The Influence of Adaptive Schools Training on the Development of Principals' Leadership Identity

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Abstract

Leadership identity is currently viewed as a capacity precursor and necessary for principals to effectively lead learning in schools during today's complex times. This study investigated the influence of Adaptive School (AS) training on the development of principals' leadership identity. Through an interpretive qualitative approach, interviews took place with 12 North American public-school principals from elementary, secondary, or blended schools. Through semi-structured interviews, the principals shared their experiences and how they used what they learned in response to the AS training. The themes from the research revealed that the AS training had a clear influence on these principals' leadership identity. They highly valued the training and found it helpful, and applicable to their leadership. In addition, they found the training format to be useful in providing clarity on how to facilitate learning in their schools, as a "leader for learning." Seven of the participants described the AS training as transformative. Others relayed how it provided clarity for how to enact their already well-defined leadership identities. The principals used what they learned in meetings; in particular, they applied norms of collaboration, dialogue, and discussion structures in their schools after the AS training. They found understanding the concept of complex adaptive systems (CAS) helpful to manage complexity and uncertainty by being more calm, open, objective, and responsive. Some principals noted areas for development within the organization, Thinking Collaborative, in particular, the need for further racial equality, Canadian accessibility, and adaptivity in a pandemic.

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Dedication

This dissertation is dedicated to my dear brother, Ted Wolters, for his ongoing coaching, encouragement, and cheerleading. Thank you, Ted, for your positive influence on my journey as a teacher, vice-principal, principal, and doctoral student. Love you.

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Chapter One: Introduction

> What avail is it to win prescribed amounts of information about geography and history, to win ability to read and write, if in the process the individual loses his own soul: loses his appreciation of things worthwhile, of the values to which these things are relative, if he loses desire to apply what he has learned and above all loses ability to extract meaning from his future experiences as they occur.
>
> -John Dewey, Experience and Education, 1859-1952

> My favorite life forms right now are dandelions and mushrooms – the resilience in these structures, which we think of as weeds and fungi, the incomprehensible scale, the clarity of identity, excites me. I love to see the way mushrooms can take substances we think of as toxic, and process them as food, or that dandelions spread not only themselves but their community structure, manifesting their essential qualities (which include healing and detoxifying the human body) to proliferate and thrive in a new environment. The resilience of these life forms is that they evolve while maintaining core practices that ensure their survival. A mushroom *is* a toxin-transformer, a dandelion *is* a community of healers waiting to spread . . . What are we as humans, what is our function in the universe? (Brown, 2017, p. 9)

Effective principal leadership in schools is essential. Previously principal leadership had been identified as the second most influential element to contribute to student success in schools, the first being the role of the teacher (Hambrick Hitt & Tucker, 2016, Leithwood et al., 2008). However, in recent research, effective principal leadership has been seen as equally as important

to teachers and certainly understated in former literature (Grissom et al., 2021). School leadership is viewed as “the key mechanism to transform educational practices” (Riveros et al., 2016, p. 593) and there are no schools that have shifted student learning positively without it (Leithwood et al., 2006). The weight of principal leadership responsibility and potential influence warrants focusing on understanding what contributes to their effectiveness.

Currently, the principal role, with increased demands and complexity, is experiencing deep change in British Columbia and across Canada (Wang, 2020). In a national research study of the future on the principalship, 500 Canadian school administrators provided their input to determine what is influencing its complexity (ATA, 2014). While relevant themes included changing technology, family and school conditions, and cultural and social influences, student diversity was also highlighted as fundamental to contextualizing modern school challenges affecting principal leadership (ATA, 2014). Today’s educational demands require school leaders not only to thoroughly understand instruction and interventions that influence student achievement for all, but also to possess the ability to adapt and collaborate to lead educators in these changes and challenges (Daniels et al., 2019; Hambrick Hitt & Tucker, 2016; Jones & Harris, 2014; Kegan & Lahey, 2009; Zaretsky et al., 2008). In addition, leading significant change requires new leadership approaches that go beyond traditional approaches of command and control (Groysberg & Slind, 2012); such changes could be overwhelming for leaders as they navigate learning different ways of knowing and leading.

Due to the relevancy and importance of principals’ capacities for leading student learning in schools, and the increased complexity of the role, their development should not be ignored and left to chance (Bush, 2009). Extensive research has focused on ways to prepare, further develop, and train these key leaders although there is an ongoing debate about the best ways to do so

(Bush, 2009). Kegan and Lahey (2009) asserted that there is a traditional over-emphasis on *leadership* without attending to *development* in many leadership programs. More recently, there is growing interest in an emerging field of research in principal development specifically in leadership identity as a support for advancing their effectiveness (Cruz-Gonzalez et al., 2021; Nottman, 2017). While a growing number of models and methods focus on developing identity, such as group coaching (Aas & Vavik, 2015; Aas et al., 2020), Adaptive Schools (AS) training is one approach to leadership learning that some principals have pursued. This training highlights attention on leadership identity (Garmston & Wellman, 2016) while also addressing the adaptive and collaborative skills required in todays' schools (Hambrick Hitt & Tucker, 2016; Jones & Harris, 2014; Kegan, 1982, 1994; Kegan & Lahey, 2009; Zaretsky et al., 2008).

The purpose of this qualitative study was to explore the influence of AS training on the development of principals' leadership identity. Through this investigation, this study intends to understand and provide clarity regarding how the AS concepts, processes, and skills, introduced through the training, contributes to the further formation of principal leadership identity. Due to the emerging contention that principals' leadership identity is relevant to their effectiveness, this study can provide potentially important information.

The rest of this chapter will examine and clarify six areas, namely, my positionality and context in this study, a working definition of leadership identity, background information, specific research questions under investigation, main literature review topics, and the importance of this study.

Positionality and Context

My experiences, identity, and view of the world will influence how I design, engage in, and interpret the findings in this study. I am a White female educator, and principal in Canada. It

is important for the sake of transparency and validity to share that I am also an Agency Trainer for Adaptive Schools. I believe strongly in its value. My passionate interest in AS training that led me to a simultaneous interest in pursuing doctoral learning (Holley & Harris, 2019), yet I remain mindful of the risks that possessing a bias for AS may present in this study.

The purpose of this study was not to "prove" the value of AS or even to evaluate its impact, but instead to critically explore and unpack the nature of its influence on principal identity and adaptivity, from the perspective of others who have experienced the program. AS is but one tool through which to develop identity, but it is a tool with which I am familiar. Through this thorough qualitative exploration, the intention was to provide a co-constructed understanding of and clarity about how AS concepts, structures, and skills that are part of the AS training, may (or may not) contribute to the development of principal leadership identity for principals in North America.

In this study, I was especially cognizant of member-checking and asking open-ended questions in a way that allowed the participants to feel they could truly express their views candidly. Moreover, throughout I endeavored to remain self-aware and open to the unexpected that emerged from the participants responses.

Working Definition of Leadership Identity

As leaders encounter different contexts, challenges, and expectations within their work, authors such as Ibarra et al. (2014) and Notman (2017) have illuminated the role of leadership identity as an influential force to consider for their success. In a review of literature on principal success, principal identity has only recently been identified as a capacity precursor and requirement for their effectiveness (Crow et al., 2017). Thus, it is crucial to understand how principals construct their professional leadership identity to get a better grasp on how these "self-

authoring" identities can influence student performance and navigate change (Cruz-Gonzalez et al., 2021; Kegan & Lahey, 2009; Rayner, 2017).

Researchers recognize a literature lacuna in this field of study and advocate for further inquiry to understand how principals both define and construct their leadership identity (Cruz-Gonzalez et al., 2021). Breakspear (2017) concurred and relayed that typically studies have explored what leaders have been able to understand and do. He added that in recent years a trend has surfaced to focus more on leadership identity work, and defines identity as "a sense of self, who they are, and how they express that within the groups they work" (p. 7). While this definition of leadership identity is helpful, a more detailed clarification of leadership identity is necessary and appropriate because leadership identity lies at the heart of this study. For the purposes of this project, then, I primarily utilized the explanation of identity that is offered through Thinking Collaborative (2019), the organization that leads the Adaptive Schools Foundations and Advanced Seminars, as follows:

> Our identity, who we are, drives our perceptions of the world, our interactions with others, our construction of meaning, our choices and behaviors, and the way we fulfill the responsibilities of our many roles. How we carry out each role is influenced by the identity we develop for ourselves. Our beliefs, values, capacities and behaviors are congruent with our sense of identity. (p. 16)

In brief, then, for principals, identity influences how they engage, how they make sense of the world, and how they respond to day-to-day tasks and challenges, alongside their beliefs and values. In essence, identity impacts how they lead.

Description of Adaptive Schools Training

While I elaborate on Adaptive Schools training in Chapter Two, it is important to provide an initial overview of the AS program. The Adaptive Schools Foundation and Advanced Seminars (AS) is a branch of a larger organization called, "Thinking Collaborative," and its goal is to develop educator's capacity as collaborators, inquirers, and leaders. AS seminars provide a way for educational leaders, such as teachers, principals, and directors of instruction, to receive training in leadership and collaboration to address complex challenges in education today, with a particular emphasis on considering leadership identity (Garmston & Wellman, 2013, 2016). Through AS, the objective is for individuals, groups, schools, and systems to learn to become more effective:

> The Adaptive Schools Foundation and Advanced Seminars present a productive, practical set of ideas and tools for developing collaborative groups in becoming effective and better equipped to resolve complex issues around student learning. The work of the Adaptive Schools Seminars is to develop the resources and capacities of the organization and of individuals to cohesively respond to the changing needs of students and society (Thinking Collaborative, 2021, para. 3).

Educators at all levels of school systems can participate in the various AS seminars offered, beginning with the four-day Foundation Seminar, followed by the four-day Advanced Seminar. These seminars can be delivered in various formats such as four days in a row or separated by one or two days at a time, over the course of several months. Training focuses on three learning areas, namely, how to facilitate groups, how to develop groups, and how to become a more successful group member. Participants are introduced to core concepts, skills, and processes with the intent of developing one's ability to become more collaborative and

productive in groups. The AS seminars are experiential in nature, with a host of activities to support adult learners to develop their understanding.

During the Foundation Seminar, day one begins with reviewing the goal of the AS seminars and a focus on building community. More specifically, inclusion activities encourage participants to bring their voices in the room, build relationships with others, and establish norms for participation (Thinking Collaborative, 2019). The core concept of adaptivity is also introduced with examples from nature, and connections are made to groups and systems, through readings and conversations in pairs, small groups, and the whole group.

Over the course of the four days, through intentional design, participants are introduced to research on professional community, ways to navigate conflict, tools to diagnose team effectiveness, principles for constructive decision making, and standards for productive meetings. It is essential to note embedded throughout the seminar, that the norms of collaboration, alongside structures for dialogue and discussion, and regular intervals for reflection, give participants the opportunity to consider, practice, and apply the skills to the concepts being taught. These norms of collaboration include pausing, paraphrasing, posing questions, putting ideas on the table, providing data, paying attention to self and others, and presuming positive intentions (Baker et al. 1997; Garmston & Wellman, 1998; Thinking Collaborative, 2019). This is not a “sit and get” kind of experience. Rather a triple-track agenda highlights tasks, processes, and group development and allows for comprehending in an authentic way what is meant by high-performing groups within the room, in other adult contexts, and in student classrooms.

Should participants desire to pursue more in-depth training of and contribution to the AS work, they can engage in the pathway to become a school district facilitator, called an Agency

Trainer. This trainer can facilitate the Foundations Seminar within their system, which does not cost anything for those who register, except for the cost of the learning guide. There is no financial benefit for the Agency Trainer. Should participants wish to continue further and become a consultant, that is, a Training Associate (TA) (Garmston & Wellman, 2016), they can be hired by groups, schools, or systems to facilitate the Foundations or Advanced Seminars. The cost for each participant when delivered by a Training Associate is approximately US$1000 for each four-day seminar. The Thinking Collaborative website (https://www.thinkingcollaborative.com/) provides a list of Agency Trainers in different North American or international areas for schools and districts to access.

Adaptive Schools and Identity Development

Of relevance for this study, a core concept of the AS work is on developing one's individual and collective identity, to inform leadership learning and actions, particularly during times of change (Garmston & Wellman, 2013, 2016). The AS training invites everyone to consider their leadership identity. The concept of adaptivity is also introduced to participants on day one in connection to various roles in an educational system. In AS, adaptivity means "to change form while clarifying identity" (p. 4) and to release old educational forms while engaging in an on-going clarification of identity. Educational leaders, whether teachers, principals, directors, or librarians, are perceived as needing to engage in an on-going inquiry into how the forms of education and leadership, that is, how education is delivered and how one leads, need to adjust and be responsive to our changing world. This simultaneously requires an on-going clarification of one's identity, or sense of self and ways of constructing meaning, through beliefs and values, which guide decisions and actions.

Garmston and Wellman (2016) acknowledged the many pressures, whether "demographic, technological, economic, environmental, social or political" (p. 5) that require educational leaders to be adaptive, with a clear identity so that new educational patterns and practices to emerge. To support such an understanding of adaptivity and the relevance of one's identity, the AS training fosters educational leaders, of all levels, to focus on three central questions to guide reflection, learning, decisions, and actions. They are:

1) Who are we?
2) Why are we doing this?
3) Why are we doing this this way? (Garmston & Wellman, 2016, p. 10)

Regardless of one's role in education, whether principal or otherwise, AS training participants encourages to recognize there is a need, both individually and collectively, to continually engage in foregrounding and clarifying one's identity, to align with the changes needed in education. The question remains, then, in relation to this study, how does AS training influence the development of principals' leadership identity?

Research Questions

The purpose of this qualitative study was to discover how and in what ways participation in AS Training influences the development of principals' professional identity. To clarify, this is not a comparative study of various leadership development programs, but an in-depth exploration of the influence of one program on school leaders. Twelve principals who lead in North American schools and who have also attended the Foundations and Advanced AS training seminars took part in interviews. The specific guiding research question asked is:

1. In what ways have the concepts, processes, and skills in the AS training been influential in the development of principals' leadership identity?

The related sub-questions are:

i. How does the AS training influence the development of principals' leadership identity specifically as a leader of learning?

ii. How might an understanding of adaptivity and complex adaptive systems (CAS) influence principals' leadership identity?

iii. How might the way the AS seminars are presented influence principal learning and leadership identity?

Importance of the Study

Effective principal leadership continues to be as critical as ever, as principals maneuver a plethora of expectations, diverse needs, and complexities to lead their schools in relevant student learning (Hambrick Hitt, & Tucker, 2016; Leithwood et al., 2008). Prioritizing principal development cannot be overstated since getting principal leadership and individual ongoing progress right can impact underperforming schools and the trajectory of students' lives (Darling-Hammond et al., 2007). Moreover, given the emerging field and paucity in research on principal leadership identity, as an aspect to better understand and contribute to leadership development and effectiveness (Cruz-Gonzalez et al., 2021), this investigation added to the literature on that topic. This study illuminated how the AS concepts, processes, and skills influenced the development of principal leadership identity. It also cultivated implications for further research topics.

Additionally, the lens and approach used in this study were particularly revealing. They helped to increase understanding of the influence AS may or may not have on the development of principals' leadership identity from three reference points: namely, from the individual principal's perspective, from the collective or systems outlook, and from the AS training view.

The following paragraphs describe these three stances to provide more detail to confirm the importance of the study.

First, principals across North America and in other similar school settings choose to participate in various professional development training that hopefully is well-worth their time and investment. From a local perspective, the Comox Valley Schools District on Vancouver Island has more than 40 school principals and vice-principals. All are encouraged to participate in leadership development and given funds to choose where to invest in their learning. From a wider lens, more than 2,600 principals lead in over 60 school districts in the province of British Columbia; they make choices every year regarding what leadership development program to engage in. This study may provide helpful guidance on the extent to which AS, as a form of leadership training, has value for their professional development.

Second, for superintendents and provincial leaders, who create, advocate for, and implement system leadership development frameworks and programs for principals, this study may provide important suggestions and recommendations for consideration. The British Columbia Principals and Vice Principals Association (BCPVPA, 2020), for example, like other provincial associations across Canada, create and offer programs for their members to develop their leadership capacity. Furthermore, currently, the BCPVPA continues to identify leadership capacity building as a key strategic focus for these leaders' development, due to the needs expressed by their members (BCPVPA, 2020). The results of this study may be informative to clarify ways to meaningfully engage principals in learning that aligns with leadership identity building, should the results further reveal the relevance of attending to their identity.

Finally, principals who engaged in this study, already trained in AS, made use of their learning, and developed their leadership identity, which illuminated recommendations for the AS

organization, Thinking Collaborative. In turn, these suggestions may further inform the training the organization offers. Thinking Collaborative may benefit from insights through this study.

In this chapter I began with introductory information about the importance of the role of principal in schools today. I described my positionality and context as the researcher; included a working definition of leadership identity; offered an initial description of AS training in connection to some of the research on leadership identity development; specified the research questions; and outlined the importance of this study. Chapter Two provides an in-depth exploration into literature related to this study with six main topics of interest, leadership identity, principal work intensification, leadership models, leadership training and development, complex adaptive systems, and the AS training core concepts.

Chapter Two: Review of Literature

The principal possesses a critical role in influencing school and student learning (Hambrick, Hitt, & Tucker, 2016; Leithwood et al., 2008). While some research has clearly identified the prominence of the principal in impacting learning in schools as second to the teacher (Hambrick Hitt & Tucker, 2016; Leithwood et al., 2008), others argue that because principals' influence extends to a greater number, their position is even more critical (Branch et al., 2013; Jensen et al., 2017). Hence, the ways present-day mutable student and societal realities impact administrators, the ways principals effectively actualize their responsibilities, and the ways school leaders' training and development can influence their success build the rationale for this research.

This review contains six sections. It begins with a discussion on leadership identity since it is a central concept for this study. Following this is an overview of research on the current volume and complexity of school administrators' work intensification to contextualize professional development needs. Next is a description of the necessary leadership approaches and models that can contribute to their effectiveness. Then, a review of current leadership training and development forms and characteristics elucidates pertinent professional learning choices for these essential school leaders during a time of complexity. Next, the concept of complex adaptive systems (CAS) is introduced and explained as it is a central concept in the AS training. Finally, a detailed review of AS training is provided. This review shows that leadership identity is fundamental for success. While leading schools has become more complex overtime, training and professional development related to these changes must evolve as well.

Leadership Identity

A paucity of research exists relating to the role of identity in leadership, but this topic, in connection to the principal role, is an emerging field of interest (Cruz-Gonzalez et al., 2021). Notably, the draw for exploring this topic stems from principal identity being a capacity precursor and requirement for leadership effectiveness in schools (Crow et al., 2017; Miscenko et al., 2017; Ritacco & Bolivar, 2018). Additionally, Ibarra et al. (2014) and Notman (2017) stressed the role of leadership identity as an influential force for leadership success, while Miscenko et al. (2017) suggested leadership identity as motivational for fostering professional growth. Mpungose (2010) added that principals' leadership identity is the basis for influence to enact their role, beyond policy prescriptions. With these main reasons for probing into leadership identity in mind, the literature review provides a richer discourse on a rationale for principal identity relevance. In addition, the review examines what is meant by leadership identities and how principals construct leadership identities based on research studies.

Why a concern for developing principal leadership identity? Crow and Moller (2017) argued in their rationale for investigating identity that the leadership literature has primarily emphasized desirable leaders' skills and competencies, as opposed to their beliefs, values, and very identities. Inevitably, they highlighted that a technocratic position has dominated the efforts to develop leaders, through certain mandates and policies. But such an approach misses the complexity and uncertainty of schools. They brought to the fore a movement toward a mechanical "designer leadership," (p. 150) which may be tempting to consider even though leadership identities are overlooked with such a lens. In support, Cruz-Gonzalez et al. (2021) advocated for deeper explorations into how principals think, feel, and believe. In addition,

Breakspear (2017) observed the often-absent attendance to identity work in leadership learning, and recommended deeper work is needed.

Lumby and English (2009) pointedly described leadership identity promoted within traditional leadership development, as singular, possessing over-simplified, cookie-cutter dimensionality. They advocated for one's leadership identity as deep, multiple, values-based, and interactive, within oneself and within the greater world. They emphasized the notion that the unitary view of self, contradicts the complex realities in schools. To be clear, they argued that a simplistic view of identity contributes to a resistance to richer leadership exploration, such as how accountability agendas subvert the engagement of one's full self, amid one's active emotional life and one's moral reasoning. These authors went on to relay how schools are conceptualized as bureaucratic environments with rules and regular routines that attempt to remove the complex nature of schools. They explained:

> leadership identity should be constructed as plural as opposed to singular . . . Contemporary leaders must have multiple identities to work with an increasingly differentiated clientele and to move within and across multiple groups within his/her spheres of work and influence . . . Lastly we see a dramatic difference between routinization and ritualization. They are not the same. The former erases the need for human agency while the latter requires it. Rituals are the stuff of establishing meaning in the world of action. They define the values within leaders work. They are the staples which connect a dynamic tension and relationship between leaders and followers as all become players in the landscape of human theater (p. 30).

Certainly, the nature of leadership identity they described corresponds with modern-day educational complexity and the necessity for individual and collective meaning construction. The

questions “Who are we? What are we about? For what should we be striving?” (Lumby & English, 2009, p. 9) arise here. This inquiring posture corresponds with the AS training, which may influence the development of principal leadership identity - the heart of this study.

Thomson (2009) stated that leadership “is more than simply a way to do things, it is also a way to be and understand the world” (p.1). This also prompts a deeper consideration of leadership identity and the way one constructs meaning. Kegan’s (1982, 1994) work, in fact, spotlighted the various ways adults understand and address life through different ways of knowing, or internal maps that guide perceptions, emotions, and cognitions, in keeping with the meaning of leadership identity in this study (Zimmerman et al., 2019). Further, Kegan and Lahey (2016) saw the need for mental complexity growth as critical in leadership today. Thus, they promoted adult development as being woven in as part and parcel with leadership development. Interestingly, the literature in reference to leadership and identity (Breakspear, 2017; Breakspear et al. 2017; Crane & Hartwell, 2018; Drago-Severson, 2012; Drago-Severson & Maslin-Ostrowski, 2018; Hesling et al., 2008; Hesling & Howell, 2014; Kershner, 2021; Petrie, 2014), consistently referenced Kegan’s (1982, 1994) and Kegan and Lahey’s (2009) work.

In a comprehensive review of the literature on principals’ leadership identity from 1993 to 2019, Cruz-Gonzalez et al. (2021) summarized research on the professional development, training, and experiences that influence the development of leadership identity. They noted that some scholars suggest all principals, whether beginning or seasoned, continue to develop their identities (Robertson, 2017). For beginning principals, the transition may demand a more consciously constructed shift in their identities (Simon et al., 2018). Cruz-Gonzalez et al. (2021) pointed out not only the need to train principals to foster values acquisition in alignment with leadership expectations, but also the limited studies that delve into this area of research. They

acknowledged that international leadership programs run aground for developing adaptive leadership identities, which also affirms the push for future exploration.

Due to the lack of research on the influence of specific forms of professional development on leadership identity, a recent Norwegian qualitative study (Aas et al., 2020) is striking. These researchers raised the value of group coaching as one promising professional development tool to foster role clarity and the growth of principals' leadership identity. They asserted that an essential quality of leadership learning often missing is ways to facilitate learning processes that do indeed help principals develop their identity. It appears that group coaching, as described by Aas et al. (2020) through sharing experiences and questioning others within the group, is a favourable approach for fostering leader development.

Miscenko et al. (2017) mapped the changes in leadership identity in response to a specific seven-week leadership development program. The results revealed leadership identity developed in a j-shaped pattern, which coincided with an understanding that identity does not develop in a linear way. This study showed leaders began the program with strong identities that dipped in response to the training, but then extended past the original strength of the initial identities at the outset. The overall change in response to the training was positive. These authors asserted that identity deconstruction, or "temporary disengagement from leadership roles and processes" (p. 617) is an important part of the identity change as leaders come to terms with new understandings.

Robertson (2017) added to the conversation in a case study exploring New Zealand principal identities and inquired into self-perceptions while these administrators were in the process of leading complex change in their schools. She brought attention to how the thinking, feeling, acting, and believing aspects of leadership identity respond to the change even though

the believing self was more constant. Basically, the core principal beliefs continued to act as a compass during the change experience. She discovered the usefulness of reflection, and connection with professional networks to enhance the changing leadership identity, no matter whether novice or experienced. Her findings coincided with what others maintain regarding the on-going process of becoming in leadership development as well as the key aspects of social networks to support identity construction (Crow et al., 2016). Leadership identity construction occurs through individual reflection and social engagement, as one makes meaning over time. Given the focus of this study on the influence of AS training on principals' leadership identity, which has a collaborative emphasis, her research highlighted that learning and reflection, especially within networks, can enhance the development of their identity.

