for the sake of gauging each person's priorities across the list of purposeful community elements, I asked each designer and educator participant to review the graphic and share their perspectives of which of the four elements they felt would be the most important for forming a community

between designers and educators through the co-creation process. As indicated in Table 4, the response showed that more than 80% of the collective group said a common purpose and outcomes that matter for all is the highest priority, with only one educator and one designer indicating a different preference. This is an important connection between both research questions since the goal of the whole staff visioning process was to create a common set of learning belief statements centered on the purpose and outcomes of learning to guide the co-creation process for all.

Table 4

Purposeful Community Priorities Between Designers and Educators During Co-Creation

Elements of Purposeful Communities	Priority by Designer Participant				Priority by Educator Participant					
	Leah	Molly	Olivia	Rachel	Ben	Jody	John	Kent	Neil	Sam
Purpose and outcomes that matter for all	X	X		X	X	X	X	X	X	
Shared commitment to consistency and agreed upon processes										
Focusing resources appropriately and building on strengths										X
Collective efficacy across the group			X							

Note: A table showing the highest priorities of designers and educators, sorted by role and by participant.

There is also a consideration for how a design team forms a purposeful community with their fellow designers as they work daily to create the architectural solutions to share with the school district teachers and leaders for feedback. As described in the Chapter 3 profiles, this AMH project team included designers with varying years of experience focused on learning environments, each with unique focus areas. Four AMH team members were interviewed, including one architectural designer/project leader, an interior designer, and two design resources. Their responses (see Table 5) were quite different when answering the highest priority for design teams to form purposeful communities, with three of the four indicating that a prevailing sense of optimism is key to working together.

Table 5

Purposeful Community Priorities Between Designers During Co-Creation

Elements of Purposeful Communities	Priority by Designer Participant			
	Leah	Molly	Olivia	Rachel
Purpose and outcomes that matter for all				X
Shared commitment to consistency and agreed upon processes				
Focusing resources appropriately and building on strengths				
Collective efficacy across the group	X	X	X	

Note: A table showing the highest priority of a design team acting as a purposeful community during the co-creation process.

Finally, the purposeful community concept formed by Goodwin et al. (2016) was created with educators in mind, so their perceptions of the priorities amongst educators also was of importance. This recognizes that successful change that lives on beyond the co-creation experience comes from the work of purposeful communities of educators in school buildings every day. When discussing educators working together, there was a significant difference across the priorities compared to the scenarios described above. Table 6 shows 50% of the participants emphasized focused resources and building on strengths; 33% said a can-do attitude, and 17% placed priority on the shared purpose and outcomes, which saw an overwhelming response from the designer and educator team answers referenced above.

Table 6

Purposeful Community Priorities Between Educators in School Buildings

Elements of Purposeful Communities	Priority by Educator Participant					
	Ben	Jody	John	Kent	Neil	Sam
Purpose and outcomes that matter for all					X	
Shared commitment to consistency and agreed upon processes						
Focusing resources appropriately and building on strengths		X	X			X
Collective efficacy across the group	X			X		

Note: A table showing the highest priority of an educator team acting as a purposeful community during their daily work in school buildings.

One could argue that because each of the four elements shared is important to create a purposeful community, having variation across the answers is positive. With educators focused on unique areas, perhaps a purposeful community can form with ease. However, there is also the chance that as new ideas are implemented, each person could be focused on the area they feel is most important, either leaving the group behind or having difficulty reaching a consensus. With this in mind, early discussions about each of these four areas through groups of leaders and teachers working together can reveal a more comprehensive picture of success, some might not realize is possible.

Keys to Successful Change: Managing Personal Mindsets and Transitions

School systems are faced with elements of change in areas far beyond the co-creation process. To better understand how educators face change and navigate the path toward success, I interviewed Shady Bend administrators and found the following categories of thought: A focus on the *why* to shift mindsets; encouraging a vision for the future; recognizing individual readiness for change varies for each person; incremental nudges as a safe way to navigate differences in readiness; and a macro to micro approach involving all layers of school structures in the change process. Each of these areas is explored in detail below.

Focus on the Why to Shift Mindsets

The need to focus on the *why* as change is navigated was a unanimous consideration among the Shady Bend leaders I interviewed. Without that *why*, change is an uphill battle, as John described, “If you’re going to move people, you have to make sure that they understand the *why*. And if they don’t understand the *why*, if it’s all about the what and they don’t get the why then it’s going to be a struggle.” He pointed out that perhaps change can occur without the heavy focus on the *why*, but it will take far more time to be impactful, saying, “Making sure that you’re

thoroughly explaining and engaging them in understanding the *why*… I think you can move large organizations a lot faster when you can do that well." His voice was supported by Blake, who advocated for making the process to achieve the *why* a manageable one, saying, "Breaking down the *why* into steps is also beneficial because it's a journey, and you kind of accomplish certain things along that journey that build on each other." Neil's position is to take a consistent approach to focus on that *why*. He shared questions he asks individuals and groups as they navigate change, saying:

> I always repeat, why are we here, why are we doing this and who are we doing it for? What were their needs in doing this and how does this match with our goals and our actions? What is our workforce going to need for capacity and capability, for this to be successful and do we need to look at any of our processes? How are we going to measure the success of it, and when are we going to look at the results?

Neil's focus on continuous improvement processes as the key to successful change can be seen in his tactical questioning nature. But the reality is, change is different for everyone. As John, who is the district superintendent, said, "It really is a grappling process because not everybody looks at change the same way as I do." However, one of his leaders in academic services, Alex, eloquently shared how to acknowledge and shift those various mindsets, explaining:

> In order to assist organizations in managing change, we first have to recognize that change is good and healthy, not change for change's sake, but change for a change in outcomes. And it's really easier to not do that, so you have to have the mindset that that's not what your goal is, it's not ease. You must be comfortable with people not always being happy with you. It's about changing mindsets - thinking bigger than ourselves and bigger than our little bubble.

Alex's confidence as a leader is seen as they acknowledge that it is expected and accepted to have the change process result in opinions that are not always favorable, but it is the charge of the leader to push forward for the greater good.

Encouraging a Vision for the Future

In addition to focusing on the *why*, including a vision for the future is critical as successful change processes are navigated. This was articulated in commentary resulting from the discussion about successful co-creation through the influence of the belief-based visioning process for educators and designers, as well as through suggestions to help educators see the tangible rewards in student and teacher experiences if they were to shift their mindsets on space. Sam supported this, saying, "I love that we did this from the teacher aspect, love that we talked about teaching and learning beliefs. I think that's huge. I think that was a great way to go about [successful change]." Neil's view of vision in regard to change was from a larger perspective, saying, "Transparency, the visioning, this is what we're seeing, this is what we're going to. Having people converse about that through that process, like we're doing now, it helps people through the change." Alex positioned it as asking big-picture questions, such as "Who are we first? Where do we think we are? Where are we actually? Where do we think we need to go? Where could we actually go?" Yet, these questions can be overwhelming for some, especially those outside of leadership. Blake shared cautionary statements, saying:

> Some of the visioning process for a lot of people can be difficult and you can lose them because they're having a hard time staying engaged, but if it's broken down into smaller blocks that build on each other with that momentum, I think it keeps them more engaged along the way.

Recognizing individual readiness is crucial beyond the visioning process and considering how each person will feel about the change process is critical for success.

Recognizing Individual Readiness

Each person comes into the change process from a unique perspective and experiences a change in varying magnitudes (Bartunek & Moch, 1987). John's experience at Shady Bend includes working with everyone from teachers and parents to community and business members, so his view is broad. He shared:

> Organizational change is a perpetual grappling process because organizational change is viewed different by all. Depending on where you are and how you are involved in the organization, and what benefits you may or may not receive, whether that's real or perceived.

Blake also spoke to perceptions during the change process, explaining:

> Having the understanding that those perceptions that others have, real or not, are important to manage because you're not going to make progress and change if you don't recognize, acknowledge, listen to, accept that information, and go ahead and get into that dialogue.

Although I did not explicitly interview teachers about the change process, their perspectives and positions regarding the change process was brought up from both Shady Bend district leaders and the Oakwood teachers themselves throughout this study. Casey spoke to bringing in a variety of voices when navigating a change process in school systems, sharing:

> Exploration, implementation, precision, and shared leadership… when you look at that sort of spectrum, as it relates to change, is there a person who's willing to explore change? Is there a person who's trying to implement some change in their environment?

> Is there a person who is dedicated to change, and they are seeking precision and change? Or are there those, the early adopters who are sharing in the leadership of change? And so, when you look at that spectrum, how do you get a wide variety of those folks in the room?

As teachers were interviewed as part of research Question No. 1, their commentary also alluded to change elements. The discussion about classroom ownership and flexible spaces for learning continued through the co-creation process, and several teachers shared their views of the shift to a new experience. Laura explained, "There's going to have to be some targeted assistance or targeted encouragement or something to get some people to feel comfortable with putting themselves and their teaching on display in that way." A fellow teacher, Jane, spoke not to the need to feel comfortable, but to the need to embrace times of discomfort, saying, "We don't want to be stagnant and never evolve or never grow, so yeah, we need to be uncomfortable every now and then." Their two distinct views are only one example of a difference in readiness for change and navigating the associated struggles with the process. However, feelings of discomfort should not be extreme, as Neil expressed a need to make that discomfort manageable, saying:

> We have to meet people where they are, and then give them doses of un-comfortability instead of... I think sometimes what we do is we throw crap at them that is so far out of their comfort zone that there's no way they're going to grasp it, and so I think you have to know your audience.

With that comment in mind, along with Shady Bend's traditional roots, it is not surprising that a comfortable approach for this district is to consider how to make incremental nudges toward successful change.

Supporting Individual Readiness Through Incremental Nudges

Recognizing individual perception of and readiness for change means those who don't wholly embrace the concept of being uncomfortable as they evolve and grow might need small nudges to bring them forward with a positive mindset. Casey acknowledged that these nudges could be all-encompassing, coming from areas of instruction, curriculum or space, saying:

> Maybe that's the wrong word, push and change, and all this, what about just these micro-nudges in thinking? So how can we nudge your thinking as it relates to space or assessment or a curriculum? And in doing that, in an organization, once you nudge folks enough, you get these small increments of change.

This could be considered a view of how first-order change can be a more comfortable experience than a holistic shift in mindsets, but over time, second-order change may be made. Support is vital, as Blake explains:

> It means things that can help us get better and you don't have to think about doing it alone. We have to think about a small approach that moves us slowly into that direction, and then be able to show what it looks like.

Alex echoed his statements, associating it to the design process they have experienced, saying:

> There's this notion of, 'Where do you want to end up?' Because your approach is such that you want this building to be living, breathing and useful 20 years from now, right? Not just day one, how do you build it out for that while realizing that the "just right" challenge for them maybe is not having 100% access to their classroom all day? What are the baby steps between those things?

Even teachers recognize the need for support in incremental nudges. Noah spoke about moving into the new facility, sharing:

> Our comfort place is to go to what we know, so then you're not using the new stuff just because it's like, 'Oh, it's overwhelming', which means, I'm just going to go back to what I've been doing, because that's what I know, and so you don't want to miss out on... to improve.

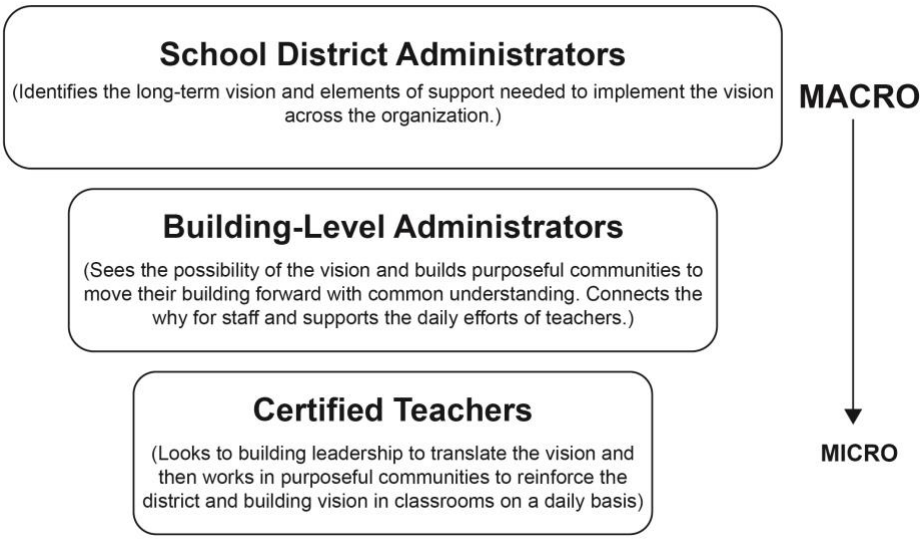
Although recognizing individual readiness and perception of change is a critical element of successful change processes overall, it conflicts with the typical design process and resulting life of facilities. Supporting small nudges toward change can be a healthy approach to acknowledge individual readiness; however, when it comes to creating new learning environments, a slight nudge of change can create the risk of the building being "outpaced" quickly before renovations are necessary. This consideration is further discussed in Chapter 5.

Macro to Micro Purposeful Communities to Support Change Processes

Impacting change in school systems comes from a macro to micro approach, involving district administration, building administration, and classroom teachers (see Figure 18).

Figure 18

Macro to Micro Role Impact on Change in School Systems



Note: A diagram showing the macro impact of district administrators, middle impact of building-level administrators and micro impact of certified teachers on the change process in schools.

The district administration's role is to identify the long-term vision and elements of support needed to implement the vision across the organization. Casey acknowledged the extra layer of responsibility felt at the district level, explaining:

> I can complain and moan in my classroom, but then I'm [at the district level] and I see the inner workings of things and the reverberation of change and how long it takes… I had to reposition myself mentally. It's on the forefront of district level leaders and principals saying, 'This is our vision to move forward in terms of education. I need your perception as a teacher of what the form might be to allow this function to occur, whatever that vision is.'

Neil echoed the bigger picture vision they are responsible for carrying, saying, "You have to get people to see things with an open mind and a larger perspective and things in its totality, and not just in their own little bubble." Yet, Casey felt some remorse about the lacking role of district leadership as part of the co-creation process for the new Oakwood MS, saying:

> It's the school district — and I'm part of this and need to own a part of that — just coming into the meeting and saying, 'this is where we want to be in five to 10 years, or whatever it is. We're not asking your opinion about it, but we are asking how you see this best playing out in these different options of a structure and space.' I don't know that we've done that so well.