Considering the research on leadership identity, according to Kershner (2021), leaders' development must possess "an increased complexity of consciousness and an ability to construct one's own internal belief system, standard, or personal filter that enables one to make meaning of oneself and one's work in new ways" (p. 438). Other researchers' (Breakspear, 2017, Crane et al., 2018; Jeannes, 2021; Kegan & Lahey, 2009) emphasized inner, personal understandings, and ways of meaning-making. The importance of leadership identities is summed up by Crow and Moller (2017) who emphasized that while principals need skills and knowledge, it is their very identities, in conjunction with beliefs and values, that provide direction for their choices.

To sum up, leadership identity has recently surfaced in the literature as a foundational and influential force for leaders to enact their role (Cruz-Gonzalez et al., 2021). Some researchers have argued that traditionally leadership development has targeted skills and competencies, a technocratic approach, not in alignment with the complex needs of leaders today (Crow & Moller, 2017). Others have noted the nonexistent attention on the importance of

leadership identity and advocate for richer exploration to better prepare leaders that considers their meaning-making abilities (Lumby & English, 2009). Several authors added the necessity to address not only the *doing* facets of leadership, but also the *being* senses, and the ways leaders construct meaning to include an emphasis on adult development (Breakspear, 2017; Breakspear et al. 2017; Crane & Hartwell, 2018; Drago-Severson, 2012; Drago-Severson & Maslin-Ostrowski, 2018; Hesling et al., 2008; Hesling & Howell, 2014; Kegan & Lahey, 2009; Kershner, 2021; Petrie, 2014). Leadership effectiveness through an identity emphasis surfaces the need for identifying relevant learning that can indeed support this key work. Promising tools include group coaching (Aas et al., 2020), as well as reflection within a professional network (Robertson (2017). Essentially, leadership identity was viewed as fundamental and relevant to inform ways of leading during complex times. Promoting fitting learning to support leadership identity is key.

Work Intensification in the Principalship

Dargo-Severson (2012) described being principal as “one of the most difficult, complex, and challenging jobs” (p.2). Meanwhile, both Canadian and international researchers have articulated changes in principal work intensity due to technology advancements, student diversity, policy shifts, diminished school budgets, and demographic changes (ATA, 2014; Riley, 2019; Pollock et al., 2015; Wang, 2020). On-going changes have led to an increase in the volume and complexity of principals’ responsibilities, creating further stress, less job satisfaction, and less job desirability for potential upcoming school administrators (Wang et al., 2018). This review will discuss research in relation to principal work escalation, in light of not only the number of tasks and duration required to complete them, but also the need for principals to be adaptive to the changes necessary in education.

In a recent study, Wang (2020) explored how Ontario principal work demands are influencing how they perform their leadership duties. He distinguished between job challenges and job hindrances. While job challenges have an endpoint and potentially are overcome, job hindrances can be more institutional and long-standing. Should both challenges be approached in the same way, further stress which increases over time, may occur.

Pollock et al. (2015) explored factors that drive principal work, recognizing the challenges of the number of tasks and duration taken to complete them, which impacts their ability to be effective. Particularly noteworthy, 74% of principals involved in the study expressed a desire for more opportunities for professional development engagement to help them in the challenges of their work, specifically, training in "emotional intelligence, communication skills, and knowledge of teaching and learning" (p. 549).

However, while school administrator work is increasingly voluminous, it is paramount to accentuate there is a push for fundamental shifts in ways school administrators lead (Hambrick Hitt & Tucker, 2016; Helsing et al., 2008; Jones & Harris, 2014; Kegan & Lahey, 2009; Petrie, 2014; Zaretsky et al., 2008). In fact, principals are not only charged with the on-going mounting work of running schools, but also being simultaneously required to reinvent schools (Helsing et al., 2008). Jensen et al. (2017) concurred in an investigation into principals of high performing systems, stressing there is no manual to follow to ensure successful leadership, due to the complexity and constantly changing context of education.

Petrie (2014) added that organizational leaders must now work in volatile, uncertain, complex, and ambiguous contexts, also known as VUCA environments. As a result, Petrie (2014) advocated for more complex thinking beyond what was traditional for leaders, referring to the work of Kegan and Lahey (2009) who argued that an intentional focus on adult

development and ways of knowing are necessary for leaders' professional development. McGuire and Rhodes (2009) agreed and stated that developing one's thinking can occur when the challenges encountered cannot be resolved without transforming the way one thinks. Principals may not have been trained in the approach being advocated for by researchers, even though the settings in which they work are demanding new ways of thinking.

Drago-Severson and Maslin-Ostrowski (2018) recognized the changing nature of the principalship, stressing that principal challenges are pressing. Utilizing Heifetz and Linsky's (2009) explanation of adaptive leadership, they delineated leadership challenges in three ways. Organizational challenges, such as the current work of principals, are viewed as technical, or complex yet solvable; adaptive, or complex with unclear solutions; or a mixture of both technical and adaptive elements (Drago-Severson & Maslin-Ostrowski, 2018). School leaders' work intensification is connected to their ability to be able to identify and respond to these different kinds of challenges. Pollock et al. (2015) agreed and highlighted that principals' ability to grow their cognitive skills and emotional capacities is necessary for leadership training and development.

In brief, principals acknowledged the need for more professional development opportunities to support them to be successful in their intense work (Pollock et al., 2015), while researchers (Drago-Severson & Maslin-Ostrowski, 2018; Petrie, 2014) highlighted a need for new ways of thinking and approaching complex challenges for these key leaders. Certainly, principalship is not for the faint of heart with mounting principal demands along with the push for school transformation. Relevant principal professional development and training based on effective leadership approaches appears to be as critical as ever.

Leadership Approaches for Principals

Referencing leadership models to frame principal effectiveness can provide insights to the work, training, and development of these educational leaders as they develop their identities (Van Wart, 2013). The specific leadership theories commonly identified in the literature include management, transactional, transformational, transformative, distributed or collaborative, instructional, organizational, and ethical leadership theories (Ainscow & Sandill, 2010; Boscardin, 2005; Cobb, 2015; Fullan & Hargreaves, 2015; Hambrick Hitt & Tucker, 2016; Jones & Harris, 2015; Leithwood et al., 2008; Leithwood & Sun, 2012; Shields, 2010; Sider et al., 2017; Van Wart, 2013; Zaretsky et al., 2008). However, some of these leadership theories and related practices are tied to having the most influence on student learning. These include distributed, instructional, transformational, and transformative leadership (Boscardin, 2005; Daniels et al, 2019; Hambrick Hitt & Tucker, 2016; Hauserman & Stick, 2013; Shields, 2010). As a result, these theories, although they have overlapping characteristics, pertain to principal leadership and effectiveness. The following section outlines literature that clarifies the most applicable and up-to-date leadership approaches and models to support the modern day principalship.

Hambrick Hitt and Tucker (2016) shared that principals began to be viewed as instructional leaders in the mid 1980s, with a formerly more hierarchical, managerial component. However, effective principals are repeatedly identified as instructional leaders; this model is perceived as becoming more diverse, to include leadership responsibilities for team learning and teacher professional growth. (Zaretsky et al., 2008). Originally an instructional leadership model seen as more top-down and principal driven (Daniels et al., 2019), in this updated model, principals have the responsibility of being informed not only about general education, but also

about inclusive education (Boscardin, 2005; Leithwood & Sun, 2012). Another way to view this important model is to recognize that instructional practice, or the "technical core" (Leithwood & Sun, 2012, p. 410) of teaching, that supports students with learning challenges, also serves to benefit all students (Cobb, 2015). When principals lead instruction, they would do well to prioritize collaborative educational practices that includes inclusive student approaches with their teachers.

In addition, instructional leadership is understood as shared or distributed (Hambrick Hitt & Tucker, 2016), in which the principal possesses "a collaborative and inclusive spirit . . . and distributes responsibility and decision making while also eliciting input" (p. 536). Jones and Harris (2013) discussed how principals build social capital, and, from this stance, the best principals facilitate thoughtful collaboration. Interestingly, through effective team work on best practices, collective influence can impact positive improvement and change. Fullan and Hargreaves (2015) referred to this as "use the group to change the group," (p. 6) and it sits at the center of building social capital.

Originally coined by Burns (1978), transformational leadership is a theory that emphasizes ways leaders engage and inspire, alongside specific behaviours to elicit teacher commitment. Accordingly, a transformational leader highlights the importance of working toward a school's mission with foundational values, informing collective work (Pandey et al., 2012). From Shields' (2010) perspective, transformational leadership accentuates and targets organizational improvement and effectiveness.

Shields (2010) also built a strong case for transformative leadership, more specifically defined as "challenging inappropriate uses of power and privilege that create or perpetuate inequity and injustice" (p. 564) in education. She refers to other transformative researchers, such

as Mezirow (1991), who viewed this leadership model as a way to alter an individual's frame of reference (Shields, 2016). In brief, Shields (2016) identified common elements in a transformative approach to be about social enhancement through understanding equity issues, to delve into outdated knowledge and beliefs.

Fullan and Sun (2012) suggested an integrated approach to leadership as most helpful, that includes not only instructional leadership, but also organizational leadership, encompassing a transformational approach. Thus, a leadership focus on classroom conditions and expanded organizational conditions that facilitate student experiences, is a combination of leadership models that are most needed. Hambrick Hitt and Tucker (2016) concurred, stating that "each alone is insufficient, but when enacted in tandem, student achievement is increased" (p. 535).

In a comprehensive review of the literature on educational leadership from 1970 through to 2018, Daniels et al. (2019) clarified the importance of an integrative leadership model that includes qualities of instructional, situational, distributed, and transformational leadership. They noted the emergence of a "Leadership for Learning" (LfL) model and how it integrates the aforementioned leadership models. They explained that LfL targets a school-wide learning focus, not only for students but also for teachers; this focus emphasizes collaboration and teamwork, particularly capacity building, that explicitly pursues improvements in student achievement. Most strikingly, LfL is evident in high-performing schools (Daniels et al., 2019).

Given that Daniels et al. (2019) assuredly advocated for LfL for principal effectiveness in their recent review, a further exploration into ways these practices support principals to develop such leadership identities is unquestionable. Due to the emphasis on distributed, instructional, transformational, and transformative leadership models in the literature, and due to the

integration of these within the LfL model, accentuating such an approach for principal training and development appears to garner worthy attention.

To summarize, the leadership theories that are currently most influential for today's principal practice are distributed, instructional, transformative, and transformational. Principals who prioritize instructional leadership emphasize team and teacher learning in a shared, horizontal style in which inclusive educational practices are considered central. While a transformative model addresses social equity issues, a transformational one delivers collective values and an improvement and school effectiveness agenda. A Leader for Learning (LfL) model integrates these current theories with findings that support high performing schools.

Principal Training and Development

For principals to evolve their leadership identities in order to manage the volume and complexity of work intensification at a time of dynamic change, principal professional development needs thoughtful consideration and cannot be left to chance (Bush, 2009). This section reviews literature in reference to the credentials required for the position, the learning opportunities principals may choose to pursue at different points in their career, as well as the elements of highly regarded leadership development programs and training.

When considering principal professional development and training along with the credentials required to be hired by school districts, it is important to attend to ways principals may or may not be prepared as beginning leaders entering the profession. In Canada, each province has differing credentials required for the principal role and varying professional development opportunities to support them (Pollock & Hauseman, 2015). For example, in British Columbia, a master's degree, in education or leadership, is mandatory while additional certification is not required; this is typical for most provinces. However, in Alberta a recent

government-initiated certification program is also required beyond a master's degree. Closer to the east coast of Canada, Quebec has several partner groups working together with the provincial government to develop a compulsory principal qualification program for any teacher wishing to become a principal, in addition to the graduate degree expectation (BCPVPA, 2019).

Each province has different influential stakeholder bodies that organize, implement, and lead principals' leadership learning from provincial governments, principal associations, and a collective of both. Again, in British Columbia, the local principal organizational association coordinates conferences and seminars for principals at various points in their career. For new principals, the week-long Short Course, is offered to support their transition; and the Leading a Culture of Learning Courses 1 and 2 support principal cohorts from different districts, at any career point, to engage in professional learning that extends over the school year (BCPVPA, 2019).

Churchley et al. (2015) investigated the various kinds of leadership development and preparation programs offered to Canadian principals. For instance, the study found that there are non-credit leadership development opportunities for BC principals to participate in, which the authors argued illustrates that a master's degree is insufficient for preparing today's school administrators. Pollock and Hauseman (2016) concurred and summarized some of the research that identified principal training limitations such as an insufficient emphasis on the emotional and values-based aspects of their work. They also mentioned some research findings that have led to questions regarding the graduate programs as sufficient for the demands of the role. Other American authors (Darling-Hammond et al., 2005) agree, citing a perspective that some leadership training is not current enough to be able to address the demands of the job.

The British Columbia Principals' and Vice-Principals' Association Report (BCPVPA, 2019) outlined survey responses from principals who shared what they feel is required, missing, and preferred for their professional development needs. Some similar themes emerged, such as a preference for team learning within principals' networks specifically related to improving student learning, more time for professional development, learning about collaboration with effective processes to support it, and thoughtful on-going mentorship.

The comprehensive review of Daniels et al. (2019) is appropriate for further analysis. As mentioned previously, these authors maintained the value of an LfL approach to leadership, and additionally explored school principals' development. They summarized the range of learning forms typically offered for and chosen by principals as informal; intentional; and formal training. They pointed to several foci for professional learning, such as cognitive learning, process-oriented learning, and reflexive learning, through supervisor-given feedback. Notably, these scholars mentioned that the research on understanding principals' professional development is vague. Nevertheless, the key themes they accentuated for leader learning are to involve thoughtful design, networks with others, contextual experiences, be on-going, and experiential in nature.

In an important study on school leadership preparation, Darling-Hammond et al., (2007), explored the state and characteristics of principal leadership development programs to surface those that would be considered highly effective. Findings clarified common elements across strong programs to include an emphasis on developing the capacities of individual leaders in connection with a district focus on leadership development. It was noted that an emphasis on recruiting and preparing new principals supported a commitment to the role. More investment was placed on collaboration between teachers and other principal colleagues in robust programs

with an emphasis on a cogent approach to teaching and learning, with both practical and theoretical lenses.

For further consideration on principal training and development, Cunningham et al. (2019) investigated the use of powerful learning experiences (PLE) to prepare school leaders more fully for today's problems within principalship. These authors surfaced the relevance of distinguishing between types of knowledge, namely, declarative, procedural, and contextual and advocate the principal learning agenda needs to include all three types. Again, traditional leadership programs typically prioritize declarative knowledge alone. In their study (Cunningham et al., 2019), they identified characteristics of PLE such as reflection, interdependence, meaning, or sense making, collaboration, equity-mindedness, and authentic problems.

Interestingly, Breakspear et al. (2017) advocated for principals who can lead teacher learning through knowledge and understanding of teaching and learning for adults. Features of adult learning, with tools and routines to foster on-going collective efficacy, are articulated as vital to facilitate teacher growth. Jensen et al. (2017) agreed, sharing that the ability to assist teachers through the clear use of adult learning principles, extends to the characteristics of principals' own learning experiences. As such, it seems when principals engage in professional development experiences that embed adult learning approaches for their own learning, they would simultaneously be given the opportunity to understand how principals may, in turn, apply adult learning approaches to teachers in their schools. Such abilities are crucial features of LfL (Daniels et al., 2019) discussed in the prior section on leadership approaches.

So, what are considered principles of adult learning that would support school leaders to be more effective as LfL and support their own professional learning? Knowles (1984)

highlighted specific needs of adult learners, through andragogy, as opposed to pedagogy for children's learning. His definition of andragogy is "the art of science of helping adults learn" (as cited in Loeng, 2018) and encompassed specific assumptions for adult learners. These include 1) adults' developmental stage allows them to be self-directed learners; 2) adults have had diverse experiences to draw on for their learning; 3) adults possess a readiness for learning based on their roles; 4) adults seek to learn for specific problems related to their experiences; 5) adults are internally motivated. Consequently, adult learning principles based on these assumptions mean that adult learning needs to be self-directed, connected to previous learning and experiences, have a practical component, and, finally, address specific problems being experienced (Davis & Leon, 2011; Loeng, 2018; Merriam & Tisdell, 2016). When educators and leaders can co-construct meaning based on their classroom, school, and system contexts, learn and apply practical collaboration skills, while targeting the specific needs of their students, adult learning principles are utilized.

Breakspear (2017) advocated for principles of adult learning to be considered for leadership development, which could potentially be through andragogy. Jeannes (2021) extended this by arguing that an emphasis on growth mindedness is urgent but labels this as an "andragogical mindset" (p. 5) for leaders to engage with others on complex problems that require on-going change in us and others to be able to embrace new ways of leading in turbulent times. Crane et al. (2018) concurred and stressed the importance of developing adults' mental complexity, that is, how they process information and make sense of complex environments. In essence, these authors identified mental complexity as a meaning-making process, in relation to one's identity and the context of one's work. They observe that mental complexity offers an increased ability to be adaptive, generating increased likelihood for success.

Based on the presented research on principal training and development, then, master's degrees are typically required for the principalship in Canada, yet once these leaders are in their roles on-going professional training occurs. Academically oriented learning appears to be insufficient for the dynamic mission of school leaders. Daniels et al. (2019) argued for leadership development to include attention to learning design, to be context-specific and experiential, and to occur within networks. They also advocate for a LfL model to support principals to be effective in their schools. Other researchers emphasized that qualities of adult learning, that is, andragogical principles, would support the mental complexity expansion required. This, too, supports the work of Kegan (1982) and Kegan and Lahey (2009), who promoted adult development for leadership meaning-making identities, critical in adaptive times.

Complex Adaptive Systems

Within AS training, the new sciences literature (Kershner, 2021, Wheatley, 2006) denotes understanding complex adaptive systems (CAS) as applied to social organizations as a foundational concept to help participants in education understand how schools and systems operate (Garmston & Wellman, 2016). CAS are part of what is known as systems thinking; they connect to how one orients in the world, and how one sees the parts of a system in relation to the whole (Senge, 2006; Shaked & Schechter, 2016, 2018). This portion of the literature review provides a historical synthesis of new sciences development along with an exploration of complex systems versus complicated systems. Contextualizing the shifted understanding of the natural world through new science discoveries provides clarity as to why leaders may benefit from comprehending adaptivity, as applied to educational systems, as part of leadership training and their developing identity.

Since 17th century modernism, reductionistic Newtonian images of the world have prevailed. Described as a mechanical, deterministic system, this predictable universe is a place in which matter is conceived as isolated and distinct with linear causes and effects (Akpil & Gunduz, 2016). Over time, these scientific views influenced predominant rational approaches to how the world operates, including the social sciences and organizations. As Wheatley (2006) argued, we have used a Newtonian outlook to govern assumed-to-be solvable work, and organized our organizations grounded in a belief in a predictable world. From her award-winning book on leadership and the new sciences, Wheatley invited leaders to reflect on whether over-detailed planning based on a perceived to be probable world is effective.

At the turn of the 20th century, Einstein's theory of relativity and the discoveries in quantum physics revealed a paradoxical universe, in which order and chaos are qualities of nature (Akpil & Gunduz, 2016). Capra (1983) explained how physicists had difficulty grasping the new reality of atomic phenomena in which the way of thinking about the world was inadequate. The old-world paradigm, that is, a universe comprising of solely distinct, solid "things," began to dissolve, and a world made up of moving energy within webs of relationships emerged. With these discoveries, laws of determinism and predictability in science about the natural world fell and offered the invitation to shift paradigms for leading organizations. Wheatley (2006) articulated this new understanding of the world to be both compatible with interconnectedness and applicable to organizational leadership and urged deeper consideration.

Yet, traditional, outdated cause and effect approaches continue to dominate ways of thinking, participating, and leading organizations (Uhl-Bien et al, 2007). Akpil and Gunduz (2016) agreed, believing leaders are skeptical and resist new science views. Fidan and Balci (2017) added that the increasing change in educational contexts prompts questions about the

reliability of strategic planning, stating it is unreasonable to make short- or long-term plans. Unsurprisingly, they believe that school principals would be unsuccessful when tackling challenges with these old methods. Alternatively, administrators could identify intentions rather than specific action plans and be more successful (Akpil & Gunduz, 2016). Being informed about schools as complex systems, rather than as mechanistic machines, might be viewed as urgent for school leaders to grasp in connection to their identity and how they could express leadership to stimulate and frame change in schools.

To fully understand the broad concept of complex systems, contrasting and distinguishing between simple and complicated systems is helpful. While both systems include rules, a simple system is much more elementary (Keshavarz et al, 2010). For example, a simple system is akin to the procedure for a recipe for baking muffins. Guided by the steps and method, muffins will emerge the same each time, assuming one has all the ingredients, and the oven is in working order. Yet, a complicated system requires additional advanced, precise, and expert steps; rather than baking treats, it is comparable to sending a rocket to the moon or performing brain surgery. Cuban (2010) described complicated system tasks to “require engineer-designed blueprints, step-by-step algorithms,” that includes highly developed expertise (para. 3). He also noted that complicated systems coincide with hierarchical organizations for clear policy implementation. In support, Garmston and Wellman (2016) explained that complicated scenarios are linear, with direct cause-and-effect reasoning, with work seen as specific with certain outcomes.

In contrast, complex systems are non-linear, unpredictable, and not only include times of order, but also times of chaos. Moreover, combining the various parts of a complex system and the results will differ each time. As an example, consider weather systems as they are consistently impacted by variables such as wind, precipitation, and temperature (Garmston &

Wellman, 2013). Cuban (2010) described complex systems as “web-like independent and interdependent relationships” in which “change, conflict, and unplanned changes occur all the time” (para. 13). A practical outcome, he argued, regarding grasping complicated versus complex realities, is to respond to change differently, since difficulties arise when leaders apply complicated approaches to complex systems. Comprehending what this means when principals navigate change during times of adaptivity might be relevant for these essential leaders.

When leaders understand the uniqueness of complexity, the ability to lead and intervene effectively might change. That is, as leaders do the pressing work of guiding change, new concepts, and new ways of seeing their organizations, no longer embedded in the industrial age, may influence what they perceive. Further, since understanding concepts can inform what one perceives, then when one sees new things, one may think new thoughts, and potentially do new things (Garmston & Wellman, 2013). Consequently, for educational leaders to navigate uncertainty in their schools, discerning aspects and principles of complex systems appears to be justified and needs elaboration.

The conceptualization of the complexity science term “complex adaptive system” (CAS), (Uhl-Bien et al. 2007, p. 299), is aptly defined as “an interdependent network of interacting elements that learns and evolves in adapting to an ever-shifting context” (Kershner & McQuillan, 2016, p. 22). To provide more explanation, other features of CAS will now be described with the emphasis on recognizing educational systems, such as schools, as examples of CAS, which relates to leadership training that is part of the AS training.

Fidan and Balci (2017) highlighted the work of the Santa Fe Institute, established in 1984, as committed to the exploration of complexity from an interdisciplinary approach. They argued that in CAS, the rich, diverse, and connected universe makes it impossible to fathom the

world as simply mechanistic. Although they recognized that some historical understandings of the world can be maintained, the broader perspective of how the world operates includes elaborate interrelationships, patterns, and principles. In essence, the whole is considered more than the sum of its parts (Boal & Schultz, 2007; Garmston & Wellman, 2013).

Within CAS, “aggregates” (groups) of, “agents” (people) interact on different levels, to create repeated patterns of behaviour called “attractors” -or “influences” (Boal & Schultz, 2007; Gilstraf, 2005; Kershner & McQuillan, 2016). Interactions amongst aggregates of agents move between stability and the edge of chaos (Boal & Schultz, 2007). Wheatley (2006) described this “basin of attraction,” to reveal hidden boundaries and possibilities within the system itself (p. 118). Further, various kinds of attractors exist, depending on the level of equilibrium or chaos in the CAS, such as point, periodic point, and periodic (Gilstrap, 2005), which may create superficial, temporary, negative, or positive tendencies in a system (Kershner & McQuillan, 2016). Gilstrap (2005) provided more clarity regarding the nature of these attractors in a system. For instance, he described the most basic, point attractor, as one that has a clear trajectory to an end point, such as a book that drops to the floor. He proceeded to portray the periodic point attractor as one that moves in a predictable orbit every time, such as a repeated event. Next, he explained periodic attractors as somewhat more complex, with predictable paths, with small adjustments, such as shifting syllabi slightly at the onset of a new academic year. Each of these attractor patterns supports equilibrium in a CAS.

The most interesting tendency, to enlighten change in educational CAS, is that of the “strange attractor” (Gilstrap, 2005, p. 58). Notably, these attractor patterns, over time, never occur in the same way, but emerge slightly differently, depending on the contextual circumstances, and “act as magnetic forces that draw complex adaptive systems towards given

trajectories" (Gilstrap, 2005, p.58). While the other attractors may return the CAS to the status quo, the strange attractors may promote the context for more lasting change.