However, in Casey's opinion, leadership roles also come with the responsibility to be humble, learning alongside those at the building level, sharing in an interview:

> In being in some of these calls, there are my own colleagues that I look at and say, 'This person's full of it. They're coming to the table feeling like they've got all these answers for everything, when really, all they need to come and say is, I don't know.'

This reluctance to acknowledge gaps in understanding could be due to a natural separation of leaders from the logistical elements that happen in classrooms every day. Alex explained the gap sharing:

> It's a backward chaining piece, and unfortunately, at least my experience has been, the higher you go up in the food chain, the less they care about, probably appropriately - and I just don't work this way - the less they care about the nitty-gritty pieces.

John admitted this does, in fact, happen from his role, saying:

> I'm just as guilty as anybody because I've gone into Blake's office and he's catching me up to what's going on with the design meetings, and we're talking about it. I'm that guy that sometimes I'll just say, 'Blake, just get the building done and get kids in.'

Although the idealistic view is for district leadership to support principals who will carry the vision forward, these building leaders feel the opposite reality. From his perspective as principal, Sam explained, saying, "District leadership, their role is to cast vision for the district, and then they work with administrators to implement that vision for their buildings. That's what my experience had been previously, and I don't see that as much." Sam's perception appeared to be accurate, as Alex shared nearly the same perspective from the position of district administration, explaining, "One of the opportunities I think that we aren't doing a very good job with on our end is to make sure that the leadership in the building knows what the vision is." Shifting from the highest layer of consideration for vision and support down to the building administration layer means putting this vision into action.

The building-level administration group, including the principal, need to see the possibility of the vision and trust in the support provided through district administration to move their building forward with purpose and positivity. They are both the orchestra conductor and the daily messenger as they work with teachers and students across their facility. John's view placed great responsibility on the building principal, saying:

> In terms of a layered approach, I think I still see value in developing those belief statements and holding yourself and others accountable to those belief statements, but I do... But I also know that when it comes to implementing and... That there will be some discomfort, there will be pushback. And this is where I think our building leaders are so important, because like district leaders, we can chart a path and work with our front-line people to chart that path. But when it comes to implementing, our building principals are there continuing to reinforce the why and continuing to provide them with support systems that will help them implement during implementation. And I also think that if they're really good, they're continuing to talk and have open communication with our front-line, our teachers, about what barriers they can remove that help them deliver these expectations.

It takes the work of many to provide support to the building leaders who will carry forward the vision while fostering a solid culture of support. Casey shared that it should be deliberate and consistent, saying, "So many of us want to save the day and change everything at once, and if that doesn't work, the trickle-down effect is very laborious from central office to get to the students." Blake spoke to the continuation of the ideas explored in the visioning and co-creation process, saying:

> Sam ought to embrace, in his professional development with his staff that, 'Okay, what can we do instructionally now in this new space? What are we going to focus on?' Because now we have these new opportunities, we have this beautiful building, and the goal was to support and enhance your instruction and for kids learning, what are we going to do differently?

Yet, Sam feels as though he is on an island, bringing up matters he thinks district leadership should consider, saying:

> And so now, if our staffing changes, and if they let us build a master schedule that allows for two plans, that can all change. And that's what I was trying to say in that district level leadership meeting, but I didn't feel like... I'm either not being heard, or they're not taking the time to think through that.

Sam has his work cut out for him, charting his course as a relatively new building leader, working through a global pandemic, and looking to implement the vision of a district he doesn't always understand. Yet, all this happens as he creates a new facility for future learners. The responsibility for change doesn't stop with the building principal; it continues through the daily work of teachers in classrooms across the district.

Recognizing that the vision the school district cast must make its way through the building leader and into the hands of classroom teachers, the potential result from entering a change process, even first-order change, needs to be shared along the way. According to Alex, these educators are at their limit of juggling the heavy weight of their daily routines, explaining:

> On the educator side, there's only a certain amount of bandwidth that you have to be able to put towards that, so that when I'm doing that every day, and now you want to stretch me and have me think about doing that in a different end, I tap out.

Teachers aren't opposed to trying new things and making positive progress; however, they are looking to the leadership layers above for the vision and the actionable items. Blake shared, "I've got a lot of staff that just would say, 'Just tell me what you want me to do, and I'll show up every day and do it and do it to the best of my ability.'" When it comes to change, the challenge is, how involved should the average classroom teacher be? Alex shared, "I also don't know that the people who will be experiencing the change are the right audience to ask about what the change should look like." Alex also was concerned about how much feedback is reasonable to ask for, recognizing that any feedback should be genuinely considered, explaining:

> My standpoint when it comes to shared leadership with teachers is that I have always tried to be really careful that when I ask for opinions or feedback that I'm willing to use whatever I hear. So, I don't ask questions that I don't really want the answer to.

In continued conversation, Alex referenced a need to provide support as concepts are created through change processes, saying:

> At the heart of an educator is an architect, okay? So, you want to build and scaffold learning to create, right? That's exactly what you do as an architect. You want to put these things in place that result in this new thing.

Alex shared an analogy that the classroom teacher is the builder, taking the blueprints that those with the vision have been laid out for them and putting them into action. However, as they spoke, they brought forward concepts of culture and community and, in the case of the new middle school, a community and culture that will need to reform as new teachers come on board. With this in mind, the teacher's ability to make change comes through the act of forming purposeful communities with those around them, understanding how the district vision translates to their unique building with their kids. They must look to the building principal to translate how the

vision suits them and what actions they can take to shift ideas into reality. Yet, that building principal also needs support from above. If they don't understand the vision themselves and feel empowered to facilitate change, then the vision is only as good as the thought process to create it or the words on paper that it represents.

Summary

Through the research process, overlapping elements between research Questions No. 1 and No. 2 were seen, justifying the concept of considering change through a macro to micro lens. The belief-based visioning process implemented at the building level was an exercise to develop a common purpose and outcomes that would reach each certified teacher involved in the process to shift to an unfamiliar environment for middle school learning. Recognizing that the opportunity to build a new middle school was only made possible by the big-picture planning of the Shady Bend leadership as they facilitated bond issue planning, the macro view of those leaders initiating change was also a critical layer of understanding. The findings for both research questions are summarized below.

Evaluating the belief-based visioning process outlined in research Question No. 1 revealed that although the educators were surprised by the early focus on learning instead of architecture, they appreciated the rare opportunity to look inward to reflect on their personal beliefs about teaching and learning. In addition, connecting with fellow teachers in an interdisciplinary format was valued as they were able to hear unique perspectives from peers they don't often see. Each teacher interviewed shared that future visioning efforts would benefit from more time provided for individual reflection, small group work, and large group dialogue, and that an in-person experience would foster better communication and collaboration. Finally,

providing an outside facilitator as part of the small group work would allow everyone involved to comfortably share and participate as opposed to someone from the inside carrying the stress.

Final learning belief statements were leveraged during the early co-creation phases for the new middle school. The implementation of this new tool brought an extended emphasis on learning and significantly blurred the lines between the first two phases of the process, schematic design, and design development. As related to impactful learning experiences, the AMH designers working on the project discovered they needed more time with the educators to dig deep and understand the uniqueness of Oakwood. The virtual nature of co-creation meetings was challenging for a genuine connection between designers and educators as they navigated the design process, but even with the digital divide, the language included in the final learning belief statements was leveraged by all roles throughout the co-creation process. As concepts were presented and discussed, and the educators shared opinions and opportunities for each suggested solution, they incorporated language from the statements formed by the full Oakwood certified teaching staff.

The AMH designers involved in the project felt the visioning process and outcome provided a critical connection to the educator's perceptions rather than a process facilitated to simply "check the box" during initial design meetings. However, as the educators told stories about the experiences they hoped to create for students and the logistical challenges teachers often face, the information became interwoven as opposed to neatly separated by space types. The stories provided real-world examples to design toward; however, the AMH team struggled to split the high-quality information into chunks they could manage and apply at various design phases within the co-creation process. As deadlines loomed and the AMH team became rushed, it was easy to put the learning belief statements on the back burner, but the AMH design

resources worked to bring them back to the forefront and remind the project designers of the quality information on which they could rely. Finally, the experience was a true realization of the co-creation process for the designers involved. They realized that a shift needed to be made away from the “sit-and-get” experiences of presentations, and instead finding unique ways to extract input to maximize face time with the educators. They gained empathy for the student and staff roles for which they design and reshaped the way they considered asking questions and facilitating co-creation. This awareness has a ripple effect that will live on in the walls of AMH far beyond the scope of the new Oakwood MS project.

The AMH designers are not the only ones who saw long-term impact from the process. The Oakwood principal believed in the outcome to the extent of including the learning belief statements in his school improvement plans, which were shared with administrators across the district. As the new middle school opening date approaches, Oakwood administrators and teachers will experience a notable change process. How the principal will leverage the collective vision of the certified teachers during the preparation for and the transition into the new facility is yet to be seen. This common purpose and vision is one of the four elements of a purposeful community where educators work to bring positive change. Exploring this tool was a valuable way to understand one element of that process at the micro view.

As research Question No. 2 was explored, so was Shady Bend’s existing culture of change, providing a foundational understanding of leadership attitudes and staff readiness toward a complex topic that reaches all layers of the organization. Shady Bend is a traditional district, which makes change tricky from the start. The school district has a well-defined mission, vision and set of values proudly displayed across the district, but these elements appear to wane at the building level, based on the fact that the Oakwood staff did not reference the existing statements

at all during the process. Shady Bend prides itself on a continuous improvement approach, which attacks progress in manageable and incremental steps. As they support a mindset of continuous improvement, these leaders also support small nudges toward change. This is a comfortable way to handle a challenge of disparity between staff and leaders who have a great deal of variation in their years of experience and preferred approach toward teaching.

When considering successful change through the co-creation of new learning environments, results show that the typical design process moves far too quickly for the necessary exploration of complex, change-based concepts and exploration before the design process can bring greater success. An essential element of this success is bringing the right people to the co-creation conversation. This includes school district leaders who are willing to reiterate the long-term vision of the district, as well as educators who have a flexible mindset, allowing them to embrace moments of discomfort while grappling with the future unknowns to design environments that not only will serve the district now, but also serve it far into the future. To help ease that discomfort, educators need to see the improved experiences their decisions on change will support, communicating the potential rewards their students could experience if educators risk changing what they believe to be true about spaces for learning.

The connection of ideas and opportunities for students created from that discussion is rooted in the concept of purposeful communities. A purposeful community should form between designers and educators working together to create new environments for learning to ensure they make positive change through a healthy culture. Beyond co-creation, the concepts of a purposeful community become a crucial link to successful change overall. Shady Bend leaders shared the importance of focusing on the *why* as they work to shift mindsets and routines and craft a vision for the future accepted by all. However, the individual readiness of each person involved cannot

be ignored. Each person who navigates this change process will experience it in different magnitudes and with differing degrees of open-mindedness to the process itself. Incremental nudges can help bring each person and building along in a comfortable way. Taking a macro to micro approach can ensure the vision is crafted at the district level, implemented by building leaders and supported by staff through student experiences.

Chapter 5 - Summary, Discussion, and Implications

The purpose of this study was to evaluate a belief-based visioning effort during the co-creation of new learning environments as perceived by educators and designers and to understand the school district administrator's view of organizational change implemented through the creation of new learning environments and beyond. Although I explored the research questions separately, the findings became significantly intertwined during the analysis process when connecting visioning and change concepts from a macro to micro level. This chapter extends the discussion of the findings with an ongoing focus on the overlap of the two research questions, as well as the ongoing synthesis of those findings with literature reviewed in Chapter 2. The literature intertwined throughout this chapter covers a collection of work spanning design, education and change leadership, and the outcomes from this case study connect to all literature topics previously reviewed in Chapter 2. As a result, these specific elements are discussed in this chapter as part of implications for practice and a means for future research.

Rethinking the Visioning and Co-Creation Process: Time and Change

Research Question No. 1 focused on evaluating a belief-based visioning experience for Oakwood MS certified teachers and an understanding of how the learning belief statements impacted the co-creation process to design a new middle school. I found the new tool had merit, and for the Oakwood educators the visioning experience was well received. Still, I did learn of several modifications to the process to improve future versions. The most vital suggestion from the educators was a desire for more time to individually reflect and more time to collaborate with colleagues. Although this is a simple logistical improvement item regarding the visioning tool, time continued to be a recurring theme throughout this research as I continued my work to understand how leaders view the opportunity to influence organizational change through co-

creation as part of research Question No. 2. This research revealed that the typical timeframe of the co-creation process to design new learning environments directly conflicts with what we know from the literature about navigating organizational change in healthy ways. As new buildings are occupied, the challenging work continues as the change concepts discussed in regard to space now must be put into action every day through classroom teachers. This continued effort requires time for school district and building leaders to focus on critical elements of change leadership to foster purposeful communities and a culture of continued learning and growth. Time at the micro level is a significant finding in evaluating the belief-based visioning experience, and considerations for time also can be seen at the macro level when it comes to making positive change in school districts in tandem with the co-creation of new learning environments. This macro to micro view of time is explored at length below.

Rethinking the Visioning Tool: Considering Time and Change at the Micro Level

Recognizing that a critical component of successful change is having a vision in place to foster collective effort, the belief-based visioning experience from research Question No. 1 was implemented as part of this study's co-creation process. Although Shady Bend had a mission, vision, and values already in place, there was no significant connection to them at the building level in Oakwood. Chenoweth and Everhart (2013) and Cox (2005) share that this is not uncommon. Many building leaders and teachers find themselves with a district-wide vision on which they had no input, and are left wondering what part they play in its implementation. Lambert (1998), Goodwin et al. (2016), and Fullan (2007) all recommend avoiding a top-down dictation of vision, focusing instead on cohesion in ideas through reflection on personal beliefs; therefore, I created the belief-based visioning process in hopes of starting the co-creation process with a strong understanding of the types of learning experiences the new Oakwood MS should

support. Implementing this visioning process before co-creating the new middle school was a direct example of this recommended approach. Individuals were asked to reflect, then form cohesion together as a staff. Its implementation was a key connection to both theoretical frameworks selected for this study; *Balanced Leadership* change theory (Goodwin et al., 2016), and co-creation (Sanders & Stappers, 2008).