School leaders who apply the CAS concept of strange attractors to their systems not only might recognize how a disruption in a school, stemming from either external or internal origins, can prompt change, they also may realize it is insufficient for lasting change to occur. Kershner and McQuillan (2016) shared that to create enduring change, systems need to surrender the reassurance of the status quo, and utilize the power of adaptivity. They suggested that schools adopt new, strange attractor behavior patterns through positive networks of relationships, decentralizing decisions, and creating a common school culture of collective values and beliefs to guide actions. In support, Gilstrap (2005) advocated for the use of shared visions and team processes to support strange attractor patterns in a system. They (Glistrap, 2005; Keshner & McQuillan, 2016) reminded leaders of the priority to release the need for goals and objectives and create the setting for creativity to emerge amongst teachers. In this way, the specificity of applying CAS to school leadership is promoted, with a focus on change efforts.

At this point, a description of CAS has been explored since it is a core concept of AS training. There is a need for principals to relinquish outdated, traditional leadership methods since such approaches can no longer foster the changes in education so desperately needed (Breakspear et al., 2017). The new sciences literature highlighted the interconnected world and how leaders may benefit from an understanding of CAS to help them cultivate creativity and co-construction of new possibilities amongst educators. Principals who comprehend CAS may be better equipped to respond to complex educational challenges.

An Overview of Adaptive Schools

The developers of AS, Garmston and Wellman (Thinking Collaborative, 2019), and their twenty years of work with educators around the world, provide guidance on the ways leaders can successfully build the identities, knowledge, and skills to create more productive and effective groups, schools, and systems. While there has not been a great deal of research on AS, the comprehensive knowledge base and theoretical lenses in areas such as systems thinking, cognitive psychology, evolutionary biology, and complexity science, for example, greatly inform the training. However, while the AS training has a clear curriculum, an adaptive school is "neither a place, nor a program, neither a leader, nor a structure" (Garmston & Wellman, 2016, p. 3). Through AS training, leaders learn to apply ways of seeing with the intention to create thriving schools and systems, amidst on-going change. The training is designed to support systems to move away from traditional modes of educational delivery and everyone has a role to play in that endeavor.

Although Garmston and Wellman (Thinking Collaborative, 2019) recognize that each school or system has unique challenges related to culture and context, they explain, "there are social patterns that are easily recognizable when people gather in groups to work together" (p. 6). They provide practical tools and foundational principles to help schools develop into strong cultures that can address not only the challenges of today, but also for the uncertainty of the future (Thinking Collaborative, 2019). For the purposes of this review, an overview of the AS training framework, combined with core concepts and how these relate to identity, will be outlined first. See Figure 1. Next, to provide a rationale for why principals might benefit from understanding adaptivity, an essential concept of AS, an exploration into the complex adaptive systems theoretical framework will follow.

CAS and The Adaptive Schools Framework

Garmston and Wellman (2013, 2016) promote five principles of non-linear, adaptive systems in the AS training, aligned with CAS. During the AS training participants are introduced to these principles, to increase their understanding of how CAS in schools and systems work, that is, as interconnected relationships in which co-construction of shared understanding and decision-making is vital. The awareness of these AS and CAS principles might strengthen principals' ability to lead, collaborate, and interact with others more effectively, in their schools, particularly during times of change. These principles are:

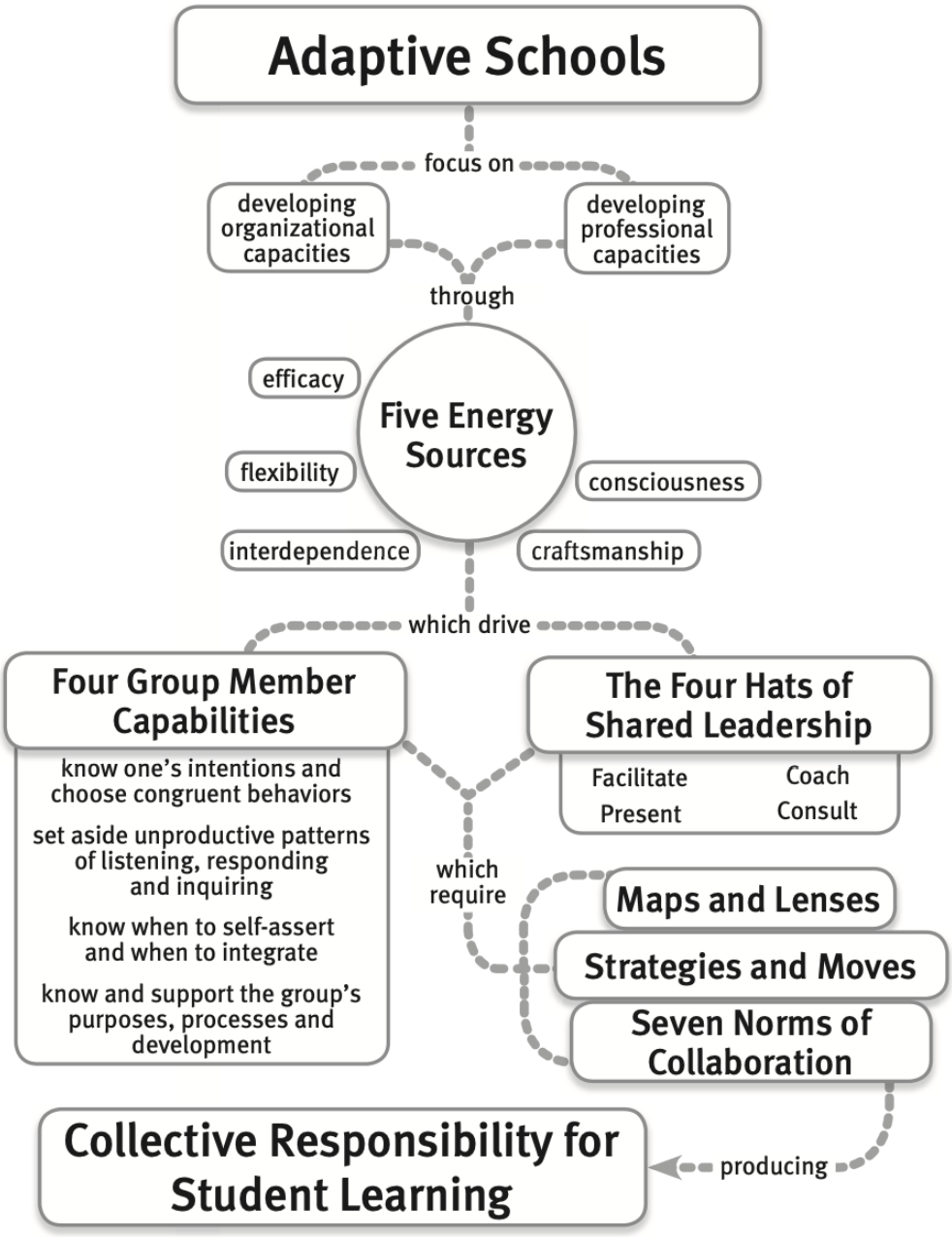
1. More data do not lead to better predictions.

   Schools can become "data rich and information poor" should endless surveys, assessments, and test scores accumulate without the skills, time, or attention given for teachers to co-construct meaning from the data, their experiences, and knowledge. How we talk about data is essential (Garmston & Wellman, 2013, 2016).

2. Everything influences everything else.

   The example of Malcolm McLean, who created the concept of shipping containers to transport goods from ships to trains, to trucks, illustrates how an idea can have a pervasive impact, in this case, on big box store shopping. The containers reduced the cost of shipping and need for storage and increased real estate prices along the coasts as a result. Applying this principle to schools, this impacts how educators feel about their work affecting school culture, as well as student learning (Garmston & Wellman, 2013, 2016). In essence, the work in schools occurs in open systems that influence every aspect of what gets done (Turner et al., 2018).

Figure 1: *A depiction of the core elements of Adaptive Schools training*



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3. Tiny events create major disturbances.

The onset of Covid-19 and its impact on the world illustrates an immediate reference to comprehend the meaning implied in this principle. More precisely, the origins of a

flu overseas in China in December 2019, may be considered a small event. Yet the disturbances have been pernicious worldwide. In collaborative groups, one might recognize how a team member who thoughtfully paraphrases deepen the work of the entire group, and perhaps the school (Garmston & Wellman, 2013, 2016).

4. You don't have to touch everyone to make a difference.

   Again, McLean did not need to create big box containers around the world and engage policy makers about his concept. Yet gradually his concept took over the movement of goods on a global scale. An individual's choices can have far-reaching impacts (Garmston & Wellman, 2013, 2016).

5. Both things and energy matter.

   Schools need the resources for teaching, whether this be environments for learning, furniture, technology, or books. Yet, "the energy of caring and committed teachers moves minds and produces learning." The quality of relationships matters (Garmston & Wellman, 2013, p. 10).

Garmston and Wellman's (2013, 2016) principles of CAS align with an understanding of web-like inter-relationships that allow for emergence, creativity, and shared ownership. These principles appear not only to stress the importance of relationships and trust, as well as the importance of each person having a leadership role to play in a system, but also bring to the fore the assumption embedded regarding quality conversations. These conversations may probe into the deeper meanings of teacher practice, student learning, or relevant policies.

When both formal and informal leaders grasp the features of CAS and the five aforementioned principles, collaborative and leadership choices may shift; with intention, they may extend and refine their repertoire of skills, their knowledge, and perhaps their very

identities. Put another way, when leaders approach their work having internalized a view of the world as interconnected and shaped by strange attractors, their stance in the world may no longer be as director or manager, but one who facilitates co-constructed emergence. Foreseeably, each posture originates from a different way of being, yet necessarily is accompanied by corresponding identity, beliefs, and values (Garmston & Wellman, 2013, 2016).

Figure 1 depicts a graphic of the core elements of the AS framework. It shows the work highlights both the development of organizational capacities and professional capacities (Thinking Collaborative, 2019, p. 12). The realization of these two areas can occur by groups fostering awareness, skills, and knowledge of the five energy sources. These five energy sources are:

1) Efficacy: a group's belief that it can carry out the intended work.
2) Flexibility: a group's ability to adjust and change based on the situations and contexts it finds itself in.
3) Craftsmanship: a group's ability to continually learn and improve the quality of its work.
4) Consciousness: a group's recognition and awareness of its decisions and actions and ability to reflect in response.
5) Interdependence: a group's recognition of its connectivity to larger networks and valuing each person's contribution in that network (Thinking Collaborative, 2019, p. 65).

Next, these energy sources are considered to influence group member capabilities and the four hats of leadership, that is, facilitating, consulting, coaching, and presenting (Garmston & Wellman, 2013, 2016). Each hat serves a different purpose and need in a group, depending on

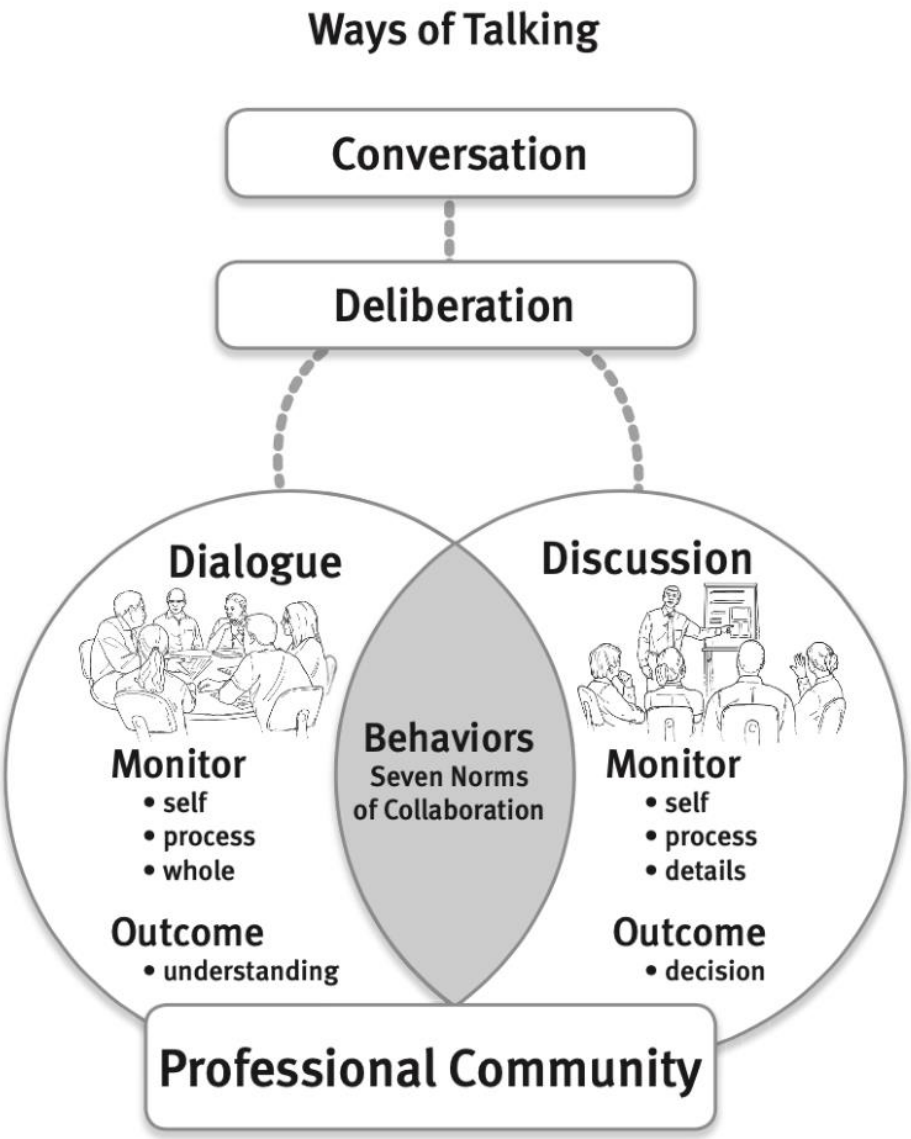
the situation so that individuals more intentionally engage with others. Tools that promote the development of shared leadership include maps and lenses; strategies and moves; and the seven norms of collaboration (Garmston & Wellman, 2013, 2016).

An example of maps and lenses that guide collaborative work is the deliberate use of dialogue and discussion (See Figure 2). These two forms of talking have different purposes: where dialogue focuses on building shared understanding on topics or issues, discussion leads to collective decision-making. Garmston and Wellman (2013, 2016) relay that what topics of conversation and how groups participate in conversation is a statement about who they are, how they see themselves, and how they wish they were. When groups have awareness about different pathways to guide deliberate conversations, their ability to navigate important and difficult issues is believed to improve. More specifically, within AS, two ways of talking are distinguished between dialogue and discussion, both serving different conversational purposes. Figure 2 depicts the two ways of talking in relation to the norms of collaboration (Thinking Collaborative, 2019).

Dialogue originates from the Greek words *dia*, meaning “through,” and *logos*, meaning “word” (Thinking Collaborative, 2019, p. 30). Through words, individuals create meaning by sharing underlying beliefs, assumptions and values. As a result, when groups are in dialogue, deep listening becomes a critical skill. In this form of speaking and listening, the goal is that a sense of safety emerges for open expression of thoughts and feelings without fear of judgement. In contrast, discussion offers examination and weighing of different options and alternative points of view. Discussion, from the Latin root *discutere*, means “to shake apart” (Thinking Collaborative, 2019, p. 30). Groups can explore different perspectives and origins of issues to have a better understanding of possible options that can influence effective group decisions. In

fact, when groups engage in dialogue to first build shared understanding on an issue, the tendency is for decisions made during discussions to be long-lasting.

Figure 2: *A depiction of the two ways of talking*



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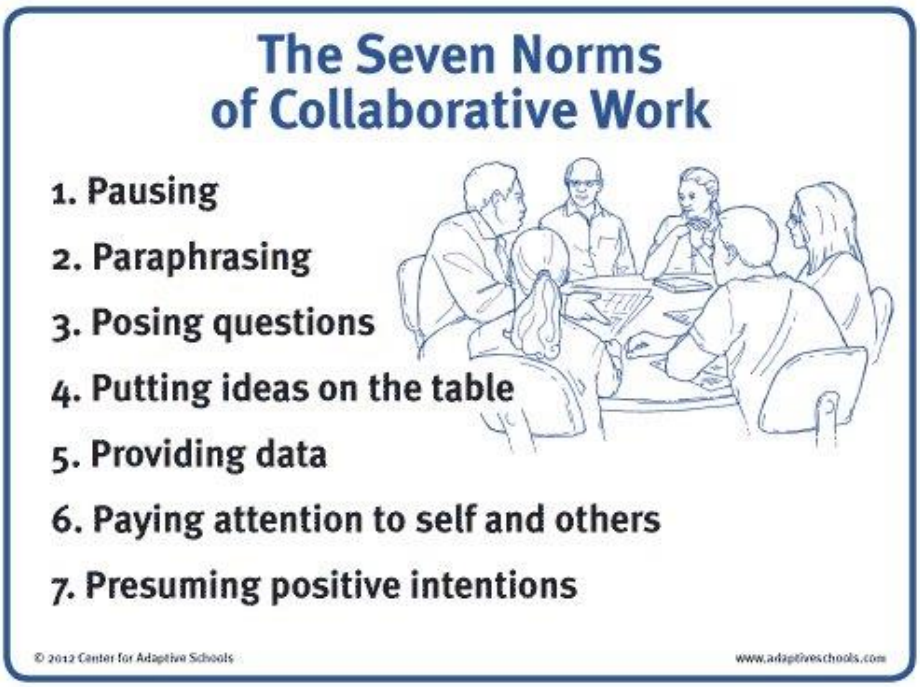
According to AS, when groups engage in collaboration, whether they deliberately choose to participate in dialogue or discussion, they also have a set of skills that can dramatically influence how the work gets done (Garmston & Wellman, 2016). These skills are the seven norms of collaboration, which are embedded in all group work and central to effective collaboration; they comprise pausing, paraphrasing, posing questions, putting ideas on the table, providing data, paying attention to self and others, and presuming positive intentions (see Figure 3). The use of the norms, in conjunction with explicit teaching and practice, attempt to support educators in becoming skilled at intervening in meetings with increasing poignancy. The hope is enhanced group development as individual group members become more conscious of and skillful with these norms (Garmston & Wellman, 2013, 2016).

Figure 3: *AS Norms of Collaboration*



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In connection to the AS training and its influence on leadership identity, the focus of this study, it is essential to describe and consider Dilts' (2014) work. He developed a learning model

in the form of nested levels that is used and extended in the AS training (see Figure 4). Dilts' (2014) model is an intervention tool to promote an understanding of identity as essential in leadership development (Dilts as cited in Garmston & Wellman, 2016, p. 143). Dilts (2014) utilized the work of Bateson (1972) to formulate a cascading model of learning, to illustrate how one's identity holds the most dominant place of influence, since it informs all the other levels, or elements, of learning (Costa & Garmston, 2016; Garmston & Wellman, 2013, 2016). The levels of learning in the model fit into each other, as nested, from identity to values and beliefs, to capabilities, to behaviour and skills, to the environment. To clarify, the first level is one's identity based on experiences and knowledge, it influences the next level nested inside, that is, beliefs and values, by providing the guideposts for what one holds as true. Second, beliefs and values in turn influence the subsequent nested level, that is, capabilities, which refers to the internal metacognitive maps one uses. Third, capabilities in turn influence the next nested level of behaviours and skills, such as choices and decisions. Finally, behaviours and skills in turn influence the innermost level, the environment or context, in which one participates. In this learning model, one's individual or collective identity is recognized as the most influential level in learning and leading, and is introduced in the AS Advanced Seminar. Figure 4 depicts Dilts' Nested Levels of Learning model.

Figure 4: *A depiction of Dilts' (2014) Nested levels of Learning*

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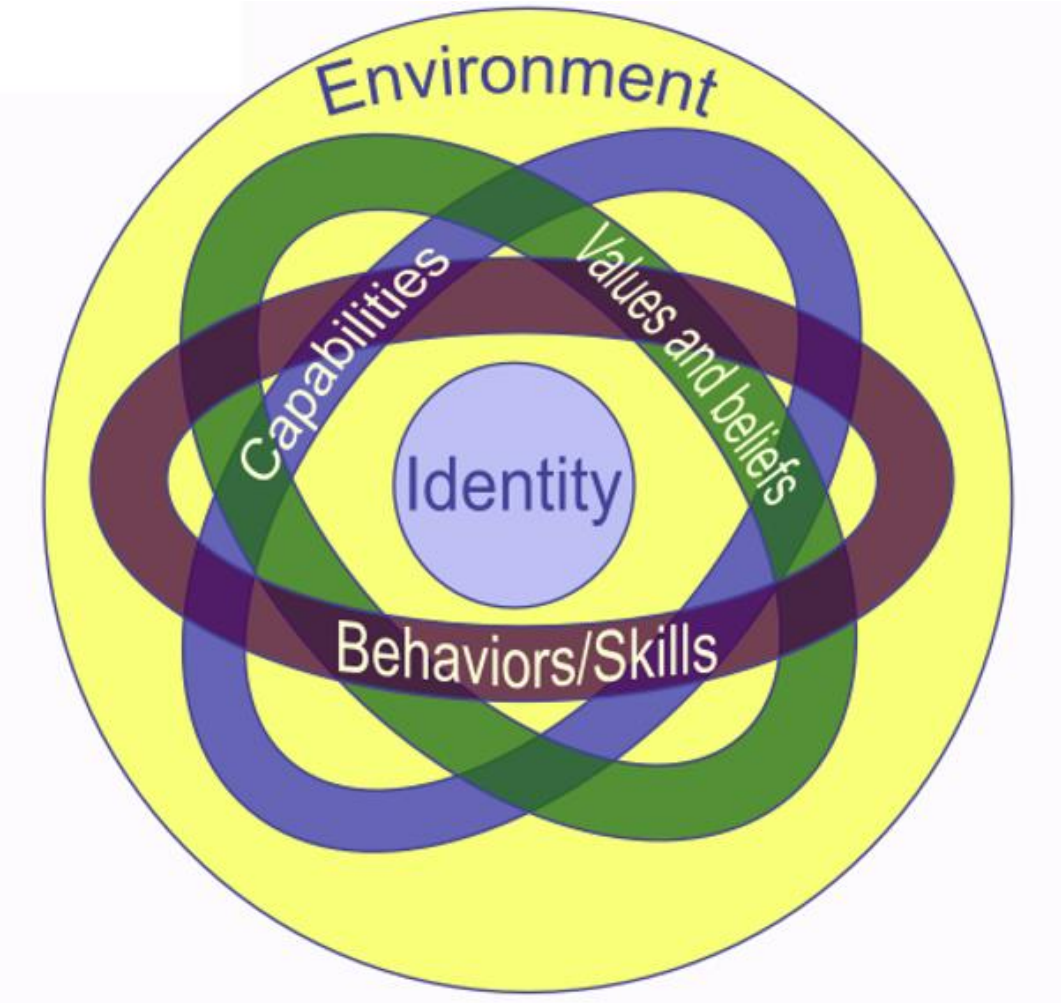
Garmston and Wellman (2013, 2016), while in agreement with Dilts' (2014) regarding the emphasis on the centrality of identity, recognize how the nested model appears to be linear in nature. Thus, they prefer to continue to include one's identity as most influential in leadership, but place the other levels, beliefs, values, assumptions, capabilities, and behaviours, as interacting domains, that occur in various environments or contexts (Costa & Garmston, 2016; Garmston & Wellman, 2013, 2016). They believe that the model shown in Figure 5 makes clearer the complex, interacting, and non-linear nature of individual and collective capacity. Figure 5 depicts their Leadership Identity Model.

AS training invites everyone to consider their leadership identity. For instance, on day one of the Foundation Seminar, the concept of adaptivity is introduced to participants in connection to various roles in an educational system. To illustrate this for those

Figure 5: *A depiction of Garmston and Wellman's (2016) Leadership Identity Model*



Used with permission from Garmston & Wellman (2021).

taking the seminar, AS facilitators review the role of teacher librarians with participants as one example of adaptivity. In the past, the primary tasks for librarians involved providing resources, typically books and learning guides, in paper form, for students and educators, as well as stocking library shelves. As students and teachers began to make more use of online sources, the traditional role of librarians started diminishing, and many felt devalued (Garmston & Wellman,

2013, 2016). Today, given the ubiquitous nature of technology that has become part of libraries, sometimes labelled learning commons spaces (Moreillon, 2017), librarians have needed to shift their role and responsibilities, alongside their identity, not solely to see themselves as providing resources, but also to see themselves as supporting students and educators to understand what would be considered *quality* online resources. Thus, librarians' identity has shifted from being 'providers of resources' to being 'teachers of quality filtering' to ensure students and teachers know *how* to find quality resources (Garmston & Wellman, 2013, p. 4).