As discussed in previous chapters, *Balanced Leadership* (Goodwin et al., 2016) is a change theory focused on strong school cultures implemented through purposeful communities. Purposeful communities are created from four characteristics: (a) purpose and outcomes that matter for all; (b) agreed upon processes; (c) use of all available assets; and (d) collective efficacy. By exploring the formation of a building-wide vision for learning at Oakwood MS, I was hopeful that a purposeful community of educators could be fostered with a purpose and outcome that mattered to all. This common purpose then could translate to the new middle school co-creation process. Co-creation, the second theoretical framework selected, is the term for this study to represent collective creativity and joint knowledge formation through a constructionist mindset (Crotty, 1998; Sanders & Stappers, 2008). Elements of co-creation are woven throughout this study, but they began with the visioning experience. The participatory approach of the case study itself included Sam, the building principal, as an immediate contributor to the belief-based visioning process. He helped craft both the experience for the entire staff and the digital and analog materials used for the work session. This mindset continued as the certified teaching staff was invited to help form the statements, supporting co-creation at the building level. Finally, the AMH designers used the learning belief statements as a tool to facilitate the co-creation process to design the new middle school, focusing on the purpose and outcomes that would matter to both designers and educators.

It was clear through the research process that additional time would have been created a more productive outcome for all through the visioning experience. If a continued COVID-19 climate required future versions to be a virtual experience, a change in time allocation for each section of the work session should be made. By taking a similar approach to the visioning experience to what teachers do to “flip” the classroom, an introductory video describing the intent of the visioning effort, along with a physical worksheet packet — or something akin to it — could have been accessed by certified teaching staff three days prior to the work session. A flipped work session approach could provide individuals with more time to reflect, record their thoughts, and keep these relevant topics top of mind in the days before the certified staff gathered to collaborate. These teachers then would come to the small and large group portions of the work session ready to share and discuss with their peers.

With small group time increased to at least 45 minutes, interdisciplinary teams of educators would have the chance to move beyond simply reporting their personal statements. An extended timeframe could be further supported by providing a neutral scribe, as indicated by teacher preferences in Chapter 4, to provide all teachers equal opportunity to contribute as opposed to having one teacher lead the group and record the outcome. Another option would be to use a collaborative virtual tool, such as a Google Jamboard session, which would allow each person to be in charge of recording their thoughts that would then be visible to the group. As the individual thoughts shift to collaboration amongst the small groups, either of these alternate approaches would support an environment of curiosity and a dialogue about commonalities and differences. Finally, increasing the time for the large group portion of the work session to at least 60 minutes would provide the opportunity for small groups to present their ideas through their own voices, as opposed to the principal quickly searching for common themes that appeared on

the Google Sheet. The large group time might need to be scaled depending on the size of the certified staff, but for the group of Oakwood MS teachers, 60 minutes likely would be adequate for small groups to share and provide time for healthy discussion amongst the full staff. In addition, encouraging teachers to share their small group statements instead of the principal rushing through the summation also would allow the leadership culture to shift away from the principal as the sole leader.

As the principal openly in front of the staff shifts his or her role to becoming a fellow learner, he or she is supporting the concept of teacher leadership defined by York-Barr and Duke (2004) as "The process by which teachers, individually or collectively, influence their colleagues, principals, and other members of school communities to improve teaching and learning practices with the aim of increased student learning and achievement" (p. 287). Discussions in the large group setting could center on understanding if the belief statements had been written through the eyes of students or teachers and if they are aspirational or simply a reflection of the current reality. With a staff-wide understanding and buy-in of the learning belief statements that have been jointly formed, there is a significant opportunity for the concepts to be carried forward through professional learning communities (Gruenert, 2017). As teachers work in these learning communities, they can translate building-wide visions for learning into focusing on the unique needs of students in high-quality learning experiences and environments to see positive results. However, ensuring that the building is moving with purpose toward the greater vision of learning that district leaders have in mind is essential to ensure cohesion across the organization. Time needs to be allocated to work from the bottom up and the top down regarding visioning, which reveals a critical middle, or transitional, point of the macro to micro consideration for time regarding change in this research.

Taking Time to Connect the Macro and Micro to Support Healthy Change

Shady Bend is an example of a school district that has put significant work into its district-wide mission, vision, values and learning principles. These are publicly shared with the community and posted at each facility within the district. However, as discussed in Chapter 4, educators from Oakwood MS did not reference the district's mission, vision, and values during the work session or in their interviews. During my interviews with district leaders, it was referenced that perhaps those elements should not live on forever but should be reconsidered strategically. This study reconfirmed that a district-wide vision dictated from the top is not likely to resonate with teachers in classrooms in a purposeful way, and that those documented visions fade and become disconnected over time. Yet, individual buildings setting off down their own path might not create the district-wide cohesion that leaders and parents value for quality education at all learning levels in a school district. With this in mind, a blended approach should be considered.

With the accommodation of additional time to improve the building-level visioning process, as indicated above, positioning full-staff learning beliefs to be formed with an aspirational vision in mind, not simply a current reality, could further improve the visioning tool and co-creation process. Time then can be allocated after the initial work session to encourage teachers and building leaders to reflect on which beliefs are currently receiving attention and enthusiasm and which ones could use more dedicated effort to grow and evolve their practices. The next step would be to connect to the district's mission, vision and values through a participatory workshop focused on identifying similarities and differences. This allows for the district vision to be upheld and to be founded on the individual buy-in and commitment at the building level, avoiding the concern of a vision being simply a dictation. As district leadership

observes and participates in these building-level sessions to provide support and understanding, they might also become aware of staff's unique variations in beliefs across learning levels. This additional layer of knowledge could inform future district visioning efforts and ongoing support of change practices in large organizations. Finally, visioning done at the macro and micro levels will require additional time for school district and building leaders as they work to meet teachers where they are, while also setting an overall pace for the district to guide them toward future views of high-quality learning for students of all ages. Time considerations at the micro and middle layers connect directly to visioning; however, the complexity builds at the macro layer as the formed visions reveal a conflict with the timing of the co-creation process and the long-term implementation considerations of these learning beliefs over time.

Rethinking the Co-Creation Process: Considering Time and Change at the Macro Level

As the findings of this study confirmed, a healthy change process requires time to jointly craft a vision for the future, wrestle with loss concepts, and identify the opportunities for and magnitudes of change that individuals might uniquely experience. Change is woven throughout the entire organization in school districts and covers areas like teaching and learning practices, equity and inclusion efforts, and student and community support through facilities. As discussed above, district leadership working to positively influence student learning set in place visionary elements that are generally represented through a collaboratively developed and publicly posted mission or vision to represent the entire district. These can be purposefully connected to building-level beliefs about learning, whether or not the co-creation of new learning facilities is on the horizon. Additionally, multiyear strategic plans could be in place at the district level to

implement the vision as leaders look to positively impact student achievement through high-quality teacher hiring, development efforts, and innovative instructional practices.

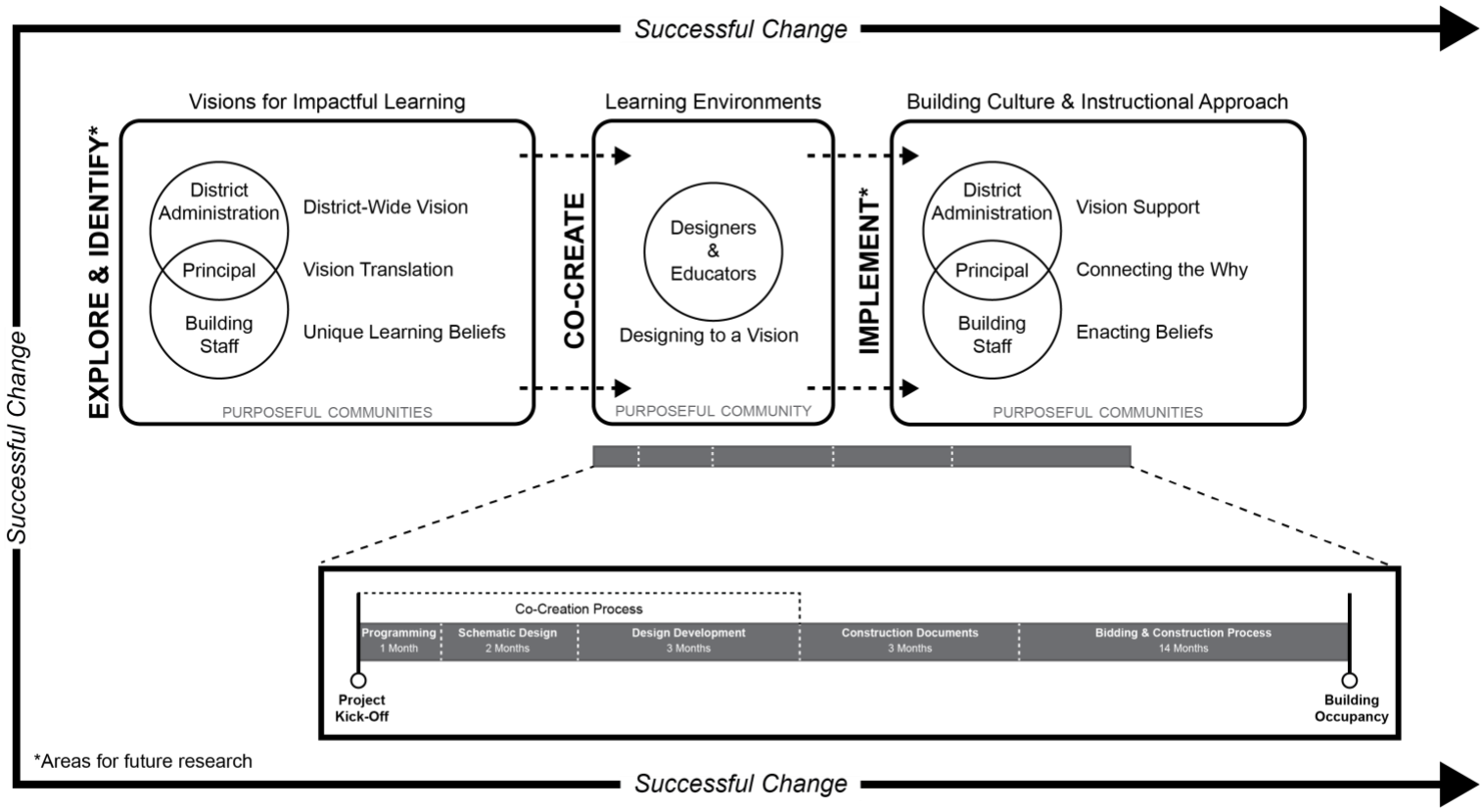
Through a logistical view of the district, facility master plans could be in place to support creating new or heavily renovated learning environments as they work to meet the needs of a growing student population. ***Yet, these facility renovation plans rarely overlap with strategic plans centered on teaching and learning practices to uphold the district's vision, mission, and core values.*** The result is new learning environments designed and built through a co-creation process without the time or space to effectively cross-pollinate with the district's vision for ongoing improvement in teaching and learning. Although this research demonstrated it is possible to implement a visioning process as part of co-creation to foster the development of a purposeful community of building-level educators, it also revealed a consistent lack of time in the visioning and design process to acknowledge and fully develop elements of change.

Finally, as new learning environments are created, the challenging work of change is just beginning. Continued attention and time from school district and building leaders will be needed to translate the established visions into actionable items for teachers across individual buildings. With an intentional effort to make change accepted and embraced at the staff level, teachers in classrooms can be fully supported as they demonstrate a passion for their work and serve the community, all while bringing positive change to the school district. These connected concepts reveal the complexity of the time challenge regarding successful change at a macro level.

To convey the opportunities and challenges resulting from the conflict of the typical timeline of a co-creation process and the ability to support successful change, I am presenting the interconnected ideas in graphic form (see Figure 19) with an explanation of the major components, then will unpack the various elements in detail.

Figure 19

Supporting Successful Change: Before, During, and After Co-Creation



Note. A three-part approach to make successful change through new learning environments that includes a pre phase and post phase to bookend the co-creation process.

This diagram represents a bookend concept to the co-creation of new learning environments broken into three distinct phases. Before co-creation begins, a phase of *1) exploration and identification* should occur. It centers on establishing a multilayered vision for the future while making meaning of change concepts and acknowledging individual readiness. Then, the *2) co-creation of new learning environments* is represented in the middle, and a connection to the typical design and construction process timeline is shown in the callout box below. This co-creation timeline purposefully overlaps the final step of *3) implementation of building culture and instructional approach*. By positioning the co-creation timeline to overlap both co-creation and implementation phases in the diagram above, I am calling attention to the opportunity to begin implementation early, while the design team completes construction documentation and the facility is ultimately constructed. The purposeful communities needed to bring the vision, co-creation and implementation to life are within these three boxes. Finally, successful change wraps the entire process and carries these purposeful communities forward into the future. Asterisks shown on the phases before and after co-creation indicate areas of future research, which is discussed later in this chapter. To unpack this diagram, I begin with the phase needed before co-creation and move across the graphic toward implementation. I will then explain how purposeful communities impact each phase of the process.

Explore and Identify Visions for Impactful Learning

As explained above in the evaluation of the visioning tool, supporting successful change over time means that exploration and understanding of the school's vision for change should be paired with a connection to a district-level vision for learning. Although a vision for Oakwood was explored as part of the co-creation of the new facility as part of this study, the need for more time was evident. In Figure 19, this dedicated time is shown as a precursor to co-creation with

the title of “Explore and Identify Visions for Impactful Learning.” This early work is in the spirit of co-creation; however, instead of focusing on physical space first, it should explore the desired actions, interactions and resulting skillsets of engaging learning experiences as district-level and building-level staff work to implement a vision for future-focused learning. Topics like spatial ownership, visibility, and connectivity, which eventually will influence how a building is designed and used, can be presented and discussed without the pressure of fast-paced design schedules forcing decisions to be made in haste. Instead, the district’s vision for the future can be acknowledged and applied at the building and staff member levels as they recognize individual readiness and the support needed to progress forward. This is the time for building-level staff to shape their own beliefs about learning and to understand how they connect to the district’s vision and values. Additionally, this is the time for district leaders to prioritize areas of evolution and change that might be approached with intensity and other areas of focus that might be approached through small nudges. Finally, this is also the time to understand when buildings and individuals will need professional development and support that can be put into motion before the occupancy of any facilities and to continue beyond move-in, creating a dramatic bookend approach to co-creating new learning environments.

The Co-Creation of New Learning Environments

The concept of co-creation guided this study as a theoretical framework and represented the design process that AMH facilitated. This concept of collective creativity leverages a constructionist mindset to identify solutions together in a social-based process (Holmlid et al., 2015; Jung-Joo et al., 2018; Sanders & Stappers, 2008; Woolner, 2011). The first two phases of the co-creation process to design the new Oakwood MS — programming and schematic design — bounded this research’s case and data-collection process. The entire design process is

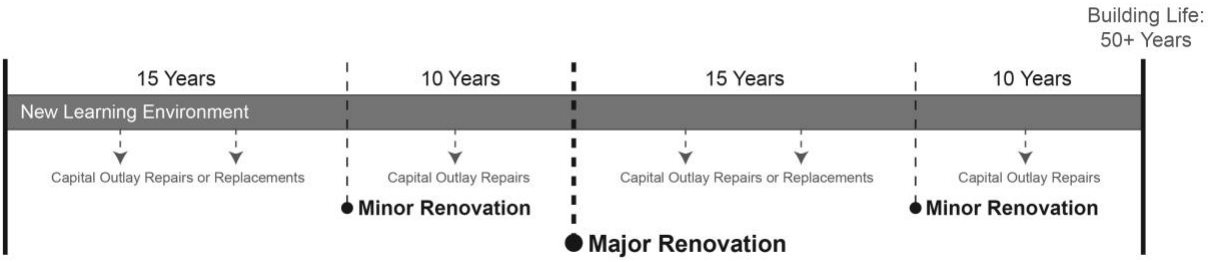
explained in detail in Chapter 3, but these two initial phases provided the opportunity to center the research on the learning concepts and student experiences that the new middle school would be designed to support. As discussed in Chapter 4, the AMH designers found that teachers on the co-creation team struggled to navigate conversations about facility design concepts that challenged their current view of spatial ownership and would ultimately put the teachers in a position to change. Concepts of first- and second-order change suddenly became present in the co-creation process while exploring research Question No. 1. Presented by Bartunek and Moch (1987) and discussed within educational leadership by Goodwin et al. (2016), first-order change is made within existing paradigms, while second-order change conflicts with previous values. For one teacher, these new concepts of spatial ownership the AMH team presented were seen as first-order change. She saw these ideas for new spaces simply as a shift in her current facilitation location that would provide additional tools. For the remaining teachers on the co-creation team, the concepts of spatial ownership, flexibility and parity were in the realm of second-order change. These teachers' existing mindsets and values were being challenged as they worked to process how their identity as a professional and their style of learning facilitation would need to evolve if their space changed beyond their current realities. This is a strong example of the variation in individual readiness that each person in the change process will experience. Yet, this challenge of supporting individual readiness directly conflicts with the lifespan of school buildings implemented through a co-creation process.

This research demonstrated that the most comfortable approach to making a change with a variety of individuals is to recognize their unique readiness and, as necessary, provide small nudges to support incremental steps toward the vision that has been cast. Unfortunately, this can directly conflict with a design process that creates a facility to support the district for 50 years or

more, having only a few chances for renovations or additions during its lifespan. As shown in Figure 20, a typical lifespan of a building can exceed 50 years. Recognizing that new facility construction is a significant financial investment for school districts, these new buildings might not have substantial funding allocated for renovations for the first 15 years. Instead, they might need to rely only on capital outlay funds to make minor repairs. After 15 years, the carpet will be worn, the paint will be scuffed and the colors will be outdated, and there will be a list of minor modifications that have stacked up over time. For example, a small classroom might need a large opening created to connect adjacent space to support a growing population, or aging playground equipment might need to be replaced. Funding is typically allocated through bond issues or within annual budgets to fund minor renovations across the facility. Yet, significant dollars cannot be spent until the building has reached its half-life. After 25 years, the mechanical systems might not be functioning at their highest capacity, and significant changes to the building layout and functionality due to the shift in educational approach over such an extensive timeframe might be needed.

Figure 20

Building Lifespan vs. Opportunities for Significant Change



Note: A conceptual diagram showing a typical building lifespan with moments of minor and substantial renovations and repairs.

Herein lies the challenge with the co-creation process supporting change. If buildings are designed to support the small nudges for which staff might be ready in the near future, the

chance to make significant modifications might not come again for more than a decade. The building becomes the equivalent of clothes that are a size too small for a child. Technically, they still might fit, but they don't comfortably allow for flexibility and creativity. Therefore, as explained in the previous section on exploring and identifying visions for impactful learning, there is a need to prepare more thoroughly for change before co-creation begins. Fullan (2007) explains that a full change process, from initiation to embedding actions as part of new routine, can take from two to four years for a moderately complex change or five to 10 years for a large-scale effort. He reinforces that, "Change is a process, not an event," (p. 57) which supports the need to consider change as a bookend to the co-creation process. The exploration phase provides the time to confirm a district's vision of education and its translation in how facilities will support this mindset, along with processing loss, identifying the support systems that will need to be in place, and bringing teacher leaders into the process in a meaningful way. Then, as co-creation begins, so does a participatory approach to acknowledging the *why* behind the vision, where teachers are supported in their understanding and encouraged to reach beyond their current comfort zone when they provide opinions and direction on facility creation.

Although the magnitude of the change ahead will vary with each individual, seeing successful results lies in two key areas: 1) establishing meaning and 2) understanding and embracing the process. Shady Bend district leaders emphasized the importance of focusing on the *why* during change conversations, even suggesting that tangible benefits of change should be demonstrated to help teachers embrace the shift for the sake of their students. Existing literature about how to approach making meaning of change and the process it takes to bring change to fruition supports this focus (Chenoweth & Everhart, 2013; Fullan, 2007; Lambert, 1998). Consideration of how to connect visions for learning with the tangible outcomes of co-creating

learning environments to act as a catalyst for change is covered in an upcoming section on implications for practice. As educators make difficult decisions to move forward with concepts that will spur first- and second-order change amongst teachers, any potential loss must be acknowledged and processed, even during the co-creation experience.

No matter what degree of change is experienced, an aspect of loss will occur. Marris (1974) speaks at length about the need for a bereavement process to occur, allowing for the mourning of loss before implementing an initial change. Unfortunately, because of a lack of time in the process, loss was only lightly acknowledged in this study as one of the focus group discussion questions posed to the teachers. Loss is undoubtedly an element worth exploring in future co-creation efforts to help educators process how their routines and understandings might change with shifting to a new space. With time made before co-creation to explore and identify multilayered visions for impactful learning, leaders and teachers can enter the co-creation process with an understand of the vision they hope to implement and the support it will take to achieve that vision.

Implementation: Supporting a Building-Level Culture and Instructional Approach

The demanding work of change arrives when implementing the vision set through reflecting on beliefs and forming an aspirational view of the future. This research on change through co-creation has revealed that developing and understanding a vision for learning should not stop at designing new learning environments, but should instead push on, becoming a continuous layer of learning and leading in the new space. In this case study, existing Oakwood MS teachers will move to the new facility and be joined by new team members. The learning belief statements can support creating a new purposeful community as the staff re-forms into a new building culture as part of the move and beyond. The time needed before co-creation was an

essential element emphasized in an earlier section. Still, it should be noted that the time following co-creation is equally critical to ensure the vision lives on.

District leaders will play a role in providing the support systems to the building principal and teachers who will put visions into action. As learning belief statements and the connection to a district vision are completed in the exploration and identification phase before co-creation, those elements will influence the design of the new learning environment. The implementation phase can begin after the co-creation process is complete, but before students and staff occupy the new building. The typical design sequence explained in Chapter 3 can create fuzzy memories of decisions made when school leaders and teachers finished their co-creation responsibilities. As they spend more than a year teaching in their existing learning environment life seemingly goes back to normal. Instead of waiting until the new learning environment is complete to begin to shift mindsets on how space will be used to support learning, a creative approach can be taken to start that process in existing facilities. This experimentation could help smooth the transition when the new building opens and help leaders keep the vision alive for years to come.

Spatial ownership is an example from the findings of this study of a connection between research Questions No. 1 and No. 2. As teachers wrestled with the change it would take to give up completely owning a classroom, it demonstrated that change is complex. When the going gets tough and the time to decide is condensed as part of the design process, it is common to make decisions that revert to a current comfort zone. For a contrasting example, if the Oakwood MS team had proceeded with a building concept that challenged the status quo of spatial ownership, they could have begun the process to support individual readiness and shift mindsets during the 17 months the new facility would be documented and constructed. To become comfortable with operating under this new concept ahead of time, building and teacher leaders could consider

shifting existing furniture to create differentiated spaces for learning across their current building. Teachers interested in experimenting with a more nomadic approach and a willingness to take risks in their teaching journey could be identified, and building leaders could then work alongside them to identify the support systems needed to make a smooth transition in the new building for the entire staff. These risk-tolerant teachers might experience a spatial ownership shift as first-order change. As these teachers demonstrate vulnerability and a willingness to share their successes and setbacks, it could be an excellent example of the influence of teacher leadership across a building, as described below.

The principal certainly plays an important leadership role within the school building; however, the work does not rely on this role alone. Shared leadership is critical, and by identifying others in the organization to actively participate, a ripple effect of ownership and action can be generated. The principal can take the role of "lead learner," creating a culture where they are learning alongside the teachers they lead (Fullan, 2007; Goodwin et al., 2016; Lambert, 1998). In this study, the school principal Sam was comfortable learning alongside his staff as he acknowledged his excitement for where the process might take them. Therefore, he led part of the visioning session and participated in the session alongside his peers. As the principal becomes the "lead learner," teacher leadership is given the space to flourish. Defined by York-Barr and Duke (2004), teacher leadership is "the process by which teachers, individually or collectively, influence their colleagues, principals, and other members of school communities to improve teaching and learning practices with the aim of increased student learning and achievement" (p. 287). Teachers willing to experiment with concepts of spatial ownership before the move to the new building can become the leaders of change. As they consider the organization's overall improvement, these teachers demonstrate they are responsible

for their growth and the growth of others (Ankrum, 2016). In general, teacher leaders are a vital part of what I envision in the implementation phase outlined in the graphic.

Once the facility construction is complete and the students and staff occupy the new building, the purposeful community and culture will evolve and re-form with new teachers who join the team. Although prior staff crafted the existing learning belief statements, there is an opportunity to bring new teachers into the building culture through exploration of their own learning beliefs and connecting to those already in place. After reflecting on their own beliefs when they join the team, they can work with their principal and instructional coaches to discuss how their individual beliefs align with or challenge the existing building vision. This reflection and discussion work allows the new team members to form and maintain a purposeful community. By pairing this with the practice of revisiting beliefs and visions for learning each new school year, the opportunity for individual buy-in and support can be elevated.

Building leaders and staff should revisit learning belief statements during professional learning days at the start of each school year. Working in small groups and then coming together as a whole staff to share and discuss, the principal can pose questions to the teaching staff, such as Where was significant work done last year to uphold their beliefs and implement a vision? How have they changed as educators? How have they seen students change? Where would they emphasize growth during the upcoming year? How will they measure their success in moving toward a vision?

As they work throughout the year as a whole staff and in grade-level teams or professional learning communities, this annual effort shifts from a reflective practice on current beliefs to a visionary approach that becomes a call to action for the entire purposeful community. It is essential, however, to note that the staff dynamic could shift each year as new team

members are brought on and others leave the organization, which requires an effort to continuously revisit culture. Without a mindset of constant evolution, the existing culture will rely only on those who were involved in the initial vision and resulting building culture. Therefore, the concept of purposeful communities should be continuously evolving and cannot live at the building level alone. A final element of the comprehensive diagram (see Figure 19) is the overlay of purposeful communities before, during and after co-creation.

Purposeful Communities Before, During, and After Co-Creation

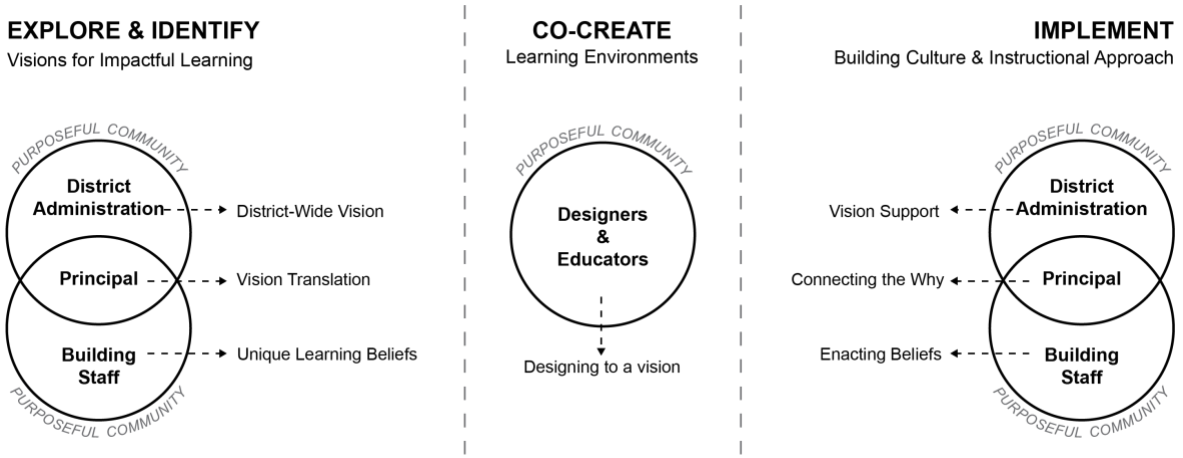
Purposeful communities are a significant component of *Balanced Leadership* change theory that impacted the design and analysis of this research. Goodwin et al. (2016) share that although the building principal might work to form and foster a purposeful community within a school building, everyone in the organization contributes to its success. Teachers with unique viewpoints bring their ideas forward with a mindset of curiosity and collaboration focused on the positive outcomes of students and the community. This is similar to the concept of co-creation, where joint knowledge is formed from sharing and discussing individual ideas. Purposeful communities can occur only in a psychologically safe environment that encourages individuals to share their beliefs, values, and assumptions openly with their peers. The concept of purposeful communities also can be aligned with concepts of building leadership teams (BLTs), school improvement teams (SIT), professional learning communities (PLCs), and other leadership infrastructures.

Although the *Balanced Leadership* framework is focused on the work of the building principal and teaching staff, the concept can be applied to other areas of expertise where joint knowledge formation and the pursuit of shared understanding can be seen. A representation of the purposeful communities that should be fostered before, during, and after the co-creation

process and their perspectives on change are represented in Figure 21. Each purposeful community that should be formed and fostered to support successful change is illustrated in the figure above within a circle.

Figure 21

Purposeful Communities to Support Co-Creation and Bookended Phases



Note: A diagram representing the formation of purposeful communities before, during , and after the co-creation process and their perspectives on change.

Starting with the first phase of exploration and identification of visions for impactful learning, purposeful communities of district administrators should bring the building principal into their district-wide visioning efforts. Then, they can form a purposeful community together and ensure the principal feels empowered to support the translation to building staff. The principal becomes the messenger, translator, and supporter who connects district ideas and visions at the building level. The principal then forms a purposeful community with the building staff, focused on the unique learning beliefs of everyone in the building.