As described in Chapter One, both the Foundations and Advanced Seminars gradually build participants' understanding of the concepts introduced, provide opportunities for practicing new skills, nurture professional community through networks, and prompt consideration of learning applications beyond the training. Both seminars use a clear intentional design throughout. The first day of the Foundation seminar includes a focus on the seminar goal and via inclusion activities relationships are fostered. To address the learning outcomes, consistent shifts, from whole group to individual reflection time occur (Thinking Collaborative, 2019). The concept of identity is elucidated from day one. In brief, the seminars are experiential in nature, with consideration given to a triple-track agenda that highlights tasks, processes, and group development, to comprehend in an authentic way, what is meant by high performing groups.

Outcomes for the AS Foundations Seminar include understanding research findings on professional learning communities, understanding the "what, why and how of becoming adaptive" (Thinking Collaborative, 2019, p. 17), while structures for collaborative conversations are provided, modelled, and practiced. Additionally, the norms of collaboration are introduced with regular opportunities for rehearsal; structures for successful meetings and decision-making strategies are taught and modelled. Outcomes for the Advanced Seminar include extending and

developing group members' capabilities, and expanding understanding of educator identities as collaborator, inquirers, and leaders. Improving ways for participants to embrace cognitive conflict is another key outcome (Thinking Collaborative, 2019).

In summary, the AS training framework and core concepts, which especially relate to identity, have been outlined thus far with an overview of the seminars described. The five energy sources for productive groups - efficacy, flexibility, craftsmanship, consciousness, and interdependence - and the two ways of talking, dialogue and discussion, were reviewed. Finally, Dilts' (2014) Nested Levels of Learning was explained to help deepen an understanding of the core relevance of one's identity as a leader, within the AS training.

Summary of Chapter Two

Keeping in mind the focus of this study is to explore the influence of Adaptive Schools (AS) training on principals' leadership identity, this literature review described research related to principal work intensification, leadership identity, leadership models, principal training and development, complex adaptive systems, and AS training. The review showed that leadership identity is an emerging research topic and importantly noted as a capacity precursor and requirement for leadership effectiveness (Crow et al., 2017). Principal work intensification was revealed as significantly challenging for these leaders as they navigate their changing role (ATA, 2014), increasing work volume and complexity (Pollock et al., 2015), and need for developing adaptive leadership approaches (Drago-Severson & Maslin-Ostrowski, 2018). Literature emphasized specific leadership models, namely, distributed, instructional, transformational, and transformative were emphasized in the literature (Hambrick Hitt & Tucker, 2016), and a Leader for Learning, integrated model surfaced as key for today's school leaders (Daniels et al., 2019; Fullan & Sun, 2012). Principal training and development were identified as needing dedicated

attention to cultivate the leadership changes necessary for today's principals (BCPVPA, 2020; Breakspear et al., 2017). The review examined CAS because the concept is central in the AS training. Further, it was noted that leaders' understanding of CAS characteristics can contribute to leading in new ways beyond the status quo (Kershner & McQuillan, 2016). Finally, a summary of the AS training concluded the literature reviewed with a focus on summarizing AS core concepts, such as dialogue and discussion, norms of collaboration, Dilts' (2014) Nested Levels of Learning, and the Leadership Identity Model (Garmston & Wellman, 2013, 2016).

AS training captures the elements of need for principal professional development identified in the literature review. For purposes of this research, the focus is on principal identity, based on an understanding of the intensification and complexity of principal work and built upon the key principles of CAS of non-linearity and complexity. AS is a relevant model for examining training to build identity for school leaders in today's world. Therefore, this study intends to explore AS as an approach for developing principal identity, at a time that Wang (2020) considers a period of deep change for principals. This study seeks to investigate the influence of AS training on the development of principal leadership identity and hopes to contribute to the literature base on professional development. Due to the lack of research on ways to build leadership identity, this study can add to the literature base.

Chapter Three: Methodology

The purpose of this study was both descriptive and explanatory (Babbie, 2004), using a qualitative approach to investigate how participation in Adaptive Schools (AS) training influences the development of principals' leadership identity. Leadership identity is defined as how one engages, how one makes sense of the world, and how one responds to day-to-day tasks and challenges alongside one's beliefs and values (Thinking Collaborative, 2019). Through this thorough exploration, the intention was to provide clarity about how AS concepts, processes, and skills, that are part of the AS training, might contribute to the development of North American principal leadership identity. Due to the emerging interest in principal leadership identity as connected to their role effectiveness (Cruz-Gonzalez et al., 2021), especially at a time of increased volume and complexity (Wang, 2021), this research added understanding to the development of leadership identity.

The specific research question that guided this study is as follows:

1. In what ways have the concepts, processes, and strategies in the Adaptive Schools training been influential in the development of principals' leadership identity?

The related sub-questions are:

i. How does the AS training influence the development of principals' leadership identity specifically as a leader of learning?

ii. How might an understanding of adaptivity and CAS influence principals' leadership identity?

iii. How might the way the AS seminars are presented influence principal learning and leadership

This was not a comparative study of training programs for principal leadership development nor are the results generalizable. No specific outcomes of AS training were calculated. It was, however, a deeper examination into the influence of one program, namely, AS Training, on the development of principals' leadership identity and suggests areas for further research to strengthen principal training and development regarding identity. This chapter outlines the research method including a discussion on the appropriateness of a basic interpretive interview study, sample selection, data collection, data analysis, validity and reliability, positionality of the researcher and study limitations. It is important to note that involving human subjects in research required an application to the Institutional Review Board (IRB) prior to the onset of formal research.

Design of the Study

Exploring the influences of AS training on leadership identity required a qualitative approach and descriptive research design since the investigation delved into principals lived, subjective experiences and perceptions of themselves in relation to their leadership settings in schools (Holley & Harris, 2019). With a desire to hear and understand what principals have to say, a quantitative study was not suitable since the goal was to determine nuances of and explore the details about principals' beliefs and expressions. More precisely, what principals relayed about the influence of AS training on their leadership identity would be difficult to quantify with any thorough understanding. The study did not explore cause-and-effect or make predictions, which are characteristics of quantitative data (Merriam & Tisdell, 2015). Patton (1985) explained that qualitative research originates from "an effort to understand situations in their uniqueness as part of a particular context" (p.1), befitting for principals' identity influences in response to AS training.

Diverse ways occur for conducting qualitative research, reflective of the specific understanding researchers seek (Holley & Harris, 2019). For this study, it was key to explain the type of qualitative study to be utilized to further delineate the research design. To that end, this exploration followed the most common form of qualitative research, namely, a basic interpretive interview study, because constructivism underpinned the data to be collected for interpretation (Merriam, 2009). The meaning and elucidation principals described about their evolving leadership identity in response to the AS training, revealed that a phenomenological approach also informed this basic interpretative interview study. Phenomenology is described as originating from "the idea that people interpret everyday experiences from the perspective of the meaning it has for them" (Merriam, 2019, p. 37). Hence, it was aptly applied to principals in this research because they shared personal information about their leadership identity, in essence, how they defined themselves, in on-going interactions with others through their work and through the AS training.

Selection of Participants

The criteria for selection of participants were current North American school principals or recent principals within the last four years who have taken the Adaptive Schools Foundations and Advanced Seminars, to determine how the AS training influenced the development of their leadership identity. As a result, purposive sampling was used, since the participants belonged to a clear, defined group (O'Leary & Hunt, 2016), and the research aimed "to discover, understand, and gain insight" (Merriam & Tisdell, 2015, p. 96) from their responses. While the research that stems from the purpose of this study was not generalizable or representative of all school principals (Holley & Harris, 2019), a rich investigation and deeper dive into their perceptions,

thoughts, and feelings in response to taking the AS seminars occurred. Twelve participants were selected to generate information-rich data through semi-structured interviews.

To gain access to potential principals to participate, I communicated with Thinking Collaborative Co-Directors and Training Associates, who oversee the Adaptive Schools training and lead the AS seminars in their jurisdictions. These AS leaders are well connected to the Thinking Collaborative community and are in the process of reaching out to potential participants. They provided contact information to invite involvement in the study. While Thinking Collaborative does not keep data on the roles of those who participate in the seminars, they have relationships with potential candidates, which assisted in considering participants.

However, regarding supplementary criteria for potential participants, this study sought diverse perspectives from the group of school principals who have taken the AS training. As such, sample selection prioritized the diversity of principals for the interviews. Consideration was given to those who were 1) at various points in their career; 2) either male or female; 3) worked in rural, urban, or suburban schools; and 4) worked in elementary, blended, or secondary schools. Five of the participants were principals within the last four years. Prior to data collection, participants who responded to the invitation to participate were sent a document to sign for informed consent (see Appendix 2).

Data Collection

As the only researcher in this investigation, I was the instrument for data collection. The data were collected through semi-structured interviews, with a protocol that guided the questioning (see Appendix 3), allowing for the researcher to pivot and follow what emerged in the conversation (O'Leary & Hunt, 2016). Galleta and Cross (2013) provided support for planning semi-structured interviews by highlighting that "what the participant narrates and how

that narrative unfolds inform the remaining segments of the interview" (p. 72). The following questions guided the interviews:

1. Please share a little bit about yourself (career path, family, current role).
2. Please share your prior training to become a principal and your professional development as a principal.
3. How might you describe yourself as a leader?
4. What things have influenced you as a leader?
5. When you think about leadership identity, what does this mean to you?
6. Why did you participate in the AS Foundation Seminar? Why did you participate in the second one?
7. What were your initial thoughts, feelings, and reactions to your experience of the AS seminars?
8. How have the seminars been helpful to you? How have they not been helpful?
9. Are there things you learned that you use in your leadership role in schools?
10. In what ways, if any, did the learning about adaptivity and complex systems influence your learning and leadership identity?
11. In what ways, if any, did learning about dialogue and discussion processes influence your learning and leadership identity?
12. In what ways, if any, did the learning of skills influence your leadership identity? (i.e., norms of collaboration, group member capabilities, energy sources)?
13. How influential, if at all, would you say the training has been on your leadership identity? How do you know?

14. In what ways, if any, would you say the way the training was delivered contributed to your learning and leadership identity?
15. What advice would you give to strengthen the training?

Each interview was arranged via email. Each interview was scheduled in advance and a brief overview of the focus of the interview was provided. The questions were shared in at least a few days in advance with each participant to give the opportunity for reflection prior to the interview. Each participant was invited to engage in one semi-structured interview duration approximately one hour through Zoom. Permission was sought to record the sessions. Most of the interviews were just over an hour long.

The style of semi-structured interviewing requires some rehearsal, to become acquainted with this flexible approach, and to ensure the questions in the protocol are clear and do indeed elicit the types of responses needed to inform the research questions (Merriam & Tisdell, 2016; O'Leary & Hunt, 2016). Galletta and Cross (2013) advised that the questions should unfold in a way that thoughtfully leads the interviewee to fully reflect on the topic of interest. With these suggestions in mind, a pilot study was warranted and was conducted prior to the formal start to the research. One practice semi-structured interview allowed me to experience the interview process. I was reminded through the process of the pilot interview the importance of listening carefully, paraphrasing to check for understanding, and following up with clarifying questions if needed. In addition, a panel of experts reviewed the questions as part of the proposal defense prior to engaging in the interviews.

To ensure participants understood their responses would be protected, the process was described for careful storage of data as well as using pseudonyms (Galletta & Cross, 2013). Consequently, data collected were stored in a locked filing cabinet in my home office.

Participants were invited to identify a pseudonym for themselves if desired, which is part of the interview protocol (see Appendix 3). In using direct quotations in the research findings, care was taken that selections do not share specific revealing characteristics of the participants.

Data Analysis

The deeper process of making sense of what was expressed by the participants in the interviews involved data analysis (Holley & Harris, 2019). Having said that, data analysis was already initiated through the data collection process, but being dynamic and iterative, it simultaneously required thought and intention to avoid data overwhelm (Merriam & Tisdell, 2015). This section describes the plans for researcher notes, reflection, transcribing, coding, and theming, grounded on what experts relayed on how to conduct qualitative research data analysis successfully (Galletta & Cross, 2013; Holley & Harris, 2019; Linneberg & Korsgaard, 2018; Merriam & Tisdell, 2015).

Utilizing Braun and Clarke's (2006) ideas, the foundational and flexible process of thematic analysis was emphasized. Over and above that, the data analysis followed Braun and Clarke's (2006) six steps for identifying themes 1) become familiar with the data throughout the process; 2) create preliminary codes; 3) seek initial themes based on codes; 4) review the themes in relation to the codes extracted as well to the whole data set; 5) label the themes clearly in connection to their meaning and definition; and 6) write a report that tells the story of the data, with potent examples in response to the research questions.

Prior to each interview, I reminded myself of the purpose of my study by reviewing my research questions and ensuring I wasn't rushed (Merriam & Tisdell, 2015). During each interview, I focused on listening that allowed for thoughtful pivots and questioning that strove for specificity and clarification; minimal note-taking ocurred. Once the interview is completed, I

spent time immediately afterwards, reflecting on initial hunches, ideas, and impressions. I attended to the content of what had been communicated but also to the subtler, more nuanced expressions (Galletta & Cross, 2013). With every consecutive interview, I contemplated the previous interview, considering emerging patterns to update ongoing hunches and potential questioning pivots. I completed all the interviews, transcribed them, and then began the coding process.

Coding is explained in simplest terms as the "operation of identifying segments of meaning in your data and labeling them with a code" (Linneberg & Korsgaard, 2018, p. 260). The code could be a word or phrase that represents the summary or essence of meaning of the data (Saldana, 2015). For each interview, every transcription was uploaded in the Dedoose software program and analyzed line by line, highlighting key ideas that were articulated in the interview. With these highlighted parts, codes emerged that related to the research questions. After each subsequent interview, this same process was followed, adjusting the codes, to fit with the recursive coherent-making process of qualitative research. Some codes became stronger and more substantial with each interview (Galletta & Cross, 2013).

Throughout, memos were used to ensure a record was kept to track thoughts and observations along the way (Braun & Clarke, 2006). In the end, labelled codes referred to data collected from the interviews, notes after each interview, and memos as part of the analysis (Galletta & Cross, 2013; Merriam and Tisdell, 2015).

Galletta and Cross (2013) summarize the process this way:

> The language of the participants, often stark and vibrant in meaning, powerfully conveys dimensions of their experiences as they relate to the topic of your research. Expressions, symbolic language, images, understandings, ideas, stories, and emotions are central to the

> analysis, starting out singularly from one interview and gathering conceptual strength as they reappear in other interviews and data sources. (p. 125)

As the codes were consolidated and strengthened, themes from the study emerged (Merriam & Tisdell, 2015). Through the identification of themes, the constant reference point was always the purpose of this study in answering the research questions.

Trustworthiness

Merriam and Tisdell (2015) articulated that trustworthiness in research "is concerned with producing valid and reliable knowledge in an ethical manner" (p. 237). To that end, trustworthiness is paramount in all studies especially when the results are applied in professional contexts and could impact people's lives. Regarding this interpretive qualitative inquiry, attending to validity and reliability means this study did not seek a single, fixed truth, but instead an understanding of what the principals interviewed tried to convey (Holley & Harris, 2019). In essence, this means methods were followed as intended and the interpretations accurately represented what was expressed by the participants. The following describes how the research ensured that trustworthy results transpired.

Member-checking is appropriate for validation to assess theme resonance from the interviewees and to support trustworthiness of the data (Birt et al., 2016; Galletta & Cross, 2013; Holley & Harris, 2019). As a result, each interviewee was contacted to share the transcripts and clarify any misunderstandings and to hear their reactions to and thoughts about the codes, themes, and findings that surfaced. Based on their responses, it allowed for adjustment and clarifications to deepen understanding of what was illuminated in the data. Chapter Four introduced participants and uses direct quotes to illustrate their authentic voices and support the thoughts, feelings, and views that emerged through the interviews.

Data saturation, another strategy the researcher upheld for internal validity, refer to the point at which engaging in more data collection no longer elicited any further new understandings (Holley & Harris, 2019; Merriam & Tisdell, 2015). Each interview brought unique perspectives. Nevertheless, the study attended to the stage when the same themes kept emerging and little new ideas surfaced. Holley & Harris (2019) maintained that data saturation is not always as obvious as one may think, but in this study saturation occurred.

Researcher Positionality and Assumptions

My experiences, identity, and view of the world influenced how I interpreted this study. As a current principal of an elementary school, a former AS participant, as well as an Agency Trainer who can facilitate the Adaptive Schools Foundation Seminar for Comox Valley Schools, I was attentive to my positionality as I engaged in the research, since my bias was always present during the research "like a garment that cannot be removed" (Peshkin, 1988, p. 17). It is key to relay that I have an in-depth understanding of the AS training, which utilizes the concepts, processes, and skills that I learned through engaging in the training and through the learning track of becoming an Agency Trainer in this work. While my passionate interest in AS training led me to a simultaneous interest in pursuing doctoral learning (Holley & Harris, 2019), I do possess a bias for AS. My partiality may be, as a result, a limitation to this study. Nevertheless, with mindfulness of my bias for the AS work, I was especially cognizant of member-checking and asking open-ended questions in a way that the participants felt they could truly express their views candidly (Holley & Harris, 2019). I worked to remain aware of and open to the unexpected that can emerge in participant responses.

Merriam and Tisdell (2015) prompted researchers regarding their critical role in relation to whether one is an insider or an outsider. For this study, I am considered an insider in the AS

work, that is, one who has participated in the AS training and is a current school principal. As such, I needed to continually wrestle with how to avoid undue influence in the research process. With attentiveness, I engaged in an on-going manner with this question: How might I promote the context for participants to feel comfortable expressing their views, should they be in contrast to my own? Such on-going self-inquiry involved being reflexive which means I consciously acknowledged that I not only influenced the research but also was influenced by it. Being reflexive is not only my inner state but also the choices I make in the moment (Probst & Berensen as cited in Merriam & Tisdell, 201 p. 65). In brief, as a researcher, I was openly available to what the participants relayed, both the expected and the unexpected.

Limitations of Study

While this research adds to the literature base on leadership identity, potential limitations exist in all research. In this study, it is noted that all 12 North American principals who participated volunteered to be involved. While they do represent different contexts and school levels, all came to the study with enthusiasm about the AS training. This group of principals, then, may represent principals who are characterized by an affinity for this kind of training to begin with. To clarify, this study may represent principals who have a particular style or approach to leadership that more readily aligns with what the AS training provides. Therefore, other principals, less enthusiastic about the AS training, with different leadership styles, may have responded differently.

It is important to note the lack of diversity represented in the sample of participants. Purposeful sampling was used to select research participants and all participants matched the study criteria, yet those who responded to the study invitation, were mostly White females. Only three males and only one Black individual participated. There may be a selection bias in which

the results of this study do not represent the findings for other genders or racial groups which is a limitation.

Furthermore, this research study size is a small representation of school principals. The exploration into the influence of AS training on principals' leadership identities through the in-depth interviews of 12 principals allowed for rich responses and themes to emerge typical of qualitative studies. However, the results cannot be generalizable to all North American principals.

Chapter Four: The Interviewees

In this chapter, a description of each of the participants is provided to inform the understanding of principal leadership identity, which is the focus of this study in relation to the influence of Adaptive Schools (AS) training. Having a fuller picture of each participant through learning about their career journey and the ways they understand themselves as a principal leader, is helpful to contextualize the themes that emerged. Semi-structured interviews encouraged participants to share about themselves. The open-ended nature of the questions gave them the choice to share what they wanted about their families, career journey, and leadership identity.

Twelve North American school principals were interviewed, with five being in Canada and seven in the United States. To protect confidentiality, the specific provinces, or states in which they work are not included in the details. Eleven principals were White, and one described herself as African American. Three identified as male, and the rest as female. Participants represented elementary, secondary, and blended schools, such as a school from kindergarten through grade ten. One principal worked in a rural school, four principals worked in suburban schools, and seven principals worked in urban schools. Note that each participant was given a pseudonym, apart from one who self-chose theirs. Please refer to Table 1 for a summary of participant information and demographics.

Greta

Greta, a White female, is currently a Canadian secondary school principal in the latter portion of her educational career. She is married with grown up children and three grandchildren. After she became a teacher and taught for a few years, she was off work for 12 years, by choice,

to focus on raising her children. Once the children were old enough, she returned to teaching, even though it was challenging to obtain a job then.

Table 1:

Principal Demographics

Participant	Country	Gender	Race	Age Range	Years P	Years VP	Years in Ed	School Level	School Area
Ella	Canada	Female	White	56-65	21	3	34	Elem	Urban
Finn	USA	Male	White	46-55	15			Elem	Urban
Iris	Canada	Female	White	46-55	7	3	10	Elem	Urban
Amanda	USA	Female	Black	36-45	18	3	26	Elem	Urban
Diana	USA	Female	White	46-55	6	2	30	Primary	Suburban
Juliette	Canada	Female	White	46-55	10	5	32	Sec	Urban
Bruce	USA	Male	White	46-55	3	0	24	K-12	Urban
Heidi	USA	Female	White	46-55	6	7	25	Elem	Suburban
Greta	Canada	Female	White	56-65	5	9	26	Sec	Suburban
Brenda	USA	Female	White	36-45	3	6	16	K-10	Rural
Krystal	Canada	Female	White	56-65	8	8	34	Elem	Urban
Cale	USA	Male	White	46-55	6	0	26	Prim	Suburban

Note: P = Principal; VP = Vice Principal; Ed = Education; Elem = Elementary School; Sec = Secondary School; Prim = Primary School

At that time, Greta decided to take a course for credit at a nearby university, in what was seen as the very first online course on Netscape 1.0. While “a horrible course,” Greta nevertheless learned a great deal. After completing her course evaluation, the professor reached out to her, noting she was in education, and invited her to help improve the course. An

opportunity to support the development of e-learning, it opened doors for her at the school level. Eventually, a consultancy position opened in the district technology department, and she was the successful candidate. She could see the potential of where education was headed and explained that she learned, "just by experience, and probably not with high consciousness, what it meant to be adaptive."

Greta continued with her learning after five years by earning her principal papers. Greta was quickly hired as a vice principal and was in this role for nine years in two different suburban secondary schools. In May of 2016, she was assigned her first principalship, also in a suburban secondary school.

While Greta was a vice principal, she had been engaging in AS training and Cognitive Coaching training, also offered by Thinking Collaborative. When she received the new principal role, she saw AS as a normal aspect of her leadership because she had been developing her understanding of AS and applying what she was doing for nine years already. Greta explained that the new position was at an awkward time of year, in a school with problems. She reflected,

> That's when I, with even more deliberate consciousness, plotted my course and said, "Alright, this is an adaptive situation for all of us. What do I need to know about facilitating groups, belonging to groups, creating vision, creating common understandings? What assumptions might I encounter?" . . . All that Adaptive Schools stuff became literally my toolkit in a really conscious way. It was my toolkit already, but I remember actually taking my guides and . . . landing on some of those diagrams that we use so effectively . . . and just saying, "What do I need to be mindful of? How can I unite this staff?

Greta was the principal there for nearly four years. Next Greta was assigned to another secondary school in January 2020 when the principal retired. Greta currently leads there.

When asked how she would describe herself as a leader, she explained that when she started in education 30 years ago, her identity was, "attached to an old-fashioned identity of educators as being people of power . . . My identity now . . . is a person who empowers." She saw this as a huge identity shift and noted, "it was the Adaptive Schools work and the Cognitive Coaching work, that most equipped me to make that shift…as we know in that work identity is everything." Greta continued to describe how her language has changed to align with her identity. Previously she would say to students,

> 'I want you to do this. I will give you a deadline, you must submit.' Listen to the language, you must submit to me your assignment, and then I will grade it, and I will give you back a mark . . . I don't talk like that anymore. I don't use the word submit, I use words like, 'As you think about your learning plan this year, what things are coming to mind?' 'As an experienced educator, what hunches do you have about what's your next best step?' I'm always in the zone now of empowering.

Greta viewed her current leadership style to be aligned with 21st century needs and identified the influence of AS, alongside Cognitive Coaching, on her identity, as "transformational. . . it's something that's part of my ethos . . . I live and breathe it every day."

While an "empower-er," Greta utilizes her:

> positional authority to get stuff done . . . On occasion, I do really difficult things like deal with misbehaviours, both staff and students. But I do everything possible on that horizontal, shared leadership, distributed leadership, empowerment stance, to prevent those unfortunate situations from happening in the first place.

With such a leadership approach, she endeavors to invite teacher department heads to foster the same kind of leadership "to equip their own teams to be effective in the classroom."