During co-creation, purposeful communities blend groups of educators and designers as they work to craft a design that upholds the multilayered visions that have been explored and

identified. The educator group in this circle should include district leadership and the building principal, who will steer the group back to the district and building visions for learning during co-creation. As new ways of thinking are explored through design, they can identify clear opportunities for support and professional learning. Teachers also should be included in this educator group to make daily connections to the experiences of staff and students who will occupy the new facility. These educators form a purposeful community with designers through the co-creation process. In the case of this research, the learning belief statements were a component of that purposeful community meant to establish a purpose and outcomes that mattered to all.

The purposeful communities at the district and staff level should continue beyond co-creation with a shift to implementation of the vision through the building culture and instructional approach. First, district leaders support the vision as they form a community with the principal to understand the systems of support needed to propel the unique building staff. Then, the principal works to connect to the *why* as they form a purposeful community with building staff who will focus on enacting those beliefs in their classrooms every day. With this macro to micro approach in mind, many individuals are involved in making change within school districts. As groups evolve, purposeful communities will need to form and reform.

Additional Implications for Practice: Suggestions for Executing the Visioning Tool and Co-Creation Process

The outcome of this study brings considerations for both designers and educators working to implement new learning environments that support organizational change. The information below is intended to summarize the research experience and bring forward tangible applications for those working to make change in educational learning environments.

Connecting Designers and Educators: Discussing a Permission to Push

As future-focused visions for learning are explored and embedded within the co-creation process to support staff and students for both the short and long-term, there will be natural moments of hesitancy by those involved and a potential desire to revert to what is comfortable. As the research process unfolded, it was evident that although the AMH design team had the Shady Bend vision and Oakwood MS learning beliefs available during co-creation, it was challenging to bring these concepts back to the forefront of conversation at times. There was a struggle to know when to let ideas met with hesitancy pass and how to challenge those involved to uphold their own beliefs respectfully. This struggle highlights consideration for the various relationships involved, including those that previously existed and newly formed relationships during co-creation.

In this research, two distinct organizations, AMH and the Shady Bend School District came together for a new middle school design process. Within Shady Bend, the new Oakwood MS staff were a distinct subset of individuals with unique perspectives. Each organization has its own embedded culture and structure, and through collective experiences, new relationships are formed and tested. These relationships are not strictly formal or hierarchical, with one organization formally imparting its existing structure and beliefs on the other, but instead become an informal mesh of individuals and ideas. Thus, the two organizations and multiple groups participating in this example of co-creation can be viewed as loosely coupled systems - separate entities that are responsive to each other through their shared variables yet continue to stand alone as individual organizations and groups (Glassman, 1973; Weick, 1976).

Weick (1976) argues that educational organizations are generally loosely coupled systems because they lack common coupling mechanisms of a distinct technical core and a

formal authority of office. Although a typical school district will have formal titles and roles of leadership at various levels, concepts of shared teacher leadership like those promoted by Lambert (1998) advocate for broadening the concept of leadership beyond the role of a singular individual who may hold a leadership title. Similar consideration can be given to AMH, where the concept of co-creation works to foster a solution driven by the greater good as opposed to a singular person with a defined leadership title. Additionally, the malleability of the co-creation process itself demonstrates a lack of a distinct technical core to the design approach of AMH. Finally, consideration for this study's participating systems and their relationship to one another during co-creation provides a view of the internal and external accountability associated with each, along with their dependent relationships.

This study saw two examples of loosely coupled systems: first between AMH and the Shady Bend School District and second between Shady Bend and the new Oakwood MS staff. These two loosely coupled systems came with distinctive assets and challenges as co-creation occurred. First, the loose coupling between the Shady Bend district and Oakwood MS staff was evident in the school district's desire to implement change at a broader scale, conflicting with the unique leadership and staff culture that maintains some autonomy toward instructional approach at the building level. Although the staff at Oakwood likely appreciate the opportunity to maintain building-level autonomy and participate in the co-creation process, a loose coupling challenge was seen in chapter four's findings regarding resistance to change. A scenario of experiencing both benefits and challenges is not uncommon in loosely coupled systems, as described by Weick (1976). "While loose coupling may foster perseverance, it is not selective in what is perpetuated. Thus, archaic traditions as well we innovative improvisations may be perpetuated" (Weick, 1976, p. 6). This study supports the author's suggestion that benefits and challenges can

co-exist through loosely coupled systems. At the macro level, a new vision for learning was discussed and encouraged. However, at the micro-level, the traditional nature of some of the individual staff members from Oakwood MS on the Co-Creation team resulted in a struggle to embrace new ideas related to learning environments supporting instructional approaches. A critical linkage to be considered in this loosely coupled system is the principal, which is also demonstrated in the concept of a shared role between two purposeful communities in Figure 21. Sam worked to support the district's vision for learning but struggled with shifting the willingness of his staff to implement the new vision through the creation of the new middle school learning environment. In this particular case, Sam's short tenure leading this staff may have been a variable that affected the possibility for solid linkage between the two loosely coupled systems.

The second loosely coupled system seen in this study was between AMH and the Shady Bend school district as the two organizations came together during co-creation. AMH came to the process with a wealth of practice in designing new learning environments, and members of the school district also had experience creating new learning facilities. However, neither organization forced a previous process to guide the co-creation experience. Weick (1976) shares that this loose relationship allows for diversity in response, which supports a wider variety of changes in the environment and experiences than a tightly coupled system would allow. Similar to the principal acting as a linkage between Shady Bend and Oakwood, the client leader from AMH became the link between AMH and Shady Bend. They leveraged past experiences from a lengthy career at AMH while advocating for the client as they worked to shape the co-creation process to a unique version that would foster success. Much like the loose coupling between Shady Bend and Oakwood MS, there were benefits and challenges in the loose coupling of AMH

and Shady Bend. On the positive side, the loose coupling allowed the co-creation process to be adapted to best fit this unique client, project, and timeline while interjecting a research project into the mix in the least disruptive way possible. However, the loose coupling also resulted in a struggle to balance the respect of ideas brought forward during design meetings while upholding the vision created at the start of the project, as discussed below.

AMH, Shady Bend, and Oakwood MS came to the co-creation process with a unique perception of regularity and routine present in their own tightly coupled systems yet formed new systems with a loose dynamic. The individuals who made up those tightly coupled systems formed new connections as they brought their situative perspectives to the experience and shaped new views together. AMH did not seek direct permission to respectfully challenge the district leaders and teachers involved when their comments and actions strayed from their vision. With trust formed during the research process and co-creation efforts, I tried to identify moments of disconnect in design meetings and offline conversations. Frankly, however, I felt it was not my place to be overly direct in challenging the educators because there had not been an open conversation from the start about areas that the district felt needed a high level of accountability. Goodwin et al. (2016) consider this the phase of change called "creating demand," where there is recognition that the status quo is no longer desired. A brighter future lies ahead, even if it comes with discomfort. Building and district leaders who are involved in the process of upholding the vision might embrace these moments of discomfort; yet, they also might be in a similar position as teachers in certain cases, feeling an urge to revert to comfort zones when decisions are complex. With the exploration of the district and building visions occurring before the co-creation of new learning environments, time can be allocated to prioritize and identify those areas of non-negotiables to uphold the vision. From there, an open conversation can take place

between district leaders and designers who are facilitating the co-creation process to ensure trust is in place, which can allow them to know when and how to respectfully challenge ideas when the decisions begin to stray from the vision outlined. This purposeful inclusion of trust-based dialogue and acknowledging the permission to push continues to reinforce concepts of a purposeful community created between designers and educators as the purpose and outcomes that matter to all, which have been agreed upon, are held in the highest regard.

Understanding and Acknowledging Change Processes Through All Roles

This research demonstrates critical elements of change processes that impact every layer of an organization. Yet, a thorough understanding of the process and impact typically occurs at the macro level of leadership. Therefore, leaders in education and design alike should consider building awareness of elements of the change process within various layers of their organizations. The awareness approach to change should be scaled to ensure principals and design project leaders have an in-depth understanding of supporting individual team members while also processing the change for themselves. In addition, educating teachers and design team members on high-level change concepts can build a culture where they can openly discuss challenging moments of change understanding and translation. In other words, it might be of value to help teachers and designers understand the literature about change leadership on the frontend of the process, so they can better comprehend the overall co-creation and implementation process through post-occupancy.

As I reflected on this research, I found that although I was aware of elements of change from an existing literature perspective and was looking to understand educators' perceptions of change processes, I did not fully support that understanding with my design team. As a researcher and practitioner, I implemented the visioning tool alongside the other designers,

similar to a principal as the lead learner. Still, I failed to allow adequate time to talk openly with our design team about how this change was experienced on the design side during the co-creation process. As a team, we plowed through, adjusting our approach as needed to support the co-creation process, but never pausing to talk about what we were missing from typical design processes and allowing that loss to be acknowledged and mourned. Although we did discuss what had changed at the end of critical design milestones through a reflective approach, the team felt overwhelmed and confused during some of the processes to implement this new tool. My failure to enforce these best practices of change is a relevant example of how easy it is to miss priorities when time is limited. If my team had been more informed about some of the considerations of the change process, I cannot help but wonder if they would have helped support the discussions needed to make sense of our experiences together. This suggests that if organizations understand the critical elements of healthy change processes, they can provide an opportunity for more lead learners to emerge in the process to create something extraordinary, while keeping the entire group accountable and comfortable.

Placing the Right Educators in the Room at the Right Time

As co-creation processes to design learning environments occur within school organizations, educators should focus on getting the right people in the room at the right time. District-level leadership is responsible for identifying and implementing the vision for the future; however, it is essential that as the co-creation process begins, district leaders continue their work as flagbearers for this vision. Their roles connect concepts and discussions back to the *why* behind the vision and help make decisions that will serve staff and students now and long enough into the future that the facility can act as a supportive tool in its current state until any significant renovations occur. As a practitioner, I have seen district leaders attend design meetings and

lightly share high-level considerations; yet, they rarely take a firm stance on decisions in the moment. Although it might be out of respect for the opinions of the building educators, this creates a confusing dynamic for the entire team, as it can be unclear who is going to make the final decision. As Noah shared in Chapter 4, it is easy to revert to a comfort zone when making decisions, especially in a limited amount of time. Nevertheless, establishing the priorities of visionary concepts to be supported through space and determining who will make decisions about solutions to uphold that vision is a critical part of co-creating new learning environments to support change.

As current district leaders build a vision for the organization, involving multiple leaders can create buy-in and understanding, and building principals should be comfortable with the district vision with which they are charged to implement within their buildings. During the process to communicate and translate this vision, principals can work with the mindset of forming purposeful communities and supporting building staff to understand their role of being a positive influence on students in their classrooms every day. Then, as co-creation processes are implemented to design new learning environments, district and building leaders should be involved in the selection process of teachers to provide a compilation of views that will uphold the district vision and allow for moments of challenge, discussion and understanding. Ensuring their voices will be respected for the greater good, selection processes can evaluate a teacher's tenure within the building and district; years of teaching experience overall; mindset on flexibility and change; willingness to challenge ideas respectfully in a group; and, finally, their place in the purposeful community of their peers. Balance is vital to ensure the co-creation group is not made up of only like-minded individuals and to allow for engaging and challenging discussions. Still, each person's mindset must be willing to prioritize elements to support a long-

term vision. Their early work can set the stage for a continuation of ideas, as discussed below. Designers should consider crafting a simple rubric for the district and building leaders to use in evaluating interested teachers against the criteria suggested above. As part of the application process, teachers can be asked to share a brief narrative of their opinions about how physical space impacts teaching and learning, as well as for a reflection on how their existing perceptions might be challenged through the co-creation process. This provides a window into each applicant's view of change related to co-creation and can be available to leaders as they complete the rubric. By taking this approach, the building principal can share that although anyone is welcome to apply, there is solid reasoning behind how the participants are selected.

Overcoming Assumed Roles That Focus Solely on Design

The designer working to implement a co-creation process that includes a significant emphasis on learning has a hurdle to overcome from the start, as educators involved in the process likely will expect them only to focus on the architectural elements of space. In this research and my previous experiences as a practitioner, educators generally assume the process of creating a new learning environment will focus on a quick facility layout and heavy consideration of aesthetics. Because the architectural designers facilitated the co-creation process, the educators in this study shared that they were initially confused as to why the visioning process was not directly connected to architecture from the start. However, after the fact, they recognized the potential for the activity to influence the new facility's design, but not be translated to daily teaching and learning efforts had it been introduced as an element of the architectural design process. Their commentary reinforces a desire for teachers to participate in a transparent process and suggests the need to help them see the bigger picture sooner.

To help ease educators past the assumed role of the architectural designer focusing solely on spatial layouts and aesthetics, the design team can work more closely with district administrators to establish a unified front on how the project is approached to support learning and allow the educators to be active participants in the process of exploring visions for learning. This replaces working through the "growing pains" of forming a co-creation team supported by administrators on the periphery that could lead to spending extra time recalibrating educator expectations. In addition, as these two fields come together for the co-creation process, deliberately introducing the four concepts of a purposeful community can support open dialogue and a focus on why learning is at the center of the process. These honest conversations can (a) ensure the co-creation process is clearly understood; (b) explore ideas about how to involve unique resources across the district for support and expertise; (c) build trust and strong relationships to form collective efficacy; and (d) discuss the purpose and outcomes that matter for all through the learning belief statements formed before co-creation.

With district and building visions explored before co-creation begins, designers should consider early incorporation of the learning belief statements as part of example building tours, allowing the belief statements to be discussed through a physical application. This directly connects to study findings in which teachers need to see the tangible outcomes of embarking on a change process and recognize individual readiness, a critical component of successful change. Through this research, I found the learning belief statements and supporting discussion during early co-creation meetings were impactful to the designers because the experience provided a real-life version of what learning looks like from the lens of an educator. Recognizing the need for educators to see a tangible *why* behind the potential change, the tours can support educators far beyond just seeing the aesthetics of a new space. Educators in this study thoroughly enjoyed

touring existing learning facilities and having an opportunity to see beyond their current realities of space. For teachers and administrators, facility tours are the real-life result of co-creation processes as they stand in the designer's shoes, understanding how ideas can become a reality. Providing the opportunity for educators to have conversations with other teachers who currently use the spaces being toured can support open dialogue about the effectiveness of the solution. It also fosters discussion about how teachers might have needed to adjust their previous understanding of how space should support learning as they experienced first- and second-order change through their new environments. Co-creation meetings focused on learning beliefs and the inquiry process along with tours to translate those ideas to space can be used in tandem during co-creation, bringing the realities of each area of expertise into an impactful moment of awareness for the group.

Bridging Fields: Specialized Credentialing for Designers and Educators

Considering this need to better understand how both fields — education and architectural design — are involved in the co-creation process, and the fact that billions of dollars are spent on school renovations every year, this research points to a potential need for specialized professional development and credentialing. Considering the amount of time, effort and resources that go into the overall co-creation process, it would be beneficial to have certificate credentials, or even micro-credentials, to help designers and educators bridge the gap between these two fields. As designers look to specialize, such as I have, or as educators look for credit hours to help them move up the pay scale, there is a need for specialized skills to be embedded into the entire process. For example, consider how many school districts throughout the United States are large enough to have a renovation project occurring annually, or at least every other year. This could warrant school leaders and teacher leaders with specialized roles and skill sets in

that district to help facilitate the repetitive process of visioning and co-creation. As a result, the presence of these skills could assist with the overall issues related to time, because having these individuals trained within a district would allow for conversations to begin earlier in the co-creation process and continue through to building occupancy. Therefore, there is value in exploring how one might build in credentialing programs to prepare teachers and leaders for the co-creation processes.

Suggestions for Future Research

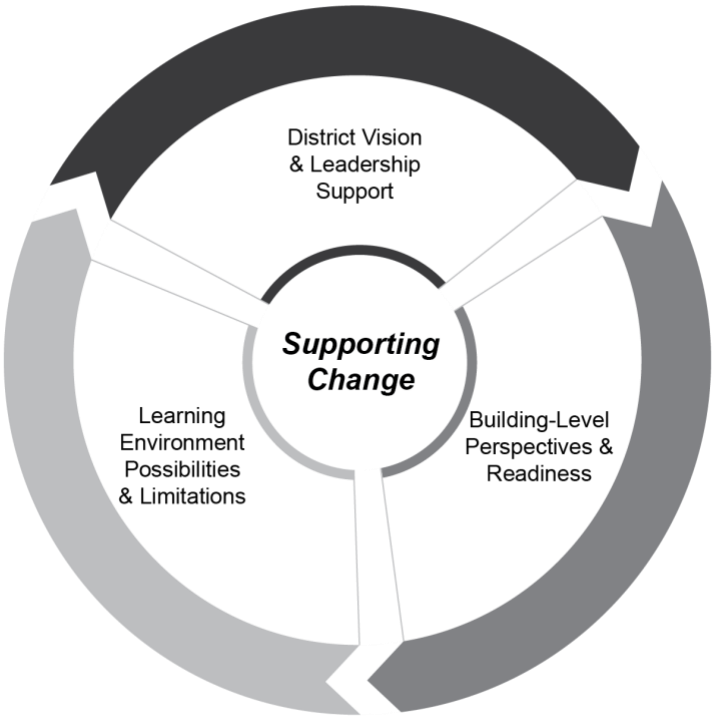
With this research spanning two fields of expertise, there are vast opportunities for future research in education and design. However, in the spirit of this study, the connection of the two is the focus. This could reveal a greater understanding of how change is envisioned and implemented as new learning environments are considered. In addition, building a sense of teachers' views of change, how to successfully develop their awareness of the process, and how to integrate the community into this understanding will help expand the concept of a purposeful community to make impactful change.

Tackling the Time Challenge: Efforts to Explore and Identify

First and foremost, future research should focus on identifying the optimal approach to addressing the challenge of time that currently exists within the co-creation process. This pre-work provides the necessary exploration to either develop a district-wide vision or explore a vision already identified, focusing on the prioritization of instructional approaches now and as evolution occurs in the future to create environments that can support change. Figure 22 shows a three-part model of consideration for work planning prior to the co-creation process.

Figure 22

Three-Part Model to Support Change Before Co-Creation



Note: A graphic model of three considerations to support change before co-creating new learning environments.

This model supports change through a district vision and the willingness of leadership to support the vision's implementation. In addition, it acknowledges the building-level perspectives on vision and the readiness of its staff to approach a change process. Finally, it incorporates the possibilities and limitations that the physical learning environment could provide to foster current supportive environments and future evolution of learning. Future research might reveal the most efficient approach to connecting these necessary components, identifying the time and resources required from school districts looking to enter the co-creation process to successfully design new learning environments.

Building an Awareness of Change

Recognizing that this research focused on leaders' perceptions regarding change processes, exploring the perception of change processes from the individuals at the micro level is worthy of future research efforts. Understanding how design team members and classroom teachers perceive change experiences can help identify and implement supportive structures to foster success. These could include exploring a scaled approach to teach a basic understanding of successful change elements and tracking the perception of individuals as they experience a change. This also opens an intriguing door to understanding how parents and community members perceive changes in educational delivery methods. Often, school districts are cautiously walking a line between taking progressive steps toward achieving a vision for learning that shifts away from industrial models of the past and still garnering the support of parents and community members. These community members might have a more risk-averse mindset on taking novel approaches toward learning with their children. By facilitating future research with parent groups, an understanding could be gained regarding how they receive information about educational experiences relative to their current knowledge of the topic and how districts can build systems of vision implementation that layer in parent and community awareness. As school districts experience change, the effect ripples down to students and all the way home to parents. A complete picture of how the layers of people involved in educational settings perceive change can bring a more cohesive approach to implementing successful steps toward a vision for the future of learning and leading within schools.

Exploring Systems of Support to Implement Change

Throughout Chapter 5, district and building leaders mentioned systems of support. These references were made generally, and future research might reveal the time and resources needed

to teach educators about the process of change and train leaders in the steps necessary to healthily navigate the process. In Figure 19 and discussed in a prior section, the implementation process can overlap the design phases of construction documents and facility construction, keeping the learning belief statements and associated co-creation decisions top of mind. This allows for teacher leadership to propel mindsets of change in the existing facility as they experiment with new concepts to leverage existing space and tools. Because this essentially creates a chicken-and-egg scenario, further research could be considered regarding teachers' perceptions of on this approach. Teachers might ask themselves, "Can I change before I have the physical catalyst of a new space to ensure I'm mentally ready to take on the challenge?" Or, perhaps the mindset of teachers and building leaders is that space should naturally evolve teaching and learning practices as educators experiment once the space is complete. Future research could provide an understand of how willing district and building leaders are to support the concept of teacher leadership, beginning the process to experiment with shifted mindsets before the new facility is complete. This research also could explore the time and resources needed to regularly revisit learning beliefs in professional learning communities and staff-wide work sessions.

Post-Occupancy: Identifying the Impact of Decisions on Change

To support the process of building awareness of change across all stakeholder groups in school districts, identifying the impact of decisions on long-term change opportunities is worthy of future research. For example, Figure 20, shown above, presents a general concept of how the typical lifespan of a building has only a few substantial funding opportunities to bring change to the physical environment. By taking a design approach that only supports small nudges of change, there is a risk for the building to be outpaced. Data on the average number of years

between renovations and average funding allocation per building type and size can clarify the concept. This could assist districts and communities in seeing the need for a greater emphasis on flexible, future-focused learning environment design. This research could consider the geographical locations of school districts, district enrollment, and funding allocation across elementary and secondary building levels. Accurate data could also assist school districts as they plan for future bond issues and create long-range facility master plans to support strategic plans for vision implementation.

Finally, researching the impact of decisions made in planning efforts before co-creation through to the occupancy of new learning environments is vital for painting a complete picture of organizational change in school districts. For example, the long-term implementation concepts covered in the discussion section above could be the subject of a qualitative study that follows the district administrators and building staff through their journey to live their learning belief statements in practice and work toward the district's vision. This could reveal how the learning belief statements were utilized as a part of professional learning opportunities and reconsidered at the beginning of future school years. When creating new learning environments and offering critical learning for future designers and educators entering similar processes, this longitudinal research could provide a complete picture of the change process.

Summary

This study successfully confirmed the worth of a belief-based visioning tool as part of the co-creation of a new middle school explored through research Question No. 1. In addition, it identified areas of improvement for future iterations of the visioning tool for educators and opportunities for more effective integration into design processes. As the early design phases of the co-creation process for Oakwood MS were researched, change elements inadvertently

bubbled to the surface. The teachers on the co-creation team struggled with change as new concepts for the physical learning environment challenged their ways of thinking. A more comprehensive view of change processes from district administrators through the exploration of research Question No. 2 complimented those moments of struggle the teachers experienced during the co-creation process. These administrators shared their perceptions of successful change and some of the challenges of making change through the co-creation of new learning environments.

Co-creation as part of successful change processes in school districts is made possible through purposeful communities before and after design. The principal's involvement is a critical connector between the macro and micro scale of visioning and implementation, focused on the *why* and creating understanding with staff. Previously show in Chapter 3, Figure 10 demonstrates that multiple layers of educators should be involved in co-creation, sharing their unique perspectives on how new learning environments should be designed to support the visions in place. Designers facilitating the co-creation process should work to form a purposeful community between these two areas of expertise and with a mindset of curiosity and empathy as trust is built and communication occurs. Finally, the hard work of making change continues through implementation of a building culture and instructional approach that upholds the vision and takes advantage of the physical space created to support both students and staff. Through this three-part approach and with knowledge of the critical elements of the change process, a brighter future for learning can be identified and realized through the diligent work of designers and educators working together.

Implications for practice were presented for consideration from both the designers and the educators. Building trust through the formation of purposeful communities allows for

dialogue about a permission to push when established visions are not considered during co-creation. Designers and educators alike should consider teaching the basics of change processes to their leaders and staff to build awareness of the necessary steps to make successful change when wrestling with complex decisions. As a multi-layered vision for learning is implemented through new facilities, these difficult decisions can be supported by having the right educators involved in co-creation at the right time. Because educators likely are coming into the design process ready to talk about architecture, designers might have a hurdle to overcome when implementing co-creation processes with a heavy emphasis on learning. By encouraging design team members to approach discussions with curiosity and empathy, conversations about learning can shift from being overwhelming because of a lack of educational expertise to offering an exciting view of designing for a unique set of staff and students.

Finally, future research could center on both the pre-phases and post-phases that bookend the co-creation experience, working to better understand the time and resources needed to explore and identify visions for impactful learning and implement a building culture and instructional approach. For example, specific data collection on the typical timing of fund allocation for school buildings in districts of varying sizes could clarify the concept shown in Figure 20 to help educators during co-creation see the potential time impact of their decisions related to first- and second-order change. Further qualitative research could reveal educators' perceptions when navigating the process to enact learning beliefs and when moving into their new space, as well as reveal the systems of support needed to make the change experience one that acknowledges both individual readiness and loss as the group moves with a collective purpose.

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Appendix A - Interview Guide: Post Visioning Experience (Oakwood Staff)

Participants: *Oakwood Principal + 4 certified teachers*

Intro & Consent:

Thank you for joining me today. I appreciate your participation in the research process and willingness to fill out the consent form provided during the visioning session. The goal for today's interview is to better understand your experiences from the recent belief-based visioning exercise. I'm hoping to get honest, raw feedback so don't feel worried about saying the right or wrong thing… there's no wrong answer!

The interview will be approximately 30-60 minutes in length, and I will using Google Meet to record the session for the purpose of transcription. This recording is done to maintain the essence of your words for the research and to aid in data analysis process. The audio file and associated written documents will be stored on a password protected computer and digital files will be deleted after three years. All identifiable information will be removed in any written transcripts to maintain confidentiality for each participant. The data from this interview will be analyzed as part of my dissertation study that has been approved by the Kansas State University Research Compliance Office (Proposal #10316). You may withdraw from this study at any time, with no penalty or repercussions. Findings from this study may be utilized in later publications, however your name or any other identifiable data will never be used. Before we proceed, do you consent that you understand that the information you share will be confidential and also utilized for dissertation research?

1. Please tell me a little bit about yourself and how long you've been in the education field, in this building as a teacher, and overall.
2. Walk me through your thoughts and reflections during the visioning exercise, starting with your personal statement and ending with the vision that was ultimately decided upon.
    a. Tell me about any part of the visioning exercise that you found particularly engaging or frustrating.
    b. In what ways did your vision statements differ from those created by your small group?
    c. In what ways, if any, was your vision statement reflected in the large group statements created?
    d. Tell me about your feelings related to the outcome of the visioning exercise?
        i. Was it what you expected?
3. For the team that is tasked with taking your vision through the design process, what do you believe their role is in carrying your group vision forward?
4. When thinking about the potential to change or improve your school through the design of a new building, in what ways do you see this visioning exercise influencing your schools' culture of learning in the future?
5. How do you see yourself using the learning spaces within the new school compared to the use of space and your instructional approach now?
6. What suggestions would you have to improve the visioning exercise for others that may experience it in the future?

Debriefing Statement:

As we end, please rest assured that your privacy is of the utmost importance and all identifiable information will be removed in any written transcripts to maintain confidentiality. The audio recording from today's session and associated documents will be stored on a password protected computer and deleted after three years. The data will be analyzed as part of my dissertation study as approved by the K-State Research Compliance Office and you may choose to withdraw from the study at any time with no penalty or repercussions. Findings may be utilized in later publications with all identifiable data removed. To maintain the essence of your words and ensure accuracy of the information collected, I will contact you via email to provide the opportunity for you to review preliminary findings. Thank you again for taking the time to join me today.

Appendix B - Interview Guide: Programming and Schematic Design Experience (Oakwood Staff)

Participants: *Oakwood Principal + 4 co-creation team teachers*

Intro & Consent:

Thank you for joining me today. I hope you had a chance to read the informed consent form I sent a few days ago. The form includes basic information about the research purpose, procedures or methods to be used, risks or discomfort anticipated along with anticipated benefits, and a statement of how I will ensure that confidentiality is maintained. It requires a signature from you for us to proceed and I'll be collecting those forms today. The goal for today's interview is to better understand your experiences from the recent programming meetings you participated in as part of the design process for the new middle school. I'm hoping to get honest, raw feedback so don't feel worried about saying the right or wrong thing… there's no wrong answer!

The interview will be approximately 60 minutes in length, and I will be recording the session through Google Meet for the purpose of transcription. This recording is done to maintain the essence of your words for the research and to aid in data analysis process. The audio file and associated written documents will be stored on a password protected computer and digital files will be deleted after three years. All identifiable information will be removed in any written transcripts to maintain confidentiality for each participant. The data from this interview will be analyzed as part of my dissertation study that has been approved by the Kansas State University Research Compliance Office (Proposal #10316). You may withdraw from this study at any time, with no penalty or repercussions. Findings from this study may be utilized in later publications, however your name or any other identifiable data will never be used. Before we proceed, do you

consent that you understand that the information you share will be confidential and also utilized for dissertation research?