Brenda

Brenda, a White female, has 16 years of experience in education, with six years as an assistant principal, and three years as a principal. She currently leads in a pre-kindergarten to grade eight school in a rural American school district, with approximately 500 students. Her teaching experience initially focused on special education but then she taught in a regular classroom setting when she pleaded with the principal to give her the opportunity. She has experience teaching in both elementary and middle schools. Through her internship to earn her credentials for administration, she gained familiarity with the secondary level, too.

Brenda's experience as an educator was primarily in a nearby district that is larger than the one she is currently working in; she moved to be closer to her parents. She is married with two children, one of whom has special needs. In her leadership, a core value for Brenda is to "search for the whole child" and to prioritize special education. This means she is committed to finding ways to close learning gaps for every student. Brenda firmly believes "that there is a direct correlation . . . in the expectations we set for students" and the success they experience. Her passion is wanting "every child to succeed in some way." She is proud of being known for welcoming students with Individual Education Plans to her open enrollment school. "I get . . . a lot of . . . students with IEPs because we're just…able to work with them and meet their needs."

When Brenda was pursing leadership learning in her former district, she successfully applied to participate in the leadership academy there, which provided "all kinds of professional development and training that led us to being ready for the principal role." Adaptive Schools,

Cognitive Coaching, Data Driven Dialogue, and Crucial Conversations were some of the programs she engaged in, and she is "super thankful for that opportunity."

Brenda mentioned that taking the AS Foundations Seminar was a requirement for all assistant principals in her district. She thinks having the training before she became a principal was key for her success, because "it really helped me get my feet off the ground as a principal, knowing the norms of collaboration, really learning how to listen and seek first to understand, not to be understood." The current school she came to as principal "is a tough place" and has had five different principals in six years. Now in her third year there, she feels she has "made it," and continues to work on developing the culture.

Brenda is a leader who is "firm, but fair," and knows where she can bend and where she can't, since student needs are the central focus to guide decisions. Brenda is "consistent" and believes "in high expectations." While she is "not a micromanager," she does believe "what gets watched, gets done." She prioritizes relationships with everyone and aspires "to be out with the people" rather than working in her office.

Brenda stated that AS and the learning provided to her "changed who I am as a leader." She explained that

> As a teacher, and really, as a leader, I was one that always [thought], 'we're here to do a job. And when you're on the clock, you got to get the job done. And that's all we're doing.' I shifted from that person to a person that really builds off relationships and seeing people transform when you have that relationship with them. And the buy in and all the things that come with it because if I hadn't had the training that I had, all of it, then I would have come in and wrecked this place real fast because I would have just been a

> bull in a china cabinet to get it where it needs to be . . . I would have failed miserably at my first principalship if I had not had these experiences.

When Brenda notes further about the influence of the AS on her leadership identity, she expressed that her leadership has become much more "collaborative."

Finn

Finn is a White American male in mid-career who works as a principal of an urban elementary school. This pre-k to grade six school "has been ranked as high as the third most diverse school in the country." The school is in a low-income area and has had "the lowest test scores in the school district." Although a relatively small school of about 300 students, there have been up to 14 languages spoken. Finn has been the principal for 15 years.

Finn began his career in education late, first working in restaurants and in the tourism industry. He heard a story about "two guys sitting on a barstool complaining about the kids in education" and how after five years they continued to have the same conversation - the message being to "get off your tush and go do something." Finn decided then to become a teacher. His focus has always been "to walk through doors and windows as they open up" and "I found myself in a principalship."

When asked about how he would describe himself as a leader, Finn explained that his leadership style has changed a lot over the years. While his style then wasn't necessarily "combative," he does recognize he was focused on how to implement district provided training that was "very mechanical, in terms of delivery, very prescriptive . . . the technical aspects of the work, as opposed to the adaptive." When sharing what influenced the changes in his leadership, he refers to "a lot of hard knocks, the annual gut punches with low test scores" and "going

through those cycles over and over again and really experiencing the treadmill where we didn't seem to be getting anywhere, despite a lot of effort."

Finn took time to describe "a big step in his career" after he had been engaging in the Adaptive Schools training, when one of the school directors visited him and told him, "I can't protect you anymore. Your test scores are in the dumps." Finn relayed,

> by this time, I'd already been engaged with Adaptive schools and was beginning to open up my view of how things can go. And my response was, "Well, no, I'm not going to toe the line . . . I've got nothing for it. I think what I'm going to do is take the things I've learned about people and engagement and growing an organization and put those in place and see what happens because when I've tried it your way, this is what I get, I get kicked in the gut. If I'm going to go down, if you're going to can me, because I'm ineffective, I'm at least going to be kicked to the curb, because of my own stuff. I'm not going to have you dictate to me what to do, and then tell me I didn't do it well enough . . . So that was really a big thing, to be able to claim my space as an educator and really become a leader, instead of a manager, to become someone who could really lead an organization to a new place, presumably a better place than to just simply deliver the goods that someone else created somewhere else. And so that was part of the growth. And I think that had a lot to do with my exposure to Adaptive schools.

When Finn was invited to a state leadership school, he was introduced to the Adaptive Schools training and believes it was "really transformative to get some voices outside of the group." He noted the different and diverse ideas helped open him up to alternative leadership choices. He believes that the AS training was "just what he needed."

Finn's leadership today is much more focused on supporting and promoting growth in others: "I am very much interested in the definition of leader as a conduit of growth to try and draw people out, really trying to take them from where they're at to a higher place." Finn is committed to not being micromanager, but to "empower the people I work with, staff, students and their families to engage their brains and to think creatively." When asked about his leadership identity and what that meant to him, he articulated "it means putting my ego aside . . . a metaphor would be a farmer planting seeds and putting all your energy to grow and making sure that those seeds grow."

Krystal

Krystal, a White female, brings a wealth of experience as a Canadian educator for 34 years, with 24 of those years as a school administrator. Krystal obtained her teaching certificate after completing her four-year degree and headed straight to teaching. However, she immediately continued learning through a fifth year in education with a "mindset around learning, while you're working." Krystal has pursued further formal education throughout her career and obtained a master's degree in educational administration and a doctorate in transformational change. She has been a teacher, vice principal, and principal at the elementary level, and for the last four years has been a District Principal of Learning, in the third largest urban district in the province. She sees ongoing learning as "central . . . to keep me interested and passionate about what I do."

When Krystal reflected on the "pivotal pieces" in her learning, she realized that she is one who "soaked up everything" through reading books and attending workshops. She recalled that one influential course on conflict resolution, negotiation, and anger management was "probably one of the best things I ever did." The course gave her the skills to maintain positive

relationships though difficult issues that arose in leadership. She noted the influence of mentors along her career path who were role models, who nurtured and believed in her.

When asked how she would describe herself as a leader, she used words such as "creative," "adaptive," "principled," and "authentic." She included that she has the "courage to be vulnerable." Later when asked about what leadership identity meant to her, she explained that thinking about leadership identity has been a long journey. She saw it as "that confluence of your values, your beliefs, your principles, your preferences, like your style, your learning style, how you are with people." It was important to Krystal to explain that one's leadership identity relates to one's weaknesses and triggers that can come through during times of stress. Being triggered, she noted, provides an opportunity to raise one's awareness, to avoid impacting others negatively. Krystal shared that she finds archetypes to be meaningful to consider in her leadership. She explained that some archetypes have served her well because at times "you need to conjure up another one for something you need, to call upon a bit of warrior in you, so that you can show up in a way that stands for something."

Krystal was clear in her interview that she already had a leadership identity prior to engaging in the Adaptive Schools training, but that it nevertheless strengthened her leadership identity since it clarified the *how* of leadership. She noted that she valued the theoretical understandings of leadership she gained through her doctorate, but that "it didn't tell you how to enact your work." As a result, she chose to pursue further learning in Cognitive Coaching, Adaptive Schools, and Solutions Focused Coaching. She relayed that the skills she learned through these kinds of trainings "are the skills of enacting that work…to be able to create those collaborative cultures and co-create your work and facilitate learning and facilitate processes that

really give you the suite of tools that I think move cultures forward." Krystal summarized that "such a broad tool kit for communication helps us do hard things."

Cale

Cale, an American White male, is a principal of an elementary school from kindergarten to grade three in a suburban area. He has been married for 25 years and has two children. Cale began as a fourth-grade teacher for 14 years and moved on to teaching sixth grade in a middle school with an emphasis on computer literacy. He was involved in providing technology support for the school at that time. After three years, he became the technology coordinator for the district.

During a conversation with a retiring principal, Cale mentioned he would like to be a principal but did not have the principal license to do so even though he did have a master's degree. Due to voicing his interest, he discovered he could become a principal through "an alternative pathway to licensure. It's a three-year process. You work through your whole department of education and your district." Cale followed this track, involving coursework, mentorship, and an administrative test. With over 26 years in education, he has been a principal for six years, and has never been an assistant principal.

Cale values learning and is someone who tries "to apply knowledge…as quickly as I can so that it becomes part of my way of being." Cale also likes "to read professional literature." He mentioned various authors that have influenced him, such as Todd Whitaker, Brené Brown, Barbara Sher, and Atul Gawande. He readily referred to these authors to illustrate what he was conveying, to clarify who he is and how he leads. He joked that his staff tease him by saying, "Let me guess? You read it in a book?" whenever his opening tagline is, "Oh, I'm reading this book and . . ." He believes their teasing reflects the nature of their relationship, since "they feel

comfortable enough with you. They don't feel like that there's going to be any retribution." Cale values building relationships and sees it "as one of our primary, most effective tools."

When asked about what leadership identity means to him, his initial response was "it means . . . taking Dilts and understanding Dilts" (Robert Dilts' model Nested Levels of Learning, 2014). He shared that he "thought long and hard during [the] AS seminars" about the importance of leadership identity. He acknowledged his different roles and how each connects to his identity. He saw leadership identity as different from his identity in other roles, for example, as a husband and father. He explained that as he responds to various authors and learning along the way, he makes on-going meaning. Cale perceives constructivism as central to how he has formed his identity.

Cale knows that at the core it is essential for him to be responsive to others and what they may need to be effective in their work. He sees himself as "a transformative leader," who endeavors to empower others, but also to encourage growth. He added that he strives to be a non-directive collaborative leader who can be more directive if the situation calls for it. Cale knows the AS training has influenced his leadership identity because he uses it and refers to it every day.

Juliette

Juliette is in her 32nd year in education and is a White female. Working in a large, Canadian, urban school district, she has been a secondary school principal for 10 years and a vice principal for 6 years. Juliette can't believe she has already been married to her husband for 33 years. She shared she has three grown children, two daughters, and a son.

Juliette has a background degree in kinesiology. She began her teaching career in high school, teaching physical education and science, leading to a position as a department head. She

eventually “became a curriculum consultant for the board with a focus on health and physical education.” In the role, she supported assessment and evaluation and led the work in schools engaged in “action research,” now named “collaborative inquiry.” Once she became a vice principal, she initially led in a “high school with a focus on sport and healthy active living” and later a general secondary school. The last school she was principal, there were more than 1900 students and about 138 staff. All the schools she has worked in have been large.

Currently, Juliette is in her fourth year as the District Principal of Leadership and Learning, responsible for system level learning including supporting all new principals and vice-principals with professional learning. Recently, with the pandemic, she has had to go into schools in the absence of a principal. She values these experiences since she believes it is important to gain clarity and to be informed about what is happening at the ground level in schools. Cognitive Coaching and Adaptive Schools have been part of her learning and leading, and she has offered these trainings in her system.

Juliette sees leadership identity to be about the three central questions in AS, namely, “Who am I? Why am I doing this? Why am I doing this this way?” She sees the importance of “what do I believe in, and how can I move a school, a group, and now a system, forward?” Juliette referred to the AS model with “identity in the middle, then capabilities, values, beliefs, behaviour, skills, and environment . . . they all affect each other.”

When she described her leadership identity, Juliette used words such as “adaptive,” “collaborative,” “approachable,” “authentic,” and “a life-long learner.” She added, “I get my hands dirty . . . I lead by doing. I walk the talk.” Juliette shared emphatically that recently she has changed how she understands leadership identity and is much more “equity-focused.” This change is due to an emphasis in her system on exploring racial equity and the evidence that “the

Black students in our classrooms . . . are not being served." At this time, Juliette is "heavily involved in equity training . . . and engaged in . . . how to facilitate equity conversations." Juliette has increased her consciousness of how her identity as a White, heterosexual female may impact others.

Amanda

Amanda, a female, and the only African American participant in this study, is serving as an elementary school principal in the United States. She has been in education for 26 years, which includes teaching for five years, being an assistant principal for three years, and a principal for 18 years. She earned a master's in elementary education and a doctorate in educational leadership. Amanda has been married for 20 years, and they have two children, "a rising senior and a rising sophomore."

Amanda shared that school administration "kind of fell into my lap," and because she did not do a master's in administration, she had a "lateral entry" into the principalship. When she was a teacher, she was pursuing her doctorate in elementary curriculum. At the time the current principal of the school she worked at prompted her to pursue educational leadership instead "because it is a little more flexible . . . and by the way, you should be my assistant principal . . . you should apply." With her doctorate and two years of coursework, she was able to become a principal. Once she was a principal, she didn't have any specific training that she found made a difference to her, except for the AS training and recent equity training. Both, she believes, had a positive impact on her leadership.

Amanda was required to take the AS Foundations Seminar because "it was a district wide leadership training for all principals." The training was promoted with the ideas that "this can help you be more efficient in your meeting . . . How can you, as the leader, the instructional

leader, run your meetings more efficiently? How can you be more aware of why things work the way they do and how you just better run things?" She relayed that "I rarely enjoy some trainings that are provided to district leaders," but found this one "made things more relevant." Amanda further mentioned the need "to be very open minded about it. You have to be willing to accept what Adaptive Schools, what it talks about, what its ideas are." Amanda pursued the AS Advanced Seminar because she wanted to and valued the training.

For Amanda, leadership identity is about "who you are as a leader. What's your style? What's the culture you cultivate in a building?" Amanda described herself as an "adaptive leader," who sees herself as "a leader who just changes with the current times." She believes this is important for leaders to "know that times change in 2021. And some of us act like it's still the 1800s." She values being "up-to-date and current and responsive to the times, to the students' needs, staff needs." When Amanda reflected on the influence of the training on her leadership identity, she says that the AS resonated for her and "put into words and clarified my identity." In particular, Amanda believes learning about adaptivity "validated my leadership identity. It almost gave me meaning to who I was becoming."

Iris

As a Canadian White female and an elementary school principal, Iris has 20 years of experience in education, 10 years as a teacher, three years as a vice principal, and seven years as a principal. Her teaching experience is in grade three to five and at the middle school level. Her current role is in a "high needs" school with a lot of "generational trauma," in a medium-sized urban district.

Significant influences for Iris' leadership identity have been working in situations that were negative, in which she thought, "This is not how I would ever do this." When describing

her leadership identity, she mentioned "Collaboration is a key part of who I am . . . I'm a team builder for sure . . . It's important to me to listen and to work with groups." Building teams and having consensus on decisions is important "with a focus on what's best for kids," even though in the end she realizes she makes the final decisions. Iris loves people, enjoys a challenge, likes "working together," and is "not a micromanager."

As someone who loves to learn, Iris attended the Adaptive Schools seminar and thought the material was "excellent." The thing that she valued was "I could see it working for my staff . . . but also in a classroom." Iris initially chose to work with a teacher to bring the AS strategies more explicitly to the classroom. At the time, Iris was in her first principalship, a small school of about 15 staff. When interviewing the students, Iris discovered it was difficult for the students to identify areas of learning interest. The students were "very well-behaved" but "they weren't thinkers, they were doers." The two educators wondered how to apply the AS work to inquiry-based learning to help students learn "to question and to collaborate." The students practiced using collaborative norms and utilizing specific question prompts in their learning. Iris described this as "interesting," "motivating," and "amazing" and wished "we invested in all teachers taking this training, and how to actually apply it to classrooms."

When asked about her initial reaction to the AS Seminars she said she "was pretty all in pretty quick. When you can see some of the practicality of something, I think it really helps. It moves organizations forward…it also opens classrooms and opens thinking."

Heidi

Heidi was beginning her retirement at the time of the interview after an educational career of 25 years. She is a White, American female who began as a middle school science teacher. Currently, Heidi added, she and her husband "are in that adaptive role of shifting

back…[to] life before kids" since they have two boys, 18 and 20 years old, no longer living at home.

After teaching middle school, she was involved in staff development in technology and assisted in starting the district's online high school. With encouragement from a mentor, Heidi pursued an administration degree. This led to Heidi being an assistant principal for seven years at the elementary level. Following that, Heidi was a principal of a school from kindergarten to grade eight and then she was a principal of a school from kindergarten to grade five. Recently, she "ended up being demoted," which "actually . . . led me choosing to retire." Heidi mentioned the AS training "wasn't understood" in her system and how "sometimes it felt like I was from another land." She explained that the teachers and system leaders did not understand the process she used to engage the staff in a collective decision, which was a difficult time.

Heidi has earned a bachelor's degree, a master's degree in secondary education, and then pursued the requirements to complete her principal licensure. While she identifies her strengths to be "learning and growing," she has been dissatisfied with the professional learning offered in her own district. As a committed learner, she has been "independently driven." Heidi has trained in Cognitive Coaching and Adaptive Schools and used this work in her leadership, but "there really wasn't a way to share or . . . bring back the [learning] into the system. So, you were really on your own."

Heidi initially pursued the training because "the [seminar] description appealed to me." She found the training came along when she needed it, as did mentors "who would be willing and brave to provide the feedback to help me grow and reflect." Heidi appreciated the AS training because she worked in a system where feedback was "lacking." As she continued to participate in the AS training, "my assistant principal and instructional coach [came] with me."

Heidi felt “excited” and truly valued having “a team to collaborate with, because until that point, I felt like I was always alone in this knowledge and understanding.” Once the three of them were trained, they trained the school in AS, due to Heidi’s efforts to “really be a high-functioning organization.”

For Heidi, engaging in the Cognitive Coaching and Adaptive Schools training made her feel like she “found her people.” She added that “there are some things that I know, but don’t always have the language for. It’s kind of like, yeah, that makes sense.” Heidi agreed that the trainings gave her language and clarity to deepen her leadership identity, helping her through “some really tough things.” She found it particularly trying when she left the school to be principal of the kindergarten to grade five school, since she lost the collaborative leadership team and was the sole administrator.

When describing herself as a leader, Heidi made clear that her “greatest value is . . . building the conditions for others to grow and be successful, whether that’s students or staff.” She used the phrases “shared leadership” and “building capacity” to describe her leadership emphasis. Heidi saw that her impact came from helping teachers and staff “to be more successful,” which would in turn “help students to be more successful.” She articulated that she saw leadership identity as “really knowing…who you are, what you believe in, what you stand for, and then aligning your actions.”

Heidi communicated that when she reflected on the influence of Adaptive Schools training on her leadership identity, she found it difficult to “isolate the Adaptive Schools Foundations . . . and Advanced Seminars, because I feel like so much of this is kind of Thinking Collaborative . . . There’s that constant identity as an organization of learning and growing and adapting [that] is a large influence on me.” When asked how influential AS has been on her

leadership identity, Heidi again highlighted the whole organization and mentioned “it had a significant impact on all aspects of my job.” Heidi is unclear how other principals do the job without it. She contended that “there’s so many things that I think about in the work that I did, that I could directly point back to where it originated somewhere in Thinking Collaborative.”

Ella

Ella is a White, Canadian female with 34 years in education, including 21 years as a principal and three years as a vice principal. Ella has been a principal in a very large school district, in a variety of schools, both urban and rural, in “some very challenging schools.” Although she retired two years ago, she continues to be “very much a practicing principal, just for shorter periods of time.” Additionally, Ella provides professional development and is a speaker and consultant.

Ella has a bachelor’s degrees in both arts and education, and a master’s degree in curriculum and assessment. She has qualifications in all areas required by her province for administration in schools from kindergarten to grade 12. Ella has training as a Cognitive Coach and has the credentials to be an agency trainer through Thinking Collaborative. Therefore, she can train others in this coaching work in her district without payment. She has followed the same path in Adaptive Schools. Recently Ella has been participating in anti-racist education and “really learning about anti-Black racism and Indigenous Peoples.”

Ella explained her past involvement in leadership development for her district, such as creating, leading, and teaching effective literacy programs. She has worked for the Ministry of Education to “lead . . .administrators in a process of looking at their schools and their classrooms . . . to see if they were meeting the standards of what was deemed by the Ministry as being effective, in order to improve student achievement.” An exciting time for Ella was the

opportunity to open a new school, “because I was able to take a lot of the things that I have learned and apply them.”

More recently, the last school she was principal at, was “very challenging” (poverty, explosive behaviour, addiction in the community). Ella then became interested and involved in Stuart Shanker’s work on self-regulation and became trained. She noted the benefits of all the trainings, in Self-Reg, Cognitive Coaching, and Adaptive Schools. She remarked that she continues to use what she learned even today when she is only in a school for a few months:

> being able to go in and use all of those skills, to build teams, to help people with their stress level . . . to be able to do professional learning in a way that was going to meet their needs because it was done in an approachable, warm, inviting way that wasn’t threatening . . . being able to use those skills [in Cognitive] Coaching, Adaptive Schools, self-regulation to offer professional learning.

When Ella was asked to describe herself as a leader, she responded to the question by highlighting “my strength really is in developing people and seeing the best in them, and then helping them see the best in themselves as well.” She said that “building a team and relationships and connecting with people is where you need to start” and attributed her learning about this to have “come from Adaptive Schools and Cognitive Coaching.” She further noted the importance of “moving the goals ahead to what you need to address” in a school.

When Ella described how the AS training has influenced her leadership identity, she said, “It had a big impact,” but realized she had trouble distinguishing the influence of AS and Cognitive Coaching, “because they were very much connected” and “respectful” approaches with people. Ella mentioned the impact the Thinking Collaborative trainings had on understanding “who I was as a leader, like understanding you think you’re flexible, and you’re

listening skills are awesome . . . then you take these trainings and realize that you're not really flexible at all, and your listening is not good." She realized that both trainings clarified the way she wanted to be as a leader, "to have an impact on people, an influence in a positive way…of support and care, both to the staff and the students." Ella went on to say:

> I really felt that the [Cognitive] Coaching and the Adaptive Schools [trainings] were vehicles that taught me specific skills to do the things that I just knew in my heart that I wanted to do. I'm very thankful for that. I think they both had a huge impact on who I was as a leader, and even looking at the professional learning that I did later, always connecting . . . back to, "Well, that's a coaching conversation," or "Adaptive Schools would fit in perfectly with this learning," and always making those connections . . . it was just [a] foundational piece for me . . .It taught me specific skills about how to take what I felt and make it really happen and be the kind of leader that was courageous and was empathetic and focused on making our learning environment… good for all.

Today when she is facilitating, she shared that "no matter what workshop I'm doing, there's . . . some kind of strategy that comes from Adaptive Schools."

Bruce

Bruce is a White, American male who started his educational career teaching social studies and later taught math, special education, and English as a Second Language (ESL) in a large urban district. He describes himself as a "smiley guy," who is "invested" in his community. Bruce believes that the state he lives in gets a "bad rap" but he "wouldn't want to live anywhere else," because of its "perfect" pace. He was born, raised, educated, and married in the same state. He lives with his wife and two children.

After 10 years as a teacher, Bruce became a school principal. He summarized he has been a building-based administrator for about four years but acknowledged that he often simultaneously had temporary responsibilities at the district level. Bruce clarified that being thrust into various district level administration roles was because "I met a need that they had" with his experience in special education. Bruce recognized his "fairly quick trajectory in light of . . . promotional opportunities" in his system. His responsibilities included leading "services and budgetary needs for our juvenile justice authority in our area." In his current district role, he serves as the Director of Special Services to support the district team with transitions for students with disabilities.

In the district he works in, there was a great deal of involvement in the Thinking Collaborative seminars. His first introduction to AS came during a seminar he attended with 185 other administrators. During that initial seminar, he was invited to attend a lunch with co-founder, Robert Garmston, the other Co-Directors of Thinking Collaborative, and some of his district supervisors. He spoke about how "I had impressed upon some people enough, in terms of my ability to think and process and train and connect with people" that they invited him to pursue further training in both Cognitive Coaching and Adaptive Schools.

Reflecting further on the Adaptive Schools training, Bruce recognized he learned "a ton," and he "loved it." He mentioned "I felt like I could label what I was doing. I could call this something that I understood." Leadership identity is about facilitation for Bruce. But he feels,

> that term, doesn't do it justice because you're facilitating a vision, you're facilitating a structure. We're facilitating other people to help you do that . . . to give people what they need to meet the goals . . .and the vision . . . and really get out of the way . . . because you know they're going to be able to do it because they are self-directed.

Bruce describes himself as a leader who is “approachable, even-keeled, and supportive.” He sees the AS training having a “huge” influence on his leadership identity, although he mentions Cognitive Coaching as influential as well. His stance is as a coach first and then being team oriented. The AS training has influenced his identity as a facilitator to ensure “engaging the audience” is paramount.