1. From your perspective as an educator, talk to me a little bit about how you see physical space playing a role in the teaching and learning experience?
2. To this point, we've done a lot of talking and we're now to the point of reviewing conceptual diagrams and plans. For example, we started with our staff visioning exercise and for our first meeting as a committee, we dug deep to explore how those beliefs support your actions as educators each day. As we shifted from the learning belief statements, we moved in the process of programming. The next two meetings were an exploration of some big topics like classroom ownership, neighborhood to exploratory connections, public building use etc. In those discussions you saw some example images and a few diagrams, but it was still largely discussion based. I'm curious, how was the experience of dialoging about your ideas as opposed to being shown plans or building solutions and being asked for a reaction?
    a. How did you feel like those conversations were going to impact the way space was created?
    b. Did you feel empowered to ask questions and challenge our way of thinking?
3. How did starting the process with the discussions on your belief statements impact your ability to connect with the design team members during conversations about how you'll use space?
    a. Did you feel that the design team was knowledgeable about some of the instructional topics you brought forward?

4. In what ways do you hope the ideas you shared through the learning belief statement process might be incorporated into the rest of the design and construction experience?
5. Have we reached any moments of discussion where you felt stretched past your current level of comfort on how you anticipated creating this new building? If so, could you talk a little bit about that area of discomfort and how it is related to you as an individual or the greater teacher group at Oakwood?
6. As the building is taking shape, do you feel the new design will change the way the Oakwood staff forms a culture of teacher support?

1. How do you see yourself using the learning spaces within the new school compared to the use of space and your instructional approach now?
2. What advice would you have for the design staff to better connect with educators in future co-creation efforts?

Debriefing Statement:

As we end, please rest assured that your privacy is of the utmost importance and all identifiable information will be removed in any written transcripts to maintain confidentiality. The audio recording from today's session and associated documents will be stored on a password protected computer and deleted after three years. The data will be analyzed as part of my dissertation study as approved by the K-State Research Compliance Office and you may choose to withdraw from the study at any time with no penalty or repercussions. Findings may be utilized in later publications with all identifiable data removed. To maintain the essence of your words and ensure accuracy of the information collected, I will contact you via email to provide

the opportunity for you to review preliminary findings. Thank you again for taking the time to join me today.

Appendix C - Interview Guide: Programming and Schematic Design Experience (AMH)

Participants: *4 AMH Design Team Members*

Intro & Consent:

Thank you for joining me today. I hope you had a chance to read the informed consent form I sent a few days ago. The form includes basic information about the research purpose, procedures or methods to be used, risks or discomfort anticipated along with anticipated benefits, and a statement of how I will ensure that confidentiality is maintained. It requires a signature from you for us to proceed and I'll be collecting those forms today. The goal for today's interview is to better understand your experiences from the recent programming meetings you participated in as part of the design process for the new middle school. I'm hoping to get honest, raw feedback so don't feel worried about saying the right or wrong thing… there's no wrong answer!

The interview will be approximately 60 minutes in length, and I will be recording the session through Google Meet for the purpose of transcription. This recording is done to maintain the essence of your words for the research and to aid in data analysis process. The audio file and associated written documents will be stored on a password protected computer and digital files will be deleted after three years. All identifiable information will be removed in any written transcripts to maintain confidentiality for each participant. The data from this interview will be analyzed as part of my dissertation study that has been approved by the Kansas State University Research Compliance Office (Proposal #10316). You may withdraw from this study at any time, with no penalty or repercussions. Findings from this study may be utilized in later publications, however your name or any other identifiable data will never be used. Before we proceed, do you

consent that you understand that the information you share will be confidential and also utilized for dissertation research?

1. Can you give me your quick background in how many years in design and how many years focused on learning environments?
2. In your opinion, how does physical space play a role in the learning experience?

3. According to Goodwin, Cameron and Hein, the four characteristics of developing a purposeful community are *(present them with a handout clearly listing these these):*
    a. A strong sense of moral purpose and high expectations (purpose and outcomes that matter to all)
    b. A shared commitment to consistency (agreed upon processes)
    c. Focusing resources on what matters most and building on strengths (use of all available assets)
    d. A prevailing sense of optimism and a can-do attitude (collective efficacy)

    When it comes to creating a purposeful community with your fellow designers, how would you rank these from your top must-have to your lowest concern and why?
4. What about when it comes to pulling off a successful project with a mindset of co-creation as you work with your client?
5. We changed a bit about the first part of the typical H+M design process experience with this project. Talk to me about what happened and how that felt.
6. In your experience, where do you feel the programming conversations always run smoothly or maybe not so much?

7. In what ways did the learning belief-statements impact the way you connected with the core MS design team?
8. Walk me through an experience during the co-creation process where the learning belief statements influenced programming conversations? Tell me about a time where it may have been overlooked or ignored.
9. Looking back to the design process, walk me through your most memorable moments with the client, good or bad. What about with the team?
10. If you went back and rewound this project from the start, what would you preserve and what would you change?
11. What suggestions might you have for better communication between designers and educators during the design process?
12. What suggestions might you have for better communication between designers and other designers during the design process?

13. What are you hoping to take away from this experience? (This can be a good or bad revelation!)

Debriefing Statement:

As we end, please rest assured that your privacy is of the utmost importance and all identifiable information will be removed in any written transcripts to maintain confidentiality. The audio recording from today's session and associated documents will be stored on a password protected computer and deleted after three years. The data will be analyzed as part of my dissertation study as approved by the K-State Research Compliance Office and you may choose

to withdraw from the study at any time with no penalty or repercussions. Findings may be utilized in later publications with all identifiable data removed. To maintain the essence of your words and ensure accuracy of the information collected, I will contact you via email to provide the opportunity for you to review preliminary findings. Thank you again for taking the time to join me today.

Appendix D - Interview Guide: Organizational Change (Shady Bend School District)

Participants: *5 Shady Bend Administrative Team Members*

Intro & Consent:

Thank you for joining me today. I hope you had a chance to read the informed consent form I sent a few days ago. The form includes basic information about the research purpose, procedures or methods to be used, risks or discomfort anticipated along with anticipated benefits, and a statement of how I will ensure that confidentiality is maintained. It requires a signature from you for us to proceed and I'll be collecting those forms today. The goal for today's interview is to better understand your perceptions of the creation of new learning environments as an opportunity to impact organizational change. I'm hoping to get honest, raw feedback so don't feel worried about saying the right or wrong thing… there's no wrong answer!

The interview will be approximately 60 minutes in length, and I will using Google Meet to record the session for the purpose of transcription. This recording is done to maintain the essence of your words for the research and to aid in data analysis process. The audio file and associated written documents will be stored on a password protected computer and digital files will be deleted after three years. All identifiable information will be removed in any written transcripts to maintain confidentiality for each participant. The data from this interview will be analyzed as part of my dissertation study that has been approved by the Kansas State University Research Compliance Office (Proposal #10316). You may withdraw from this study at any time, with no penalty or repercussions. Findings from this study may be utilized in later publications, however your name or any other identifiable data will never be used. Before we proceed, do you consent

that you understand that the information you share will be confidential and also utilized for dissertation research?

1. Please tell me a little bit about yourself and how long you've been in the education field, both here at the district and overall.
2. In what ways are the concepts of school improvement and organizational change embedded into the culture or infrastructure of your school district?
3. When leaders are involved in a school construction, design, or renovation project, tell me about the opportunities you see for school improvement and leading change while engaging in that process?
4. According to Goodwin, Cameron and Hein, the four characteristics of developing a purposeful community are *(present them with a handout clearly listing these these):*
    - A strong sense of moral purpose and high expectations (purpose and outcomes that matter to all)
    - A shared commitment to consistency (agreed upon processes)
    - Focusing resources on what matters most and building on strengths (use of all available assets)
    - A prevailing sense of optimism and a can-do attitude (collective efficacy)

    Generally speaking, which of these characteristics for developing a purposeful community strike you as most relevant to leading change through the school design and construction process? Tell me about why you feel that way.

5. When thinking about collaboration with designers from an architecture firm, which of these characteristics for developing a purposeful community strike you as most relevant to leading change through the school design and construction process? Explain.
6. When thinking about working with teachers to help them reimagine how the use of space can be used to improve teaching and learning environments, which of the characteristics strike you as most relevant to leading change through the school design and construction process? Explain.
7. When thinking about the entire school construction process from collaborative design to the first year of school in a new building, walk me through an ideal change process from beginning to end.

Debriefing Statement:

As we end, please rest assured that your privacy is of the utmost importance and all identifiable information will be removed in any written transcripts to maintain confidentiality. The audio recording from today's session and associated documents will be stored on a password protected computer and deleted after three years. The data will be analyzed as part of my dissertation study as approved by the K-State Research Compliance Office and you may choose to withdraw from the study at any time with no penalty or repercussions. Findings may be utilized in later publications with all identifiable data removed. To maintain the essence of your words and ensure accuracy of the information collected, I will contact you via email to provide the opportunity for you to review preliminary findings. Thank you again for taking the time to join me today.

Appendix E - Focus Group Guide: Post-Schematic Design Reflections (Oakwood)

Participants: *Co-Creation team members from Oakwood MS*

Intro & Consent:

Thank you for joining me today. I appreciate your contribution to the research process to date and your willingness to complete the consent form. The goal for today's focus group discussion is to better understand your experiences from the last 12 weeks of the design process of the new middle school. I'm hoping to use the collective power of the group to explore ideas together so please feel free to be open and honest… there's no wrong answer! I have questions prepared for our discussion, but I'd love for your conversation to be fluid and open amongst all of you.

Since our meeting ran long prior to this discussion, we are left with about 30 minutes for our discussion today. I will be recording the session through Google Meet for the purpose of observation and transcription. This recording is done to maintain the essence of your words for the research and to aid in data analysis process. The audio and video files and associated written documents will be stored on a password protected computer and digital files will be deleted after three years. All identifiable information will be removed in any written transcripts to maintain confidentiality for each participant. The data from this interview will be analyzed as part of my dissertation study that has been approved by the Kansas State University Research Compliance Office (Proposal #10316). You may withdraw from this study at any time, with no penalty or repercussions. Findings from this study may be utilized in later publications, however your name or any other identifiable data will never be used.Before we proceed, do you consent that you

understand that the information you share will be confidential and also utilized for dissertation research?

1. When we began the process to design the new middle school and presented the idea of co-creation, tell me about your expectations of the process?
    a. How did those perceptions compare to the process you experienced?
2. In what ways do you think your fellow teachers (who were not on the design team) voices have been heard to this point in the design process? How do you hope to ensure their voices are heard moving forward?
3. What are you most looking forward to when the new building opens in 2023? Any particular space you're really excited about? Why?
4. What areas of the current plan are you feeling concerned about, either with regard to current development relative to other areas of the building, or their eventual use?
5. Is there anything about your current life at Oakwood that you're worried about losing or giving up when you transition to the new building?
6. In 12 weeks or so our regular connections will back off and the design team will go off and draw like mad men and women and get this thing ready for bidding and construction. That means there will be a 16-month gap from all these conversations and decisions until you walk in that door of the new school. Let's talk a bit about that.
    a. Do you see any opportunities or challenges for you all as a Oakwood/Shady Bend Group with regard to that significant chunk of time and how you prepare to shift to the new space?

b. How do you think the visioning exercise done at the beginning of this process will influence how you and your peers approach teaching and learning as you transition to your new building in 2023?

Debriefing Statement:

As we end, please rest assured that your privacy is of the utmost importance and all identifiable information will be removed in any written transcripts to maintain confidentiality. The recordings from today's session and associated documents will be stored on a password protected computer and deleted after three years. The data will be analyzed as part of my dissertation study as approved by the K-State Research Compliance Office and you may choose to withdraw from the study at any time with no penalty or repercussions. Findings may be utilized in later publications with all identifiable data removed. To maintain the essence of your words and ensure accuracy of the information collected, I will contact you via email to provide the opportunity for you to review preliminary findings. Thank you again for taking the time to join me today.

Appendix F - Focus Group Guide: Post-Schematic Design Reflections (AMH)

Participants: *AMH Team Members*

Intro & Consent:

Thank you for joining me today. I appreciate your contribution to the research process to date and your willingness to complete the consent form. The goal for today's focus group discussion is to better understand your experiences from the last 12 weeks of the design process of the new middle school. I'm hoping to use the collective power of the group to explore ideas together so please feel free to be open and honest… there's no wrong answer! I have questions prepared for our discussion, but I'd love for your conversation to be fluid and open amongst all of you.

We have 60 minutes for our discussion today and I will be recording the session through Google Meet for the purpose of observation and transcription. This recording is done to maintain the essence of your words for the research and to aid in data analysis process. The audio and video files and associated written documents will be stored on a password protected computer and digital files will be deleted after three years. All identifiable information will be removed in any written transcripts to maintain confidentiality for each participant. The data from this interview will be analyzed as part of my dissertation study that has been approved by the Kansas State University Research Compliance Office (Proposal #10316). You may withdraw from this study at any time, with no penalty or repercussions. Findings from this study may be utilized in later publications, however your name or any other identifiable data will never be used. Before

we proceed, do you consent that you understand that the information you share will be confidential and also utilized for dissertation research?

1. We all entered this process together knowing we would be evolving our process and trying new things. I'm curious what you all came to that experience expecting and what has surprised you along the way?
2. How have the 75-minute, sometimes 90-minutes co-creation meetings with the Oakwood/Shady Bend team members impacted the process?
3. We've extracted information in new ways during this process, including the learning-belief statements. How has that shifted the way you think about the order and speed with which information needs to come in during future projects?
4. As we've leveraged the learning-belief statements how have you seen it impact (positively or negatively) our group of educators to build cohesion in understanding the design path and evolved solutions during these early phases of design?
5. As we interject new spaces for learning that the educators don't currently have at Oakwood, how important do you think it is to have each member of the team fully comfortable with that direction at this point in the process?
6. What feelings and experiences have the learning belief statements brought to you as a group of designers working together outside of the co-creation meetings?
7. What are you curious, concerned or excited about as we look to shift from schematic design into design development for the new Oakwood MS?
8. What do you, as a designer, hope to take away from the remainder of the process, or perhaps what have you already taken away from the process to date?

Debriefing Statement:

As we end, please rest assured that your privacy is of the utmost importance and all identifiable information will be removed in any written transcripts to maintain confidentiality. The recordings from today's session and associated documents will be stored on a password protected computer and deleted after three years. The data will be analyzed as part of my dissertation study as approved by the K-State Research Compliance Office and you may choose to withdraw from the study at any time with no penalty or repercussions. Findings may be utilized in later publications with all identifiable data removed. To maintain the essence of your words and ensure accuracy of the information collected, I will contact you via email to provide the opportunity for you to review preliminary findings. Thank you again for taking the time to join me today.

Appendix G - Draft Visioning Work Session Outline

The following steps may be implemented during the full certified staff visioning session.