Diana

Diana is an American, White female, who is currently an Executive Director of Academic Affairs in a suburban school district. She has been in education for 30 years, with two years as an assistant principal, and six years as a principal. She lives with her husband and daughter, who is “a sophomore in high school” and finding her independence since she is at the point of “driving with some restrictions.”

Diana began her career teaching math at the secondary level, which led to earning a master’s degree in curriculum and instruction. At the time she was “somewhat dissatisfied with teaching because it just felt like I was…transmitting information.” Diana recognized “that’s not…who I am.” She became involved in the work in her district to reform math instruction. As a component of this, she was introduced to Adaptive Schools and Cognitive Coaching training, which “just opened up everything for me.” Due to the training, Diana saw a need for developing people “to learn to think.” She had a desire to “take…a person from where they are, to where they wanted to be” and this idea “just hit home for me. That’s exactly what I wanted to do.” The training led to a position in which she travelled as a full-time professional development provider to build teacher capacity. Diana is now pursuing her doctorate, with a further interest in developing others in her district role.

An influential experience for Diana occurred as a curriculum specialist and was working with a leadership group in a secondary school. The principal and the three assistant principals that worked there impressed her; she describes them as “absolutely amazing.” The school was referred to as “a California campus . . . an open campus . . . that spanned seven city blocks.” What was noteworthy for Diana was how the school administrators continued to remain connected across the buildings. She saw the informal training offered, the attention paid to the big picture, and the focus on “inspiring people versus compliance or micromanaging.” She recalled thinking, “Man, if you could be a principal like this, then I’m in.” The experience of working with these administrators compelled her to pursue principalship.

When asked about how she might describe herself as a leader, Diana articulated how important it is to her to “inspire cooperation.” She fundamentally believes that when people have all the information they need, “they will do the right thing, and that there’s lots of right ways to do something.” From this standpoint, she prioritizes providing sufficient learning and enough information in connection to the big picture so that teachers and principals “make decisions for the ways they want to do things.” Diana prides herself in viewing the people she is responsible for as “individuals . . . to know each one’s needs…to work on each person’s trajectory.” Diana does see this as difficult to do, given the fact she works with about 75 employees. In addition, Diana endeavors to have empathy for others in such a way to consider “what you would do if you were the other person, in the shoes they’re in . . . I have to understand the situation from your point of view.” Diana explained that such a focus on empathy influences her leadership choices.

Diana noticed the influence of AS on her leadership identity when she couldn't facilitate the AS work due to the pandemic. When she did return to it, she realized "it was stuff that was just so ingrained in who I am . . . it is how I operate." She added the AS training

> was transformative because it gave me the language and concepts to do more than transmit knowledge as a math teacher. I was able to have students work together to collaborate in meaningful ways that supported their learning at a deep level. A similar thing happened when I used AS with adults. I was building self-directedness and adults who could solve challenges because they could work together by truly listening and problem resolving. I am finding that even though I have left the building admin-level the building has continued with many of the priorities we established. They own them. It is so wonderful to see.

For Diana, the AS training has become more than strategies, it is "a way of being."

Conclusion

The principals interviewed for this study lead in various districts and areas of North America and possess similarities in their level of experience as leaders in schools, that is, they are predominantly in their middle to late portion of their school leadership career. The participants responded to questions with openness and enthusiasm about their experiences related to the AS training. What follows in the next chapter will be an in-depth discussion of the themes that emerged in connection to the research questions of this study.

Chapter Five: Themes

Introduction

The previous chapter provided information about each interviewee in this study as a participant profile regarding their career journey, work context, leadership influences, and leadership identity. The following chapter outlines and describes the themes that emerged from the collective participant responses. The research questions informed and guided the responses that warranted highlighting and further discussion.

This study explored the influence of Adaptive Schools (AS) training on the development of principals' leadership identity. To be clear, leadership identity is defined to be about one's beliefs and values, the way one constructs meaning and perceives the world, as well as the specific ways one enacts leadership choices. As a result, a discussion of the themes that emerged in relation to how they demonstrated their beliefs and values by decisions made, indicate who they are as leaders, that is, their leadership identity. Hence, a discussion on the choice points these principals made by using the specific AS learning, are outlined in what follows.

The first section of this chapter describes themes about participant reactions to the AS seminars to provide an initial picture of what they found to be beneficial about the training. Second, an exploration into the themes related to how principals used AS concepts, structures, and skills is presented. To clarify, a description of the use of AS meeting skills and structures, namely, norms of collaboration and dialogue and discussion, will occur first, followed by a discussion of the influence of the concept of complex adaptive systems (CAS) on principals' learning and leadership identity. Third, an exploration into the themes about how the AS training influenced participants' leadership identity specifically as a Leader for Learning (LfL) will follow. Fourth, themes connected to the AS seminar delivery and areas for AS training

development will be outlined. Finally, the chapter concludes with a summary of themes about the influence of the AS training on principals' leadership identity.

Table 2:

Words Participants Used to Describe the AS Training

Participant	Applicability	Engaging	Transformative
Ella	foundational practical	riveted invigorating	
Finn	needed	excited fascinating	transformative
Iris	practical useful	eye-opening	game changer
Amanda	relevant applicable	engaging	
Diana	impactful	meaningful	transformative liberating
Juliette	applicable purposeful	inspirational	
Bruce	enriching foundational	energizing	enlightening
Heidi	helpful accessible influential	experiential	
Greta	relevant applicable skill-based practical	engaging	transformative
Brenda	helpful beneficial	interactive	
Krystal		participatory engaging dynamic	powerful
Cale	intentional		powerful significant life-changing

Participants Believe AS Training Was Beneficial

All principals interviewed described positive reactions to both the AS Foundations and Advanced Seminars. Table 2 shows the words principals used to describe their reactions, thoughts, and feelings about the AS training. Based on these words, three key themes emerged illuminating that the principals viewed the AS training as beneficial. For the first theme, most principals perceived the AS Seminars as possessing applicability to their principal leadership role due to the relevance and helpful quality of the training. Second, most principals used words to denote the engaging nature of the AS training, such as "invigorating" and "interactive." Third, seven principals expressed words that depict a transformative aspect of the AS training. The next portion will describe in more detail these three sub-themes.

The AS Training Is Helpful and Applicable

One clear idea 10 participants expressed was the helpful and relevant nature of the AS training. They acknowledged how they developed understanding, clarity, and confidence about what actions to take to prepare intentionally for meetings, such as what approach would be most appropriate when they considered their staff members' needs. For example, Greta explained that she felt she was better equipped to "understand more clearly . . . the function of something I'm going to do." She gained an understanding of the background and reasons why she might do something in a meeting, "being really, really highly conscious of the strategy and purpose" of her choices and plans because of the AS learning.

In addition, principals mentioned how helpful all the resources were as a reference when they planned and applied the AS training to their meetings. Amanda mentioned that it was "most powerful" for her to be able to look at the protocols prior to a meeting. If she was trying to "brainstorm," "get feedback," or "give everybody a voice," she could access the resources from

the training to help her be intentional in planning. Cale summed up by saying the AS resources "are very well designed and jam packed…transferable to so many situations." In brief, principals could access what Brenda called "the laundry list of strategies" from the AS training to help them enact their leadership.

The AS Training Is Engaging

Most principals used words and accounts to highlight the engaging element of the AS training, which included words like "invigorating," "experiential," and "meaningful." It was clear that the AS seminars were not presented in lengthy, lecture formats, but were "participatory," contributing to the personally involving quality of the training. Ella shared that when she reflected on her AS learning, she could still picture herself there talking with others. She recalls how she immediately wanted to apply what she had learned to her school setting and found it to be "remarkable" how the AS training days unfolded. Krystal summarized the engaging nature of the seminars by saying there was a need "to authentically participate" highlighting that the AS seminars required individuals to be fully present as they learned. It appears that the design of the AS training cultivated principals to actively construct meaning due to the focus on active engagement in the learning. This may have further prompted their individual motivation to apply what they had learned to the settings they led in.

The AS Training Has a Transformative Aspect

Just over half of the participants found the AS training to have a transformative quality to their leadership. Three principals used the specific word "transformative" to describe their reactions to the AS training. Others used words that related to transformation such as "life-changing" or "enlightening." In support, when Finn shared the influence of the AS training, he acknowledged how the experience was "transformative" in two ways. He first recognized that

participating allowed him “to get some voices outside of the group I was in . . . and be able to hear some diverse ideas about education.” This influenced Finn by having the opportunity to hear “different perspectives” which he said, “really opened me up.” He also articulated that when he started to apply what he was learning in response to the AS training, such as listening to understand others and prompt their deeper thinking, it was “transformative” since it was such a contrast to how he typically led from a “top-down delivery” stance. Diana agreed and emphatically identified the transformative impact of the training; it changed how she chose to teach and to lead, that is, from a hierarchical position to one who fostered learning in others, for students and adults:

> AS was transformative because it gave me the language and concepts to do more than transmit knowledge as a math teacher. I was able to have students work together to collaborate in meaningful ways that supported their learning at a deep level. A similar thing happened when I used AS with adults. I was building self-directedness and adults who could solve challenges because they could work together by truly listening and problem resolving.

In sum, all principals used affirmative words to explain their reactions which revealed a unified view that the AS training was beneficial for them. The principals not only articulated the engaging nature of the AS seminars that allowed each to personally construct meaning but also expressed the applicability of the AS training to their leadership. Some mentioned a transformative leadership element in response to their AS learning, that contributed to a shift in how some saw their learning, saw their leadership role, and saw the connection between the two – to promote and engage others in learning opportunities to construct meaning.

Participants Used AS Concepts, Structures, and Skills

The participants were invited to answer questions during semi-structured interviews designed to elicit responses about how they used AS concepts, structures, and skills in their leadership role. Their responses connect to the research question: In what ways have the concepts, structures, and skills in the AS training been influential in the development of principals' leadership identity? One clear theme emerged about how the principals planned, utilized, valued, and perceived meetings with teachers and with principal peers in connection to AS concepts specifically related to meeting structures and skills. This theme will be discussed first in the section that follows. Two sub-themes in relation to the AS concepts, structures, and skills in meetings will be outlined as well, namely, (1) norms of collaboration; and (2) dialogue and discussion. Finally, principals' understanding of the concept of adaptivity, and perceiving schools as complex adaptive systems and how this influenced their leadership identity was a theme that will be outlined to conclude this portion of the chapter.

Participants Utilize AS Meeting Structures and Standards. Before describing principal responses to how they utilized AS meetings, I offer a brief explanation about the AS meeting structures taught during the AS training to support an understanding of the themes revealed. Specifically, AS structures for successful meetings include 1) an understanding that successful meetings are more influenced by the use of collaborative norms by the group, than by the facilitator's skills and knowledge, 2) the quality of the relationships within the group influence the results that are produced, 3) high-performing groups utilize the five energy sources of interdependence, consciousness, flexibility, craftsmanship, and efficacy, as the "self-organizing values for every group and every meeting" (Thinking Collaborative, 2019). The AS structures or "system of order and organization" for AS informed meetings are 1) **decide on**

decision-making, by clarifying the process, 2) **develop standards** by ensuring one process is used, with one topic at a time, with balanced participation, with clear meeting roles, and with productive cognitive conflict, 3) **design the surround** by attending to the environment of the meeting and setting up the space intentionally with seating, tables, and visual aids (Thinking Collaborative, 2017).

Every participant referred to how they used the AS training in running meetings, whether in teams, as a school staff, in district meetings, or in parent meetings. Brenda, Finn, Amanda, Ella, and Krystal, for example, relayed how they were intentional in planning their staff meetings based on what they learned in AS training. Amanda shared that every time there was a scheduled meeting, she would decide with her assistant principal the process they would be using to promote participation, describing this to be "powerful." Krystal initially used what she learned in the seminars to focus her plans on "how am I going to make my meetings very productive?" and later considered how to plan for distributing leadership in meetings for others to facilitate. Ella committed to "starting out every staff meeting with inclusion and having conversations with people using small fires," which is a dialogue process. She added "being really dedicated to every time we had a meeting, this is the way we were, people knew that's what we were doing."

Brenda wanted to ensure meetings were valuable, to avoid wasting teachers' time, so she took the time necessary to plan them. She also acknowledged that the people she worked with knew the expectation and the purpose of meetings would be clear from the beginning "so we're all on the same page." Finn started to use the AS meeting structures right away and quickly felt he was on the right track. Over time he saw the meetings were "really giving people a chance to process the information. We're focused on learning and not just on delivering." He added that "we made a practice of doing a lot of pre-planning with our meetings and strategies and really

taking a look at how we were applying the principles of Adaptive Schools. One of the first things we did was make a rule that whatever content we wanted to deliver to cut it in half, so that we'd have time for the interactive piece."

Some interviewees mentioned how they applied the AS training in meetings with others, such as with colleagues at the district level, not only to monitor their own behaviour in meetings, but also to inform how they planned their meetings. Bruce referred to how he structures meetings, using what he learned in the AS seminars, for training others while in his current district role. He mentioned regularly receiving positive feedback on the highly engaging nature of his sessions. Cale made use of the resources before attending a meeting such as the group member capabilities as a reminder to be intentional. He stated,

> I'm going into this meeting, it's going to be contentious, it's with other administrators. There's some hot button topics. I might not be able to mediate the entire group, but I can mediate me and how I behave in it . . . what are my intentions? I'm going to choose congruent behaviours . . . how I behave affects our interaction. So sometimes I'm very strategic about not speaking and not saying a lot, or sometimes I ask the naive question.

To be clear, the AS training introduces the art of asking naïve questions. These types of inquiry possess an innocent quality and use an approachable voice to surface important topics in an open manner (Thinking Collaborative, 2019).

An additional aspect regarding structured meetings that some participants articulated was the use of the AS meeting agendas. To clarify, in the AS seminars, specific ways of using agendas are taught and modelled, to ensure everyone knows the focus and topics of meetings as well as where the group is at in reference to the agenda, thus supporting their engagement. For example, Greta mentioned that she has been consistently using visual agendas for every meeting

the last seven or eight years, while Ella acknowledged the use of agendas to specifically share with staff the purpose of different parts of the meeting.

Participants Utilize Norms of Collaboration in Meetings. Principals were asked if learning about any skills in the AS training may have influenced their leadership identity. From these responses, a sub-theme in connection to AS meetings surfaced, that is, the belief that the norms of collaboration were important for their school leadership. The AS norms of collaboration are pausing, paraphrasing, posing questions, putting ideas on the table, providing data, paying attention to self and others, and presuming positive intentions (Thinking Collaborative, 2019). In the AS training, the specific norms are taught and the opportunity to practice using these norms is embedded in learning throughout the four days of both the Foundations Seminar and Advanced Seminar.

Principal responses included valuing the norms as conversational skills as a whole and valuing learning and using specific norms. Related to norms as a set of skills, most participants shared how crucial a part they played in how they run meetings, as a significant, foundational focus or starting place. For example, Juliette shared the collaborative norms are central to her meetings: “Anything that I lead, it starts with the norms of collaboration.” Amanda recognized them as “who we are as a school” and key for collaborative work “because collaboration is part of being adaptive” and she believed the norms are how to do this and to problem solve.

The norm of paraphrasing was mentioned as having significant value and a potent skill for enacting their leadership. Moreover, some of the principals increased awareness of their learning curve concerning the norm of paraphrasing after the training, recognizing how effective it was for their leadership. Brenda mentioned:

> Paraphrasing was really hard for me to get at first, but gosh, when you're actively listening . . . I get so busy in my mind, that through this I really learned how to actively listen . . . paraphrasing forces me to listen and be able to respond versus I can look like I'm listening all day long. But those norms have really helped me go, “Okay, stop. This conversation’s worth having,” and really using those norms.

Cale, like other participants, had to work to develop his skills in paraphrasing but came to appreciate his ability to use them:

> You know how long I worked at improving my paraphrasing? . . . because I was so bad at it, but then when I got good at it, and I would be in a dialogue like this with somebody . . . and just try to have a dialogue without paraphrasing somebody effectively, try to not give them that feedback that you heard what they said, the acknowledgement, the balancing inquiry and advocacy, I mean, all of that stuff, to me is just, oh, I just love it, I absolutely love it… Oh, my gosh, what a powerful tool. And I use that and use it and use it. Absolutely. I use it. I mean, I live it.

All principals mentioned and valued the collaborative norms.

Participants Utilize Dialogue and Discussion Structures in Meetings. Interview questions specifically asked participants about whether learning about dialogue and discussion structures had influenced their learning and leadership identity. When examining the themes that surfaced in response to this question, the focus was on ways participants used these two ways of talking in enacting their leadership, which in turn reflects their leadership identity. The responses revealed that principals not only could articulate the meaning behind dialogue and discussion, as taught in the AS seminar, but also could make consistent use of the structures.

All principals referenced the two AS deliberate conversational structures, dialogue and discussion, as part of their leadership in meetings. Slowing things down to hear all perspectives was seen as a priority before decision-making. There was a clear understanding expressed by principals that taking the time to engage in dialogue supported a commitment to the decisions they were making as a staff. Heidi, Juliette, and Iris emphasized how they took time to train others in these conversational structures to ensure everyone understood them.

Both Greta and Ella provide further examples from the interviews to clarify these points. Greta found value in how "dialogue honours . . . it's that social emotional connection, your belonging and safety." She discovered by using dialogue and discussion "when we linger on that dialogue side and get understanding, then you can get to the action or the discussion and the decisions really quickly . . . and people will buy in because they understand why we're doing this in the first place." She believed that "being a leader is not necessarily about getting to action right away, but it's about understanding which actions are most appropriate, and why we would choose those over others," essentially the purpose of engaging in dialogue.

Ella found the value in taking time for conversations was key to make sound decisions, to hear from everyone:

> . . . it goes back to that slowing down a bit. If we're going to really make good decisions, then we really have to talk them out. We really have to hear all voices, even the ones that we don't necessarily want to hear. When we clarify [dialogue], we're just going to talk about this today so that we can learn all that we need to do. And then we're going to walk away. We could have a walk away question that has people thinking, percolate a little bit, and then when we come back, we're going to make some decisions about this, you're not making them in haste. You're able to think about all the options you're able to have

> people talk to each other, and you're able to hear all the dissenters. Who are the ones that are not thinking the same as you are? And explore that a little bit.

Ella noted that she learned a great deal from hearing different perspectives in the process, and that taking the time for dialogue fostered collective commitment to decisions made. Principals used dialogue to foster collective understanding before moving on to discussion for decisions. They also prioritized safety, especially to manage more difficult topics, which is the intent of dialogue and discussion as taught in the AS training.

Participants enacted their leadership in new ways in response to the AS training in connection to meetings. They used and valued the learning they gained about meetings, norms of collaboration, dialogue, and discussion. Briefly, principals articulated a way of viewing time spent in meetings in specific ways. They took time to teach the norms, dialogue, and discussion structures. They prioritized planning purposeful, productive meetings as important to maximize time together as a staff or team. Simultaneously, they invested in dialogue, taking time to slow meeting conversations down to ensure there was shared understanding prior to discussion for decision-making.

Complex Adaptive Systems Influence Learning and Leadership Identity

In the AS training, participants learn about the AS definition of adaptivity to mean "to change form in concert with clarifying identity" (Garmston & Wellman, 2016, p. 4), when schools and districts encounter the need to change. More precisely, the AS training provides an explanation of the need for educators to be adaptive due to the continuing changes in our world and what students need to know, be, and do for such a world. To do so effectively, educators need to engage in an on-going process of adjusting and clarifying their collective identity by responding to the following three key AS questions, namely, 1) Who are we? 2) Why are we

doing this? 3) Why are we doing this this way? The premise is that one's individual identity and a system's collective identity informs choices about what and how teaching is put into action in relation to the changes in the world.

Moreover, to successfully engage in addressing those three key questions, the AS training teaches the characteristics of complex adaptive systems (CAS). Schools are an example of such a system that possesses certain qualities. Complex systems characteristics include: 1) tiny events create major disturbances, 2) everything influences everything else, 3) you don't have to touch everyone to make a difference, 4) both things and energy matter. In contrast, the elements of complicated, linear systems are also taught in the AS seminar in which cause-and-effect are closely linked and deemed to be like clockwork (Garmston & Wellman, 2016).

Principals were asked in their interview whether the learning of adaptivity and CAS were concepts that influenced their learning and leadership identity. All principals responded to the question by saying the learning of adaptivity and CAS was influential to their leadership identity. In their expanded responses, two interconnected themes emerged. Principals revealed the way they saw their schools shifted because of understanding CAS through the AS training. This in turn contributed to *how* they enacted their leadership. To elucidate, when principals responded to the question about how understanding CAS influenced their leadership identity, principals responded by giving examples that revealed them *being* more calm, flexible, objective, open, perceptive, responsive, or intentional, amidst diverse or challenging experiences. The following excerpts provide examples of some of the responses, from seeing systems differently, to ways they chose to respond.

Krystal noted that learning about complex adaptive systems (CAS) contributed to a shift in her "relationship with certainty" because she could see that "nothing is constant. The only

constant is that things are changing and evolving." An epiphany for Krystal was recognizing "this year's solution may be next year's problem." She explained further that "whenever I feel certain now, a little voice in the back of my head says, 'Stay curious.'" Krystal mentioned being more equipped to have a sense of "neutrality" about what needed shifting and what needed to stay within a school culture, referring to an increase in her ability to have a "non-anxious presence." For Krystal her understanding of CAS contributed to being open, calm, and objective.

Iris saw that understanding adaptivity gave her "another layer of reflection to think about how schools work." She noticed how each school she worked in required different leadership approaches and understanding CAS gave her "some grounding to anchor [and] think about…next moves to best reach groups" within each system, from grade groups to parent groups, to specific teams, each as its own system with its own needs. Iris could be centered and responsive to the different contexts she found herself in.

For Finn, the understanding of complexity and adaptivity allowed him to see "the regular gut punches" from dismal school results year after year, in a new light. He shared that

> [It] really helped us see how invisible forces can have a huge impact on us on a daily basis . . . You can have a set thing that's supposed to look like this, but there [are] forces out there that are going to affect how the implementation goes. That complexity initially just became really valuable as an understanding of the need to adapt, why things aren't so simple and linear, that we apply it to our trauma-informed practices with kids, [to] the diversity of languages . . . All those pieces that are paramount that we're trying to incorporate in our diverse little school as strengths, that keep coming back to us as challenges, because we're trying to force feed some linear, prescribed method on top of it, without honoring the complexity of the environment that we live in…it really gives

> permission to make the choices you have to make, when a teacher does things their own way.

Finn continued by explaining a shift for himself and teachers in his school as potentially being perceived as non-compliant to being intentional:

> You could say they're non-compliant if they do it in a different way. In an adaptive mode, because this kid needs this or this kid needs that, it becomes intentional. That's a completely different story. We're able to put some professional license into the decisions we're making. Our director, his mantra is "we want high standards with low variance," almost a franchise model of operating from school to school. When you hear that from the hierarchy, and teachers are operating with variance, you can feel guilty about it, or like you're trying to do good, but do good when no one's looking. There's no permission, like you're an outlaw. So that creates conflict in the individual . . . We're trying to create the identity around being educators . . . that can do these things out in the open because they're what's good for kids and trying to capture that energy.

Such a new way of seeing is allowing Finn to shift his decision making away from viewing it as "non-compliant" from the district's perspective. Instead, he is leaning into being flexible and open in his thinking to view school-based decisions as responsive to what students needed, even though it may create some inner turmoil.

Interestingly, Heidi revealed her understanding of CAS when she shared her story about a hardship she experienced at her last school. There was a backlash from many of the staff regarding a decision made. She explained that she had facilitated a decision-making process at the school level, but the process was misunderstood. This was within a context in which the district and teachers were uninformed about the AS approach and didn't understand how and

why she facilitated the decision-making process. After she explained to me the events that transpired, I responded by paraphrasing, “So the lack of ability for others to see and understand those important concepts in the AS work, in a sense, lead to some vulnerability for you.” Heidi paused and then replied,

> It’s the *lead* part that I’m thinking about. Yes, the lack of understanding. And yes, I was vulnerable. What led to it? I think it is so complex. When we look at complex systems…I don’t know that I draw that direct line there…we can’t even begin to understand the complexity of it.

Her response indicated she recognized the non-linear quality of the complex system she operated in. Later I empathized by saying, “How disheartening. I feel for you.” Heidi then responded with

> It *is* tough. And it also provides another layer of reassurance of being able to say, “it wasn’t all me.” To look at that complexity to see what happened…I can stay grounded in…Adaptive Schools. Again, it’s so complex…at least I can say, it wasn’t just me, there is a bigger system problem. While it is disheartening, it is also reassuring.

Heidi’s comments demonstrated how her understanding of CAS helped her through a significant challenge by being able to objectively see the complexity and stay grounded in herself and her beliefs.

The interviewee responses revealed that gaining an understanding of CAS allowed them to not only see their schools and systems differently, but also to enact their leadership in response to their new understanding. Principals were able to be more calmly grounded as they expressed and made choices that aligned with their leadership identity. It seems that the ability to see their school differently, as a CAS, corresponds to having a “balcony view” of the school, prior to getting on the “dance floor” (Heifetz et al., 2009).

Utilizing Other AS Concepts, Structures, and Skills

Principals generally did not delve into a great deal of talk about other AS concepts, structures, or skills in their interview responses. They made some references to ideas taught and practiced in the AS training, such as the Group Member Capabilities, and understanding and agreeing on meeting roles, which is an AS standard for successful meetings (Thinking Collaborative, 2017).

The AS diagnostic tool introduced in the seminars called “The Energy Sources for High Performing Groups,” is identified as consciousness, craftsmanship, flexibility, efficacy, and interdependence (Thinking Collaborative, 2017). Some participants mentioned the energy sources in two ways. First, this tool was referred to as something they haven’t made formal use of. Amanda shared that while the energy sources helped her “understand the dynamics of a team” she didn’t use them beyond that. Heidi expressed a desire to comprehend the energy sources more by saying, “I would love to get to know that better.”

Second, this tool was referred to as useful by both Juliette and Bruce. They explained the energy sources were valuable to their leadership, specifically in recognizing an energy source that was lacking in an individual or a group. Once they were able to identify it, they explained that they would know how to intervene through conversations to promote its growth. Juliette, for example, identified the tool as her “bible” by saying,

> Oh, I use that. They are my go-to . . . I will listen in a conversation when I'm facilitating a group and think, "oh…the group is low in flexibility." In fact, if I reach down in my purse right now, I actually have the five energy source cards, which are useful to support myself and team members in assessing when collaborative energy is low or high. The

> cards also include sample questions to help me in mediating the groups energy, so they are more effective as a group.

Juliette went on to explain,

> For example, if a team is low in flexibility such as they are unable to see situations from multiple perspectives, I might use the question . . . if we were to step into the shoes of _____, what might we see?

Bruce explained in more detail how he can recognize specific needs for support or growth, based on understanding the energy sources,

> That's *efficacy*, where we have staff that come to work every day feeling like they will make no difference in the lives of kids, doesn't matter what they do. And the minute you see it, you hear it, you see it in their demeanor, you see it in their instruction, you see it in their planning. And it's good that you can see it because then you know exactly where to start from . . . you create and craft your conversations, or general dialogue around that. So yeah, those individual kinds of skills are really influential.

Like others who were interviewed, Bruce acknowledged a learning curve exists in understanding some of the concepts, like energy sources, but with practice was able to make use of it in meaningful ways:

> Now, when you're first learning, it's man, you just don't understand it, like you get it that you don't get it. And then it starts to make a lot of sense. And then when you . . . have that unconscious competence, where you start to pick it up on people, you start to read people pretty quick. And you know, potentially, how to engage some positive thought there.

What is noteworthy in Juliette's and Bruce's explanation is they provide indications to be principals who possess leadership identities that prioritize growth in others through using an AS tool for that purpose.

Prior to engaging in the next portion about the themes related to how the AS training aligns with a Leader for Learning (LFL) leadership model, a brief conclusion to this section is provided. The participants interviewed in this study shared that they valued and utilized the AS training structures and skills, such as the norms of collaboration, and dialogue and discussion, to be purposeful in their meetings. Some articulated how they used the "energy sources" tool and "group member capabilities" as well. The concept of CAS influenced participants by helping them to see their schools differently and providing them with clarity and a calm presence to inform their leadership choices.

AS Training Supports Leader for Learning Model

One of the specific research questions explored in this study was, "How does the AS training influence the development of principals' leadership identity specifically as a Leader for Learning (LfL)?" To clarify, LfL is an integrated leadership model that includes qualities of instructional, situational, distributed, and transformational theories. Principals who enact a LfL approach target a school-wide learning focus for both students and teachers, emphasize collaboration, teamwork, and capacity building (Daniels et al. 2019). Examination of the interview data took place to see if some of the specific characteristics of this LfL model surfaced in principal responses when they discussed how they applied the AS learning to their leadership.

While the AS training has a mission of developing collaborative groups to address today's student learning needs, participant responses revealed principals indeed emphasized a collective focus on student learning through collaboration. This is already evident through the

themes previously mentioned, that is, ways principals utilized meetings among educators. In brief, principals enacted their leadership by using the meeting structures taught in the AS seminars to build collaborative norms, shared understanding through dialogue processes, and collective decision-making through discussion protocols. The following section expands on these ideas to illuminate how principals valued and believed fostering shared ownership of collaborative learning was important to address student learning needs in specific ways that were related to their school context.

AS Training Supports Shared Ownership of Collaborative Learning

Six principals articulated that focusing on a learning culture, not just for students but for educators, was a key value for their leadership. Evidence surfaced not only from the principals' specific statements but also through inferring such learning values from what they prioritized in their day-to-day work. For example, Brenda shared, "I tell people all the time that this is a learning building, this is a learning institution. So, everybody needs to be learning." She further justified how she used the district's learning imperatives and tied them to her school's learning focus. Then she used the AS processes to build ownership "to ensure that we're doing what's best for each kid." Iris had a similar approach to collaborating with teachers "with a focus on what's best for kids," using the AS protocols. Other participants mentioned how the AS training helped them get clear on their school's shared purpose.

Two principals, Finn and Greta, discussed how the AS processes and skills allowed them to create shared ownership among teachers that either unified a diverse group or enhanced collective thinking to consider more diverse perspectives. Finn explained how important it was for his staff to delve into the challenges they were experiencing as a school with openness and honesty, to help give them permission to consider alternatives. Finn added that the AS work is

not something “you can layer on top of people and they’re going to automatically acquiesce; we’re dealing with human beings with different thoughts, patterns, ideas, and experiences.” He acknowledged how the safety and openness that was created through shared understanding “really helped us double down . . . to reinforce our mission as caring adults that wanted to do good things for kids . . . that’s what rose to the top.”

Greta shared how critical it was to build shared ownership by digging into the dialogue and how enriching this was for the group.

> All of a sudden, these light bulbs go off, because somebody has offered a slightly different variation of something that I thought was certain . . . Sometimes they blow my mind. But sometimes it’s that enriched understanding . . . when you do that in well facilitated groups, there is a palpable energy that the group owns. You build trust. You just get better results in getting people on that common vision if you use those [AS} strategies.

Most principals specifically acknowledged how collaboration was a central part of their leadership, and how the AS training supported effective teamwork in their schools. They also identified collaboration as a key operative in how they lead to address specific areas of student learning that required further teacher development. Some of the situations in which principals applied the AS training highlight how the collaborative efforts were context specific.

What emerged as needing attention to better address learning needs in their schools was seen as an opportunity to utilize the AS training. Some topics principals used the AS training for included understanding sexual orientation and gender identity (Krystal), supporting students with Fetal Alcohol Spectrum Disorders (Krystal); developing assessment and reporting practices (Krystal); crisis prevention (Bruce); supporting student transitions (Bruce); improving teacher

racial equity understanding (Amanda, Ella, Juliette, Krystal); developing student self-regulation (Ella, Juliette); and developing reading and math instructional practices (Finn, Brenda, Iris, Diana). Principals in this study applied the AS training to diverse educational topics related to their school's needs through the development of shared ownership and collaboration.

Participants Valued the AS Training Delivery

During the interviews, participants provided feedback about the way the seminars were delivered in connection to their learning and leadership identity and what they found to be particularly helpful and not helpful about the training. The principals' responses provided input for the research question: How might the way the AS seminars are presented influence principal learning and leadership identity? The previous section on participant reactions to the AS training revealed positive perceptions of the seminar as applicable, engaging, and transformative. Further, the participants also highlighted the way the presenters of the training modelled what they were teaching. What follows is a brief discussion regarding this theme.

AS Presenters Model the Learning

All principals referred to the AS presenters of the training in some way. Eight of the principals interviewed (Ella, Finn, Heidi, Amanda, Cale, Juliette, Brenda, Bruce) emphasized the skills of the presenters and how effectively they modelled the learning. With tones of fondness and admiration, many presenters were named specifically, whether the founders, Robert Garmston and Bruce Wellman, the Co-Directors of Thinking Collaborative, or the Training Associates. Ella provides one example of her perception of the AS presenters,

> I'm always amazed at how skilled and professional the facilitators are. And I learned not just about the content, but I learned the skill of presenting. I just find that so polished . . . we use the word elegant all the time in coaching [and] Adaptive Schools and they're

> phenomenal to see . . . I also like the science behind it. I often share the story about being in a one of sessions . . . I saw on the list it was going to be Bob Garmston, talking about the history . . . and I thought, "Oh my gosh, two and a half hours of this really? Maybe I will just do some online shopping." Well, I was fascinated, and I was riveted…It just shows how thoughtful they are and how thorough they are in linking science and theory to what we do in our schools every day, the thoroughness of it, the way it's presented, the contents, the thoughtfulness of how the day unfolds. It's really quite remarkable.

Finn found it to be "fascinating" the way the presenter was "pulling back the curtain . . . she was giving us a blow by blow behind the scenes of [the] why of her decision-making process, and how that was designed to impact the group." Cale also articulated how much he enjoyed "the backstage element" of the Advanced AS Seminar to become more aware of why presenters do what they do to facilitate professional conversations. The skill of the presenters who led the AS training helped principals deepen their understanding of the concepts, structures, and skills by seeing the AS work modelled for them.

Two participants used words associated with a positive perception regarding the structure and well-organized quality of the AS seminars, when they described their experience in relation to the presenters modelling. Cale shared how he quickly he could see the value in the training. Once he finished the AS Foundations Seminar, he reacted with "this is the best workshop I had ever been to in my entire career." He expanded on this statement by explaining, " . . . the design of the workbook, the area to write your notes and everything you need is there, and the cooperative learning nature of it . . . the constructivism of it, the pacing, the density; it's very, very rich."

Brenda clarified that one needed to have the right mindset going into the training because it was so interactive and that it was tiring for her. She stated,

> If you think you're just going to sit for four days at the training, you're going to be in for a rude awakening. It's just a such a solid format. But there's times where I did just want to listen. I felt like there was so much going on . . . it left me tired. But . . . I've been able to learn and use [it} regularly. And you can't always say that about trainings we attend."

Although Brenda acknowledged the energy required to participate in the training, she also recognized the value in the AS training.

AS Training Areas for Development and Implementation Considerations

Principals provided their input on what they felt was not helpful about the AS training. All principals either didn't mention anything unhelpful or stated that there wasn't anything about the AS training that was not helpful, apart from Brenda who found the training tiring at times. Some principals expanded on their responses by sharing perspectives that relayed some concerns and challenges in two areas, namely, the organization of Thinking Collaborative and implementation of AS training in principals' school systems. Concerns related to Thinking Collaborative focused on racial inequity, accessibility for Canadian involvement, and availability of AS training online during the Covid-19 pandemic. Challenges in connection to implementation for some principals focused on difficulties due to the district context in which they worked. These sections that follow discuss these themes.

Racial Equity Considerations

Five principals highlighted how they valued the use of the AS training for engaging in important racial equity conversations. Principals saw the use of AS as helpful for groups and schools to have a critical dialogue to build more informed understanding to support students not

being served in education systems, especially Black students. As Bruce summarized, “The more dialogue, the more understanding of other perspectives that are varied and potentially different than that of the governing group” the potential for better understanding. He further acknowledged that, “Assumptions never considered become obstacles for those the systems were not established for.” Juliette added, “Dialogue honours. It’s the social-emotional connection, your belonging and safety” to be able to engage in uncomfortable conversations and examine assumptions. AS training was viewed as supportive for groups to delve into vital racial equity conversations.

At the same time, however, one participant described her evolving awareness about the influence of social identities, such as gender, socioeconomic status, or race, on leadership identity. She had never considered the intersectionality of social identity in connection to who she is as a leader until the district she serves began to deepen their work on an anti-Black racism strategy. She explained that now she saw one’s racial identity as the most prominent for understanding and awareness since one’s race is immediately visible. Moreover, one’s leadership identity, she acknowledged, cannot be separated from one’s social identity and requires ongoing consciousness. Juliette further explained,

> I really believe that in order to get at equity, we have to get at it through race…I’ll give you an example. My colleague [is] a White, gay man. He’s marginalized, right? But he said, “They see me as a White person first . . . I have privilege.” . . . It’s interesting, when you [Lucinda] said your project is on identity, my big aha, too, was the impact of my social identity on me as a leader. Yeah, I can be a collaborator, a lifelong learner. But for me, it’s becoming aware of “Gee, when I am collaborating, when I am working with staff, how am I aware of how my social identity impacts others or my positionality?

Further, Greta was highly reflective about the racial equity work she has engaged in within her district in connection to the AS training. She shared that she has “an expanded set of wonderings” when she considers her more informed consciousness about racial equity and some of the norms of collaboration, namely, presuming positive intentions and putting ideas on the table. She articulated,

> . . . in our copious, endless equity training and workshops that we have now, they talk about norms, well, whose norms? If they're White normative, then they're harmful? And I've started to hear people saying that they don't really want us to use the word norms. Because it's infused with White power, White supremacy . . . I'm just tucking this away . . . And the other thing is, in the equity work, there's a lot of talk about how intentions, you can have all the best intentions, but [it] doesn't matter. It's your impact. When we're in the norms, and we talked about presuming positive intentions now and going like, “Hmm, I think that's a danger zone, because . . . for example . . . “Oh, I didn't mean to harm someone,” and I've been chastised for this literally, from our very, very strident equity people. We can't say intentions anymore. It doesn't matter what your intentions were, you harmed somebody. So now I have these wondering, how does Adaptive Schools fit with this whole world of equity? But somehow, we may need to be adaptive in order to align with this huge, huge, huge shift that we're observing, least I'm observing . . . And then another one of our norms is “put ideas on the table.” And if you are in a position of like, let's just say people think, especially because I'm white, that I have an inherent position of power. Do they really believe that all ideas . . . are [viewed as] worthy at the table? Somehow, I think we're going to need to do some merging of our adaptive strategies and contemporize them.

The point was raised that Thinking Collaborative is predominantly a White organization, developed by three White males, and currently being led by three White females. Questions about the impact this might have on others and the reach of the AS work in our educational systems for those who are non-White was surfaced. To note, out of about 75 AS Training Associates photos posted on the Thinking Collaborative website, it appears four are black, two are Asian, and the rest are white. Having more BIPOC representation within the Thinking Collaborative community seems to be an area for consideration to ensure racial equity and potentially expansion of the work. Moreover, the possibility that the AS training predominantly comes from a White perspective also needs to be weighed.

Accessibility is a concern

AS Training is offered in at least nine other countries besides the United States and Canada. For this study, which explores the influence of AS training on North American principals, the accessibility of the training and ability to be involved in the AS community did emerge as a concern. For Ella, she questioned why she was never invited to be involved in an AS community task group when the Co-Directors asked for input, even when she put her name forward. She mentioned

> I mean, I think that this isn't necessarily about the seminars, but it's the overall organization. In being Canadian, we often didn't feel that it was inclusive. I remember, there would be a call for people to be on a committee to participate in something, and I always volunteered [but] was never chosen . . . Even though that doesn't have to do directly with the seminars, it did impact our feelings about where we fit in the organization . . . when some, for Adaptive Schools, were two days here, and two days there, I mean, we drove to Detroit to do those two days in October and two days in

> December. We really were committed to it. And so not necessarily the content, but certainly the accessibility for us as Canadians. And there didn't seem to be any desire to change that.

These views may also extend to other countries who wish or need to access AS training and be involved.

Adaptivity during a Pandemic

A foundational concept of the AS training is the explanation of what is meant by adaptivity as "changing form while clarifying identity" (Garmston & Wellman, 2016, p. 4). Given the global pandemic reality, for some principals the need for adaptivity from Thinking Collaborative surfaced when AS trainings were halted due to the inability to meet in person. Some expressed a desire to find ways to be adaptive and provide the seminars online. Yet, such an option did not seem to be permissible. Krystal was one principal who found this to be rigid not only in connection to the process of getting qualifications to extend the work in their systems, but also related to Covid-19 restrictions. She shared

> I find some of the rigidity of when I think about being a presenter… some of the rigidity around getting your qualifications and not be able to do it online, because right now during COVID . . . and I know it is fidelity driven but some of that rigidity has made it that we've had to morph away from doing Adaptive School seminars. But just really building the work into what we do, instead of doing the seminar so people get that formal Training. Because I really believe in the formal training as an anchor, to then applying the work. I think that gives people the most power in their next steps, is to have that formal training and then feel it embedded in their work. I think that's where it sticks.

In sum, while some participants clearly expressed how they use the AS training to facilitate racial equity related conversations in their schools, others also brought attention to the need for further awareness about the intersectionality of leadership identity and one's race, the need for developing more racially diverse representation within the Thinking Collaborative organization, and the need for a closer examination of the norms of collaboration to determine if they are as inclusive and conscious as possible. Some Canadian participants raised the issue of accessibility to the training given their enthusiasm to participate and the distance travel as well as the desire to be more involved in Thinking Collaborative.

Contexts Matter

Nine of the dozen principals interviewed came from school districts that offered or supported AS training. Of the three others (Finn, Bruce, and Heidi) that pursued the training outside of their system, they described significant challenges due to the districts or schools having an approach or collective identity that did not align with the AS training. For Finn, it appears he was able to step into a "self-authored" leadership identity after the AS training, when faced with the abysmal annual reading results and pressure from senior leaders to comply. He chose to pursue and enact his leadership identity in a way that was not familiar to the system he was in, after he participated in the AS training. While he has been able to make gains in his school and shifted his leadership identity to be one who promotes growth in others rather than a director who uses a top-down approach, the journey through was a difficult one. He has emerged with clarity about who he is as a leader.

In contrast, Heidi, an avid learner also pursued the AS training on her own and worked in a system that did not align with the AS training. However, she encountered repercussions and was demoted. It also seems that Heidi "self-authored" a leadership identity in response to the AS

training that was not familiar to her system, at the school and district level. In the end Heidi was penalized and given a vice principalship, rather than continuing as a principal. While the situation in her system goes beyond the focus of this study and is a complex one, it does bring to the fore a possible consideration regarding a potential vulnerability for some principals, possibly women, when they enact their leadership identity in adaptive ways that sits in contrast to the system or school's identity in which they reside and lead in.

Providing another example, Bruce relayed the difficulty he experienced when he began a principalship at a school with more toxic elements. Although his district was supportive and promoted the AS training, which Bruce found to be "extraordinarily helpful," some challenges in enacting the AS training at the school level still occurred. Bruce "kind of abandoned all of my Adaptive Schools foundation," because of the dysfunction there and "felt like I was on survivor." In hindsight, he reflected that

> what I ended up doing was being more reactionary, and just kind of accepting my fate, as opposed to sticking with [AS] foundations, keeping up with, you know, posting my agendas, and using the tools that I've learned [from Adaptive] Schools to really break through with this particular team to actually work and talk and gain trust with each other and dialogue . . . I don't know if that would have made a difference because these folks are so far gone and so split that you know, I walked away with truly believing that they just needed to zero base that school and rehire and start over because it wasn't going anywhere…I don't know if it would have mattered . . . And so, there's regret there, a little bit of what could happen, what should happen.

It may have been due to Bruce's developing leadership identity at the time in relation to his relative inexperience with utilizing the AS training that contributed to being, in simplistic terms,

absorbed, by the school culture. Nevertheless, Bruce surfaced from the context of difficult cultures and the challenges of shifting them with new approaches.

Finn, in a similar experience, explained how, when he first began using some of the strategies he had learned through the AS training, teachers who typically would dominate meetings were “uncomfortable” not being able to “run the show.” He described the difficulty shifting the toxic culture in the school and needed to persevere:

> And lo and behold, I was getting a lot of pushbacks . . . I have these, these grand visions of how I think things are going to go and really, in many respects, it was a clunker. I can't remember if I had seen something in the Adaptive Schools’ handbook. But like, I must be missing something. And I went back to the handbook, and I think it's in Chapter 11. And they're talking about the dynamics of the group and there's some language in there to the extent of . . . if your organization is really dysfunctional, what you're going to find as you implement these things, is chaos. Because you're overcoming pseudo community, you're overcoming a lot of dysfunctional practices that have been really hardwired into people. I remember thinking, “Man, I wish [the presenter] would have spent more time on that because I was not anticipating the challenges in terms of the transition to this, to this work from where we were. And our school was absolutely dysfunctional . . . there was something toxic in our environment . . . so that dysfunction, as you're opening things up, there's a lot of stuff to work on and reorder and so that rose to the surface really quickly . . . That chapter was really helpful to me though, because knowing that was an expected piece helped me with the efficacy part of it, to be able to persevere and keep going to say, “Okay, we can get through this.”

Whether at a district or school level, some principals, Finn, Heidi, and Bruce, encountered some challenges in implementing the AS training. This may perhaps be partially due to their emerging leadership identity, toxic elements within the school culture, or a collective identity in the system that didn't align with the AS training.

Conclusion

The following paragraphs briefly summarizes the key themes that emerged in this study in relation to the specific research questions.

In what ways have the concepts, processes, and skills in the AS training been influential in the development of principals' leadership identity?

Principals regularly used and applied the AS concepts, structures, and skills in meetings with their staff and colleagues to enact their leadership identity. They found the norms of collaboration and the conversational structures of dialogue and discussion useful and valuable. Principals found that the AS training clarified their leadership identity by giving them skills and strategies on how to enact it, beyond knowing leadership theories alone. For other principals, the AS training was transformative and their leadership identity shifted from one who micromanages or directs, to one who promotes others empowerment and self-directness.

Overall, what has emerged as central to the leadership identities of this group of 12 North American principals is they see themselves as adaptive leaders who prioritize collective collaborative engagement and the empowerment of others in the work to serve student learning. Most participants explained that their leadership identity was about developing stimulating, and empowering growth in others. For example, Cale emphasized that "my number one goal is empowerment. It absolutely is," while Bruce described himself as a "coaching developer of self-directed humans." Finn also clearly shared, "I'm very much interested in the definition of leader

as a conduit of growth to try . . . to take them from where they're at to a higher place. I work to not micromanage, but instead to empower the people I work with." Krystal stated it another way, "leaders grow around me." The priority of collective engagement and empowering others affirms the critical quality of how these principals' leadership identities strive to influence learning in their adaptive schools.

How does the AS training influence the development of principals' leadership identity specifically, as a leader of learning?

Principals' responses indicated the AS training contributed to a leadership identity that aligned with a Leader for Learning leadership model by prioritizing a collective focus on student learning needs through intentional collaborative efforts. They applied the AS training to various topics and needs in connection to their specific contexts, also illuminating the flexibility of the AS learning. Their leadership exemplified aspects of distributed, instructional, and transformative leadership models, the heart of being a leader of learning.

How might an understanding of adaptivity and complex adaptive systems (CAS) influence principals' leadership identity?

The concept of CAS as taught in the AS training contributed to the development of the participants' leadership identity due to seeing their schools differently, that is, they were more able to recognize their schools as constantly shifting. They recognized the intersecting parts in their schools and the need for collective engagement to address uncertainty. In turn, the principals were able to be more calm, flexible, objective, open, perceptive, responsive, or intentional in complex situations due to understanding CAS. They valued time spent on thoughtful planning to ensure educators in their schools interacted in new ways, demonstrating an awareness and appreciation of CAS characteristics.

How might the way the AS seminars are presented influence principal learning and leadership identity?

The principals had positive reactions to the AS training and believed it benefitted their leadership. They discovered the training to be helpful and applicable to their role, to possess an engaging nature. They recognized AS seminars went beyond a lecture format, embedding ample time of reflection and practice of the skills introduced.

Participants had the opportunity to articulate what they found helpful or not helpful about the AS training. While they were clear and forthcoming on ways the training was helpful, as outlined above, some additional views noted the amount of time needed to learn it, the amount of energy required to engage in it, and the awareness of the challenges that might occur when implementing it within systems or cultures that didn't align with the AS approach.

In addition, concerns were raised about the need for developing racial equity or diversity within Thinking Collaborative, by noting the number of White individuals represented. Further, consideration for updating the norms of collaboration, that is, presuming positive intentions and putting ideas on the table, to be more racially aware, was articulated as needed and worthwhile by some participants. Some Canadians mentioned the difficulty with accessibility within the organization, even though they were very much committed to learning and desiring to be involved. Some noticed an element of rigidity in being able to present and participate in the AS training, particularly recently with the need for adaptivity given the challenges of the pandemic and being unable to meet in person.