1. Intro and consent for the research process
2. Introduction to the activity and defining belief-based visioning statements
    a. An explanation of the purpose of the activity will be shared with participants and how their work will act as a guide for the key stakeholder design team as the new middle school is created.
    b. **Learning Belief Statements** are an outward expression of the empowering ideas and driving forces behind the educational experience. They are overarching themes that create the foundation of our approach and propels us forward. Simply put, it's the WHY behind what we do. It's a reminder of who we want to be on our journey, not just that we want to get to the finish line.
3. Reflecting on impactful learning experiences
    a. Participants will be provided with worksheets to individually complete relative to the following prompts:
        i. Reflect on a rich learning experience you've facilitated or observed in the past. What were the students involved in? How were they acting? What was the feeling in the room? Write down 8 adjectives below that come to mind. They don't need to be a full collection of thoughts, just the first 8 that come to mind.
        ii. Reflect back on your list and consider if they are relative to a particular content topic or age of learners. Would your list change if you chose a different lens of learning? (For example, if you wrote down words to describe a rich learning experience as part of a math lesson for 4th graders, would those words look different if you were describing something centered around language arts?) Indicate the alternative topic in the space provided.
        iii. Consider the first two scenarios, but with the lens of how you felt as an administrator or facilitator? Write down 8 adjectives to describe these same two scenarios.

iv. Reflection: are there any similarities? What are the overarching ideas between the student and staff experience?

v. Using the overarching ideas just uncovered, form belief statements that summarize your personal thoughts about the learning experience. Complete three each of the following prompts:

1. I believe learning should be _____ because _____.
2. I believe students should feel _____ because _____.
3. I believe staff should feel _____ because _____.
4. I believe staff should be empowered to _____ because_____.

4. Small Group Work
   a. Participants will break into small groups of four to six members and discuss their individual responses. As a group, they will generate a list of four statements for each prompt above.
5. Large Group Work
   a. Small groups will each present their statements, posting them for the collective audience to see.
   b. The design team facilitator will solicit ideas from the large group of common themes through the statements that have been presented. The principal will then take over as facilitator, helping guide the staff through a discussion to generate a list that represents the certified staff as a whole.
   c. The design team will create a graphic of the agreed upon belief statements and have them available during the first design meeting for the new middle school. At that meeting, the one of the participating teachers of the key stakeholder team will present the collective belief statements to the full team for continued implementation into the new middle school project.
6. Closing and debrief statement for the research process

Appendix H - Final Visioning Work Session Outline

The following steps will be implemented during the full certified staff visioning session.

1. Intro and consent for the research process
2. Introduction to the activity and definition of belief-based visioning statements using the following topics for presentation:
    a. Change can be a difficult process to navigate but it can be supported by a common understanding and opportunity to discuss what will be exciting and what will be difficult as the staff shifts to a new space for learning.
    b. Purpose for the work session is to empower teachers to share their beliefs about exceptional learning experiences and work together to form a full staff understanding of what learning should look and feel like at Oakwood MS.
    c. We'll be creating learning belief statements, which are an outward expression of the empowering ideas and driving forces behind the educational experience. They are overarching themes that create the foundation of our approach and propels us forward. Simply put, it's the WHY behind what we do. It's a reminder of who we want to be on our journey, not just that we want to get to the finish line.
3. Reflecting on impactful learning experiences
    a. Using individual reflection packets, teachers will work independently to reflect and record their feelings.
    b. They will remain in their respective classrooms and will connect with the group virtually.
    c. After 18 minutes, the large group will move on to next steps.

4. Small group collaboration
    a. Participants will be broken into pre-defined small groups of four to six interdisciplinary team members using separate Google Meet rooms.
    b. They will share and discuss their individual responses. As a group, they will generate a list of four statements for each prompt above.
    c. An AMH team member will be a passive participant, answering questions on the process and keeping track of time.
    d. A Google Sheet will be used to record each small group's answers on their respective tab.
    e. After 25 minutes, the small groups will reconvene into the full staff virtual room.
5. Full Staff Sharing and Confirmation of Beliefs
    a. The Oakwood principal will bring the full staff back together for the final 25-minute large group session. Using the Google Sheet tab that collected all small group answers together, he will facilitate a discussion on the commonalities and differences amongst the small group answers.
    b. I will take notes and help keep a record on the full group sheet being shown with the goal of summarizing the full staff beliefs by the end of the session or identifying areas that need to be explored further.
6. Final Learning Belief Statement Documentation
    a. In the first co-creation meeting, the participating teachers will present the collective belief statements to the full team for continued implementation into the new middle school project.

b. After discussing the draft statements in that meeting, the AMH team will create a graphic of the agreed upon belief statements for use by the co-creation team and the Oakwood staff.

Appendix I - Individual Learning Belief Reflection Packet

Name:

EXPLORING LEARNING EXPERIENCES & BELIEFS

What we believe in can be a driving force behind the decisions we make. Stemming from the desire to bring purpose and value to the things that we do and the people we impact, our beliefs are personal to us but are outwardly displayed to the world around us through our interactions and relationships with others. Some wear their beliefs like a badge of honor while others keep them quietly internal but are happy to share when asked. Let's explore your beliefs as you prepare to share those with your colleagues...

01 ENGAGING & INSPIRING LEARNING

Exploring the feelings and actions embedded within the learning experience

Through the eyes of the student, reflect on a rich middle school learning experience you've facilitated or observed. What were the students involved in? How were they acting? What was the vibe of the room?

Write down 6 adjectives below to describe the **STUDENT EXPERIENCE** you envisioned. This doesn't need to be a full collection of thoughts, just the first 6 that come to mind.

1 _____ 4 _____

2 _____ 5 _____

3 _____ 6 _____

REFLECTION: *As you look back at your list, consider if these words are relative to a particular content area. Would your list change if you chose a different lens of learning? Jot down your thoughts below:*

Now consider your first two scenarios, but with the lens of **how YOU felt** as a middle school administrator or facilitator...

Write down 6 adjectives below to describe that experience **FOR YOU.** This doesn't need to be a full collection of thoughts, just the first 6 that come to mind.

1 _____ 4 _____

2 _____ 5 _____

3 _____ 6 _____

REFLECTION: *Comparing the two lists you created above, are there any similarities? Did anything surprise you? What are the overarching ideas that link the student and facilitator experience? Jot down your thoughts below:*

Using the overarching ideas just uncovered, you'll now work to form belief statements that summarize your personal thoughts about the learning experience...

02 YOUR UNIQUE LEARNING BELIEFS

Exploring what you believe to be fundamental components of the learning experience

LEARNING BELIEF STATEMENTS: an outward expression of the **empowering ideas and driving forces behind the educational experience**. They are overarching themes that create the foundation of our approach and propels us forward. Simply put, it's the WHY behind what we do. It's a reminder of who we want to be on our journey, not just that we want to get to the finish line.

I believe **learning should be**

_____

because

_____

_____

I believe **learning should be**

_____

because

_____

_____

I believe **students should feel**

_____

because

_____

_____

I believe **students should feel**

_____

because

_____

_____

I believe **staff should feel**

_____

because

_____

_____

I believe **staff should feel**

_____

because

_____

_____

I believe **staff should be empowered to**

_____

because

_____

_____

I believe **staff should be empowered to**

_____

because

_____

_____

Appendix J - Final Learning Belief Statements

OUR BELIEFS

LEARNING SHOULD BE...

MEANINGFUL & RELEVANT
Strong connections to learning create student buy-in that helps prepare them for an unknown future.

SUPPORTIVE ENVIRONMENTS SHOULD
Immerse learners in simulated, real-world experiences across a variety of topics. Communication and connection should be emphasized as students connect with professionals and peers to further their future-ready skills.

ADAPTABLE & FLEXIBLE
Students learn at different rates and in different ways. Interesting, hands-on experiences lead to lasting memories.

Capture the shifting needs of students through a quick switch between mindsets, modalities and technologies. A multi-use approach maximizes school-wide opportunities and allows education to evolve toward an unknown future.

CHALLENGING
When students are growing, they are more engaged.

Challenge learners by recognizing the importance of individual ownership and choice in experiences. Displaying learning moments, works in progress and finished projects reflects the journey, building perseverance and pride.

STAFF SHOULD FEEL EMPOWERED TO...

BE VULNERABLE, TAKE RISKS & KEEP GROWING
The creative journey of teaching allows for growth in both the teacher and student experience. The field of teaching is constantly changing, and learning is life-long.

SUPPORTIVE ENVIRONMENTS SHOULD
Dissolve barriers and create an even playing field for all staff. Collaboration and connections blossom when space is comfortable and inviting. Taking pedagogical risks is more likely to happen in unique and inspiring environments, encouraging staff to step out of their comfort zone with support.

HAVE A VOICE
Everyone's opinion matters and together, we are better than we are as individuals.

Foster staff connection in a variety of group sizes, leveraging sharing amongst all. Rethinking administrative areas can break down barriers, encouraging leadership at all levels and strong relationships amongst administration and staff.

WHAT WILL MAKE THIS SCHOOL A GAME-CHANGER FOR THE COMMUNITY?

Rethinking the visitor experience starts at the front door. Deliberately breaking preconceived notions about administrative experiences of the past, safety and confidentiality can remain a given while ensuring parents feel valued and invested in their children's learning experience. Clear wayfinding throughout the building allows for the school to function as a comfortable community resource after the school day is complete.

STUDENTS *SHOULD FEEL*

CARED FOR
When relationships exist and students feel valued, they will reciprocate and learning flourishes.

SAFE
Without a fear of criticism, students are more likely to take risks in their learning experience.

EMPOWERED
Students that have a voice in their learning work harder and feel a sense of ownership in the process.

STAFF *SHOULD FEEL*

VALUED & APPRECIATED
A positive work environment leads to motivation and the willingness to go above and beyond.

SAFE
Great kids come from great adults and a sense of fear prevents positive risk taking.

EMPOWERED & CONFIDENT
The opportunity to have ownership in their teaching journey creates an incredible drive to make impact.

Appendix K - Google Sheet Virtual Tool: Large Group Session

We Believe	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Full Staff Draft Statements
learning should be	Differentiated (meet kids where they are at) because active participants are invested in their learning.	Fun and Creative because students should be engaged and excited to come to class/CONNECTIONS	Fun/engaging because Students will retain information when they enjoy it and will learn more when they have their creativity inspired	engaging because active participants are invested in their learning.	fun & engaging because students will retain content and be more willing to participate	hands-on/fun because leads to more interest creating memorable experiences	Meaningful & Relavent because Collect from statements to the left
learning should be	relatable/relevant because when students can make the connection to their world or where they are headed the learning matters and engages them	adaptive and flexible because student learn at different rates, times and different ways	Hands-on because that is way to learn in a different way than what is normal/repetitive	purposeful because if students know why they're learning something, it makes the content more relatable.	relevant/purposeful because students will have more of a buy-in and we will better prepare them for the future world.	authentic/meaningful because creating connections between themselves and what they are learning creates investment and retention	Adaptive & Flexible - Differentiated because Collect from statements to the left
learning should be	interesting/engaging/interactive/fun/challenged because this type of learning drives engagement	?? because ??	Positive because They will gain more from the lessons being taught	collaborative because ??	?? because ??	challenging because that's how we learn and grow	Challenging (Rigor) because Collect from statements to the left
students should feel	cared for because when relationships exist and they feel valued, they will reciprocate that and learning flourishes	empowered because when they do, they can partner, take ownership and feel safe.	Safe because They can learn better when they're not having to worry about outside issues	safe because they can do new and difficult things without fear criticism in a safe environment.	safe because they will be more vulnerable and willing to take risks.	safe and cared for because promotes growth and comfort to take risks and share thoughts	Cared for because Collect from statements to the left
students should feel	empowered/productive struggle/safe to fail/confident because students need to feel safe to take risks to learn/grow and improve in an enivonment that celebrates the process vorsus the end result	valued and cared for because this creates a safe environment that is conducive for students, staff and parents.	Accepted because They will be able to thrive when they feel that they are a part of the group	heard because all of their voices matter.	accepted because they will believe in themselves and that their voice matters.	supported because it encourages students to seek assistance and take risks	Empowered because Collect from statements to the left
students should feel	adventurous/curious because this drives them to explore learning	?? because ??	Empowered because They tend to work harder and feel a sense of ownership	important because they need to know that they matter. When they feel cared for, they are more willing to engage in learning.	?? because ??	empowered because	Safe because Collect from statements to the left
staff should feel	appreicated/cared for/supported because it is a team effort, appreciation drives us to do our best.	empowered because it drives and motivates their work... OWNERSHIP	Appreciated/Valued because Encourages us to be more productive, add more value to our work, think outside the box	valued/respected because a positive work environment is created and motivates teachers to continue performing at high standards.	valued because teaching is hard.	valued/appreciated because leads to motivation and willingness to go above and beyond	Valued/Appreciated/Respected because Collect from statements to the left
staff should feel	calm/safe because if we are worried about external factors it prevents us from taking risks	artistic because are able to create engaging and creative lessons	Safe because We need to be able to focus on being a good teacher	safe because we can't help students learn if we, ourselves, don't feel safe emotionally or physically.	challenged because we all want to do our best.	supported because it leads to teachers taking risks and confident in making managerial and academic related decisions	Safe because Collect from statements to the left
staff should feel	empowered/confident because as professionals we should have control and autonomy	?? because ??	Supported/Respected because Will be able to encorporate the tools they	because ??	?? because ??	passionate about teaching because more engaging and interesting lessons will motivate and inspire students	Empowered & Confident because Collect from statements to the left
staff should be empowered to	make change/push themselves/take risks and fail because because education/kids are constantly changing so we need to adapt to meet them where they are	take risks because this can be transferrable to students to foster an environment of risk taking, critical thinking and problem-solving	Question & take risks because it encourages growth	have choices because content can be taught in lots of ways	take risks because teaching is an ever-changing field.	take risks because this leads to professional growth	Take Risks because Collect from statements to the left
staff should be empowered to	speak up/voice/partricipate in decision making/respectfully disagree with admin because our opinion matters and we should work collaboratively to find solutions	Collaboratively approch decision making because ??	Practice different modes of instruction because that is how the students will learn at their best	be creative because we should be able to try new things without fear of failure.	be vulnerable because because growth occurs when you're vulnerable.	seek professional growth because	Have a voice, speak up and make impact collaboratively because Collect from statements to the left
staff should be empowered to	speak our truth as learners because we should model for our learners what we expect from them.	?? because ??	impact district policies because That influences what teachers can do in their classrooms	because ??	Keep growing because The field is constantly changing and learning is life-long	facilitate learning experiences because ??	Be Vulnurable because Collect from statements to the left