Chapter Six: Discussion

To contextualize the conclusion of this dissertation, Chapter One outlined the relevancy and significance of today's principalship as vital for student success in conjunction with the role of the teacher (Grissom et al., 2021). Yet, the reality for these key school leaders is presently in the throes of deep change in British Columbia and across Canada (Wang, 2020). This is not only due to family and school conditions, changing technology, student diversity, and cultural and social influences, but also due to the global context of grave political and environmental concerns and predictions (ATA, 2014; Kensler et al. 2019). With such substantial responsibilities, the principal role needs to be conscientiously contemplated and explored. Furthermore, given the emergence of leadership identity as significant for principals today to address complex challenges, research that delves into leadership identity is certainly justified.

Knowing how to enact principal leadership with a clear sense of identity is key to effectively fulfilling one's role as principal. Through this study, I wanted to explore ways the Adaptive Schools (AS) training might influence the development of principal leadership identities and how the training might support them within the changing context of the principalship. I completed semi-structured interviews with 12 North American principals who have engaged in the AS training. Through a basic interpretative qualitative method, I inquired into the following questions to guide my research and the discussion that follows:

1) In what ways have the concepts, structures, and strategies in the Adaptive schools training been influential in the development of principals' leadership identity?
2) How does the AS training influence the development of principals' leadership identity, specifically as a leader for learning?

3) How might an understanding of complex adaptive systems influence principals' leadership identity?
4) How might the way the AS seminars are presented influence principals learning and leadership identity?

This chapter begins with a discussion of the major findings. Next, implications of these findings are provided, with recommendations for principals, system leaders, and Thinking Collaborative (TC), the organization that offers and promotes the AS training. In closing, the key takeaways, implications for further research, and limitations of the study are explored.

Major Findings

The research interpretations revealed the AS training positively influenced the development of principals' leadership identities in convincing and specific ways. The detailed data that surfaced indicated AS training influenced principals' leadership identities by ways they enacted their leadership, ways they perceived their role, and ways they constructed meaning. To discuss the findings, three main topics are addressed. First, principals valued and applied the AS training and shifted their leadership practice as a leader for learning. Second, principals shifted their way of seeing their school or system because of learning about complex adaptive systems. Third, because of AS, principals had a shifted professional learning experience that supported them in their learning and their leadership as a result.

In addition to these findings, some of the unexpected and contextual findings related to some principal responses in this study examined include, (1) challenges with implementation; (2) racial inequity considerations within the organization of Thinking Collaborative and possibly within some of the norms of collaboration; (3) the need for adaptability during a pandemic; and (4) Canadian accessibility to involvement in Thinking Collaborative opportunities. Revealed by

what participants shared, the lenses that are contributing to my contemplative and informed musings on these themes are gleaned from the foundational concepts of the AS training, namely identity, inclusivity, and adaptivity, which necessitate deeper exploration given the contextual themes that surfaced.

Shifted Leadership Practice

The principals in this study shifted their leadership practice to utilize what they learned in the AS training. These North American administrators represented diverse schools in different contexts, whether rural, suburban, or urban and in elementary, blended, or secondary schools. Yet all valued the AS training, found it to be useful, and applied it to their leadership role. The specific attention to conversational structures and collaborative skills introduced during the AS training were viewed as relevant to each of their settings. The AS concepts, processes, and skills transferred to different settings, challenges, and needs. It seems, then, the AS training provided the over-arching practices that could be used by any principal who participates in the training.

The principals became skilled with the use of the AS training. As they readily applied what they had learned, they increasingly incorporated the AS training into how they led over time. Specifically, principals in this study enacted their leadership by using the AS training for meetings at the school and district levels. The principals worked to give others ample time to talk and construct shared meaning through dialogue while considering diverse perspectives about topics and issues related to their students' needs. In particular, the use of the norms of collaboration, meeting standards, dialogue, and discussion conversational structures were highlighted in their responses and incorporated into how they led. The principals took time to intentionally plan their meetings by referencing the AS materials for clarity on processes, indicating they valued what they learned and committed to ongoing implementation.

The principals in this study either moved away from embodying a leadership identity as a director or gained clarity to their established leadership identity by understanding *how* to lead collective school engagement through AS practice. For these school leaders, a willingness to allow for emergence within meetings is auspicious because it shows a release of control over what they might wish to decide for their teachers to address student learning needs. Given the complexity of student, school, and global needs and concerns, the leadership practices of facilitating dialogue, thoughtful questioning, and intentional listening, for instance, reveal an allowance for the emergence of new ideas originating from the group. This further creates potential opportunities for disruption in the status quo of school delivery. Collective engagement and meaning-making within the group it appears may contribute to agency and group-directedness to address student learning challenges.

Notably, as the principals shifted their leadership practice, they also demonstrated identities in alignment with the characteristics of a leader for learning (LfL), an integrated leadership model that includes instructional, distributed, and transformational leadership characteristics. Because the principals interviewed articulated how they applied the AS training to facilitate school learning, it is worthwhile to ponder their leadership identities in relation to LfL. To pull apart each of these individual models in reference to the ways the principals in this study demonstrated LFL with the AS training, assists in comprehending more precisely the ways they embodied their identities.

First, regarding instructional leadership, the principals perceived that they utilized talking structures and ways to support interaction among teachers within meetings and make explicit connections to other teams and classroom practice. This is part of the AS seminars, during which presenters intentionally prompt participants to reflect on the application of AS training in three

different settings: individual learning within the AS training itself, other adult contexts in collaborative teams, and other student contexts in classrooms. The principals demonstrated qualities of instructional leadership that encourage meaningful learning engagement at different levels. To be clear, the very nature of facilitating collective learning amongst professionals coincides with pedagogies viewed as more present-day teacher practices, aligning with being a "guide on the side" versus the more traditional "sage on the stage" (White-Clark, 2008).

Second, distributed leadership became apparent by the ways these principals perceived they did not prioritize micromanaging or directing work in their schools unless unprofessional behaviour warranted them to do so. They worked to cultivate shared understanding and collective decision-making with a core quality of empowerment, an essential quality of distributed leadership (Daniels et al., 2019). They demonstrated distributed leadership by choosing to use the group to change the group (Fullan and Hargreaves, 2015), that is, by inviting and cultivating collective ownership, co-constructing shared understanding and decision-making. These school leaders recognized that everyone has a leadership role to play in engaging in the decisions made for student learning in their schools.

Third, some principals demonstrated a transformational approach by showing a willingness to oppose the district's prescribed plan for action that was more technocratic in nature. Finn's experience emerges as a clear example since he began leading in ways that contrasted with the district's expectations. Moreover, the three key AS questions are fitting and aligned with a transformational leadership model, that is, "Who are we? Why are we doing this? Why are we doing this this way?" (Garmston & Wellman, 2016), since these lines of inquiry invite a process of on-going adaptivity that is at the core of transformation, and certainly not static. Several principals referred to the three questions as guiding their leadership.

Shifted Sight through Understanding Complex Adaptive Systems

This study found that principals' understanding of the concept of complex adaptive systems (CAS) influenced their leadership identity. Their responses illuminated that, for them comprehending schools and systems as CAS shifted the way they saw their school. Their shifted sight is significant since this also contributed to shifting their sense of *being* within their role. Participants described how they were more able to be calm, flexible, objective, open, perceptive, or responsive. These words denote a sense of impartial presence, being grounded, and being able to pivot, when necessary, which would be critical for leaders encountering complex problems. Moreover, due to the amount of stress and expectations within any principalship, being able to maintain an ability to see their system from such an anchored, neutral stance, seems vital. With this way of being central to these principals' leadership identities, it speaks to the resilient and persevering quality necessary today for school leaders who can stay the course amidst chaotic conditions.

Given the general gist of the words principals used to describe the influence of understanding CAS, it is suggested that they may have developed a "self-authored" leadership identity. To explain, Kegan's (1980, 1994) constructivist-developmental model outlines various stages of adult development that are not a given, or a certain course. To progress to a more complex stage of development requires both growth and intention. One of the principles of Kegan's (1980, 1994) theory of adult development relates to what he calls "the subject-object balance" referring to different ways of meaning making at each developmental stage. Being unable to gain an objective perspective on ourselves, others, or contexts, one is said to be "subject to." Whereas possessing the ability to take a more objective perspective and hold

oneself, others, or contexts “as object” the more one is “better able to manage the complexity of learning, leading, teaching and living” (Drago-Severson & Blum-DeStefano, 2014, p. 117).

Being able to make meaning in more complex ways has been tied to a self-authored and self-transforming stage of adult development. Several researchers (Breakspear, 2017; Breakspear et al. 2017; Crane & Hartwell, 2018; Drago-Severson, 2012; Drago-Severson & Maslin-Ostrowski, 2018; Hesling et al., 2008; Hesling & Howell, 2014; Kershner, 2021; Petrie, 2014) mentioned the connection between one’s leadership identity and how one constructs meaning. Leaders, then, who possess a self-authored identity can more ably lead during complexity. Therefore, noting the words the principals used to describe the influence of understanding CAS, as more calm, responsive, and objective, is curious and interesting. While determining if these principals are indeed “self-authored” goes beyond the purpose of this study, it does indicate that this may be possible and worth further investigation.

Shifted Experience of Professional Learning

Principals relayed how they found AS seminars engaging, participatory, interactive, and applicable to their work. Seven mentioned the transformative quality of their AS learning. Others explained the increased clarity they gained due to understanding specific ways to enact their already clear leadership identities. The principals found how the presenters modelled the learning influenced them to understand why specific facilitation decisions were made for delivering the AS seminars. The principals not only had the opportunity to learn and practice AS concepts, processes, and skills as a foundation for their leadership identity but were also simultaneously able to experience how the AS training was being delivered and how they could do the same, to repeat the pattern of learning in their schools. To elucidate, the context was created for principals to participate in meaningful learning experiences through the AS training and, in response,

provided concrete ways they could lead and facilitate shifted learning experiences for empowering others in their schools. Hence, the participating principals perceived the very format of the AS training as creating a shifted learning experience, one that does not follow more typical preparation programs. This allowed for a similar learning design to be brought to and spread in their schools. Jensen et al. (2017) provided support when she articulated that the ability to facilitate teacher learning, through adult learning-oriented experiences, must also extend to principals' own learning experiences, which the AS training provides.

The AS curriculum addresses learning in specific and practical ways that support the theoretical knowledge regarding leadership. The practical application of AS allows for ways to build a shared vision, engage in collaborative inquiry, and de-privatize teacher practice, for example. To be clear, principals are typically knowledgeable about leadership theories but do not learn how to enact, let alone skillfully, what they know through traditional graduate programs, since typical training programs for the principalship are insufficient or current enough for the demands of the job (Churchley et al., 2015; Cunningham et al., 2019; Darling-Hammond et al., 2005; Pollock & Hauseman, 2015). Therefore, noting the AS training delivered specific tangible ways to facilitate group learning that extended beyond academic information is significant.

Further, the principals had time within the training to engage in and practice the tools they were learning by going beyond a lecture format and interacting with others. The AS training design, content, and interactive nature meant a professional learning experience was delivered that is a move away from what some authors refer to as a mechanistic, paint by number design that can be more typical in workshops or conferences when informational learning is prioritized (Powell & Kusuma-Powell, 2013). Crow and Moller (2017) have argued that traditional leadership programs have primarily emphasized skills, which they describe as "technocratic" in

nature and do not match the learning needs of leaders today due to the complex challenges they encounter. More traditional learning formats target the lower levels of Dilts' (2014) Nested Levels of Learning, the behaviour level, without an intention placed on expanding capacity or prompting internal changes through identity or values-based work, that would be more influential and transformational on one's leadership identity (Powell & Kusuma-Powell, 2013). Based on the perceptions of the principals in this study, the AS training is an example of a learning experience that can do this.

Moreover, constructing meaning, through understanding new concepts, practicing skills, engaging in dialogue, and reflecting during the AS training, corresponds with what others recognize as applicable for adult learning, that is, through the application of andragogical principles (Breakspear, 2017; Knowles, 1980; Loeng, 2018; Machynska & Boiko, 2020). Machynska and Boiko (2020) highlight Knowles' (1980) theory of andragogy to support adult learners as individuals who have a reservoir of experience, who have an identity as an adult, and who possess a need for self-directedness in their learning. Given the emergence of the principals' leadership identities in this study to be fundamentally about empowering others, it is key to note Knowles' (1980) stress on self-directedness for adult learners, since such a focus would likely correspond with being empowered.

To postulate, it appears evident that the principals' shifted learning experience through the AS participatory format supported their own empowerment and self-directedness to bring what they learned to their leadership. This subsequently initiated the foundation for principal leadership identities that cultivated others' empowerment and self-directedness within their school. There appears to be a fractal pattern that occurs through such a model of collaborative learning that is evident in the AS training; that is, it is experiential, embeds practice, and a self-

similar learning model can continue to ripple out and spread to others in schools as leaders use what they have learned to empower others, rather than direct them. As educators learn the AS concepts, processes, and skills, they are potentially further empowered and self-directed to spread what they have learned.

Notably, the complex problems and challenges that the study participants applied the AS training to were varied, whether focused on racial equity, self-regulation, academic instruction, or sexual orientation and gender identity, for example. Yet, they believed they were still able to utilize what they learned in substantial ways. The AS training provided a learning experience that fostered principal leadership identities that were flexible and adaptive to the settings in which they lead. A shifted learning experience that went beyond traditional give and get delivery was critical to accomplish this.

Implementation Challenges

In three instances the school or district environment was not conducive to welcoming AS practices and problems ensued. While Finn, Bruce, and Heidi experienced success with AS implementation, they also encountered difficulties in their systems; this is noteworthy for exploration since each of these experiences has similarities. For Finn, the school and district context created initial challenges due to an entrenched, significantly needy school culture within a system that prioritized a prescriptive, mechanistic approach to learning. For Bruce, when he was initially a principal, early in his understanding of AS, he faced difficulties at the school level. He strove to survive the difficulties, and in a sense, was absorbed by the dominant, negative school culture unable to make significant gains with AS practices. When Heidi moved to a principalship in which she was the sole leader with an AS informed leadership identity, she was confronted with pushback when an important decision needed to occur in her school. The

district simultaneously seemed to misunderstand or be unwilling to embrace or consider Heidi's leadership and the AS informed decision process she facilitated with the teachers.

It is understood here that within complex adaptive systems (CAS) contributing forces create ever-changing contexts for leadership that are non-linear, nor cause-and-effect (Kershner & McQuillan, 2016). Reasons for why these principals encountered challenges provokes questions about what may be needed in schools or districts for the AS training to have a more likely and promising trajectory. It is my assumption that when AS practices come to traditional districts, AS may be misunderstood since traditional hierarchies tend toward a more complicated system approach by overtly and covertly over-valuing efficient, rational decisiveness to solve problems to surrounding educator and student learning needs; with leadership identities that direct others rather than prioritizing empowerment. In contrast, the AS training values time for process and dialogue to build collective engagement through co-construction and aligns with more horizontal, distributed leadership identities. I would add that those traditional systems may tend to prioritize more male-dominant leadership styles. However, more feminine styles are also necessary and critical given the complexity of education today. It seems, then, that within more traditional, complicated preferred systems, a move towards district leaders understanding CAS is necessary to support more integrated leadership approaches and diverse leadership identities, both masculine *and* feminine. Besides minimizing the personal and professional costs some principals might encounter when implementing AS, such as those Finn, Bruce, and Heidi endured, this is essential because leaders must tackle complex challenges within the principalship and a traditional, complicated system approach will not solely contribute to successful change.

Additionally, derived from their difficult experiences, is the suggestion to have more than one leader in a school or district trained in AS. A team of AS-trained leaders would contribute to collaborative leadership for more fruitful implementation. In relation specifically to the AS training, participants may benefit from being informed more explicitly about potential chaos that they may encounter, to prepare for and consider what might be ways to positively proliferate the AS work without such unanticipated consequences and personal or professional costs.

Thinking Collaborative Considerations

Principals in this study relayed some frustrations or concerns about Thinking Collaborative (TC), the organization that leads and promotes the original work of the AS founders, Garmston and Wellman (2016). It is important to explore and weigh the participants' feedback to continue to evolve and develop the AS training for today's leaders. Consequently, the discussion delves into these topics related to racial inequity, the need for adaptability during a pandemic, and the wish for further Canadian accessibility to AS involvement.

Racial Inequity in Thinking Collaborative. Some principals noted a dominant representation of White leaders within TC that was viewed as problematic. These school leaders have recently engaged in a deep exploration to understand racial inequality within their systems, which informed their observations. To remind, the originators of the TC work are three White males, and three White females are currently the co-directors. Further, the Training Associates for TC, are also predominantly White, with very few other races represented.

TC is an example of many organizations in North America where White representation dominates. This issue is not unique to TC since race-related gaps are pervasive in society in all areas and speaks to the much-needed attention, growth, and transformation that is essential to dramatically improve racial representation (Diem & Carpenter, 2013; Swanson & Welton, 2018).

Unquestionably racial equality is more than adding racial representation but needs to go further to dismantle White privilege. In relation to organizations that train educational leaders, meaningful engagement in racial inequality learning must occur. More precisely, the representation of racially diverse and racially conscious leaders must exist in organizations, such as TC, that train educational leaders. In truth, because school leaders possess great responsibility and power, they need to understand White privilege in education and do all they can to disrupt and counter it to indeed be capable of serving all learners. For my own reflection, I had noted the white representation at the upper levels of the TC but hadn't observed this within the group of Training Associates on the website until it was indicated to me. I believe this speaks to my own White privilege which I need to examine and develop consciousness of. Certainly, the collective work of confronting racial inequality within TC is vital for AS training during complex times.

Some participants raised questions about the norms of collaboration in connection to racial inequality. For instance, when groups are racially diverse, or predominantly White, some voices might be perceived as more valuable. To ensure those who are "putting ideas on the table" include racially diverse perspectives, this norm needs further exploration. Also, the norm of "presuming positive intentions" may miss the mark for raising consciousness and responsibility that is required by some, such as White group members, to ensure the impact of white privilege is more central for consciousness development. As a result, this question surfaces: As reflective and committed leaders participating in implementing or leading AS practices, in what ways might racial equality be further addressed within the norms of collaboration to ensure all voices are heard and valued?

Adaptability of AS during a Pandemic. A foundational AS concept is adaptivity, which is explained in the AS training and resources to mean "changing form while clarifying identity"

(Thinking Collaborative, 2019) to target the need for clear leadership identities within the context of the necessity for the ongoing changing form of schools, learning needs, and contexts. Some principals shared their frustrations with the rigidity of the AS training at times and the perceived lack of adaptability during the Covid-19 pandemic. This pandemic was and continues to be an opportunity for adaptive responses to shifting who we are alongside what we decide to be fundamentally compulsory for our global leaders and learners and how we do so. Further consideration of what being adaptive means for TC is needed.

Canadian Accessibility. Some Canadian participants expressed disappointment in their interview when they experienced times when they were unable to access the AS training due to the distance involved. Some mentioned not being invited to be part of the organization's initiatives when opportunities arose. There may be a tendency for Thinking Collaborative to be American centric by the nature of being in the United States and an American organization. Yet TC serves international educational leaders, beyond Canada. According to the website, other countries also offer the AS training with the support of Training Associates in places including Australia, Chile, Ethiopia, Jordan, Malaysia, and Saudi Arabia. Perhaps consciousness is needed to elevate awareness regarding potential discrepancies in accessibility, to ensure "organizational-directedness" continues beyond America.

Considering the aforementioned TC considerations on racial inequity, adaptability during a pandemic, and Canadian accessibility there is a foundational AS concept that inform possible ideas for where to go next. The three AS key questions provide the over-arching prompts to promote deeper reflection, that is, (1) Who are we? (2) Why are we doing this? (3) Why are we doing this this way? As TC has grown and undoubtedly influenced the development of international educational leadership identities, delving into these questions from an international

lens is paramount to indeed live and breathe the values of this most relevant, needed organization. These three key questions also can disrupt the dominance of White representation within TC. To be clear, when we ask, “Who are we?” and note that “we” are mostly White, the other two questions beg investigation to intercept White privilege within the TC organization, further inviting adaptivity during a pandemic, and Canadian accessibility to inquire into why we do what we do.

Key Takeaways

In consideration of the findings of this study and the larger context of the complex systems in which principals current lead in, the below key takeaways are identified to inform the recommendations that follow.

1) **Training that focuses on leadership identity has value and can influence practice.**

For the principals in this study, whether they found the AS training to be transformational to their leadership identity or whether they already possessed clear leadership identities and gained understanding on how to lead, the AS training had an influence. This illuminates that short-term, specific training that is thoughtfully designed and includes relevant content and practice can have an influence on ways principal’s lead. Certainly, as Bush (2009) advised, principal development planning needs thoughtful consideration.

2) **Training takes time and on-going practice to have an influence on leadership identity.**

To have an influence on one’s leadership identity, time to learn new ways of thinking and approaching principal work with embedded reflection and practice clearly seems worthwhile. Because it appears that the AS training is one example of learning that may be described as a powerful learning experience (PLE) which is also advocated for principal development

(Cunningham et al., 2019), investing in time for training and practice is beneficial. In a PLE, these authors explained that an emphasis is placed on extending learning beyond declarative knowledge that is typical of principal leadership programs since it is seen as insufficient for principal preparation (Churchley et al., 2015). Perhaps more importantly, Cunningham et al. (2019) shared how investing in procedural and contextual knowledge is especially beneficial since it more aptly applies to current leadership learning needs. These kinds of knowledge reflect a necessity for principals to possess facilitation skills and the ability to use norms of collaboration as taught in the AS training, for example, alongside the understanding of CAS that is so critical for leaders today.

Again, such a training focus in relation to the development of one's leadership identity and how one makes choices takes time to practice and internalize. Just as educators' endeavor to move away from traditional lecture formats for students, so too must leadership learning facilitators move away from such approaches for leaders' identity development and include andragogical principles for adult learning (Jeannes, 2021) with the time required to do so. Certainly, time *is* of the essence - to prioritize time and to provide time for rich adult learning experiences - since today's complex times demand it.

3) **Understanding CAS can help principals see their schools differently and assist them to possess new and relevant frames of reference on how they enact their role.**

Principals were influenced by their new understanding of CAS that they developed through the AS training. They were further equipped to see their systems differently by their new frames of reference. In turn, it seems this influenced how they more flexibly demonstrated their leadership identity by relinquishing control and being more open and responsive to co-construction of ideas with educators in their schools. In contrast, it would appear leaders who

solely view and approach system challenges from a complicated system lens, Maslow's (1908-1970) law of instrument comes to mind. He articulated the idea that if the only tool one has is a hammer, one tends to see every problem as a nail. When principals comprehend CAS, they can more ably address the complexity they encounter beyond one tool or one way of seeing their system, that is, as complicated. To be clear, the concept of CAS was highlighted as critical for leaders to comprehend due to the complex challenges today and was repeatedly stated in the literature (Breakspear, 2017; Cuban, 2010; Garmston & Wellman, 2013, 2016; Gilstrap, 2005; Kershner & Mcquillan, 2016; Wheatley, 2006).

4) **Understanding CAS can help system leaders see their systems differently and assist them to possess new and relevant frames of reference and leadership identities to better support principals to address the complexity they encounter.**

The system context can be significant for successful implementation of training that targets principals' leadership identity and a comprehension of CAS. It was evident with the principals in this study who worked in systems that embraced AS, that they were better able to implement the AS training they had learned due to the district support they received. In these systems there seemed to be more of *a collective leadership identity match* across the system. Put another way, the multiple system identities within the district - from classroom, to staff, to school, to district – may have possessed a fractal pattern similarity making it more feasible to bring more informed approaches to address complexity in their systems. Alternately, the principals who had difficulty implementing the AS training worked in systems at the school or district level that appeared to not be in alignment, characteristic of what may be deemed less than effective systems (Garmston & Wellman, 2013, 2016).

To extend this line of thinking, fostering system leader identities would also be relevant in which they too comprehend CAS and see their system differently. Such district leaders would predictably be more capable of cultivating empowered principal leadership identities that are able to build collective ownership of learning and leadership in their schools. These system leaders would seem to be more skillfully able to go beyond traditional, procedural emphasized leadership approaches that reflect a solely complicated system approach. I surmise that in typical systems an importance may tend to be placed on routinization (Lumby & English, 2009), chain of command, adversarialism, and directive communication that may thwart the creativity and emergence of ideas that is of desperate need, let alone tend to diminish principals' leadership identities and capacity to address complexity. Furthermore, in typical systems, time for building shared ownership and collective co-construction of school learning goals may not be valued or prioritized, nor is deeper listening to prompt reflection in psychologically safe ways. I predict system leaders would be stressed themselves and stuck in on-going reactive modes with principals that perpetuate the traditional status quo and unwittingly do not effectively address the diverse student learning needs that exist, a travesty to be sure.

5) **Training that focuses on principals learning to facilitate and lead teacher learning has value and can influence practice.**

Possessing the skills and mindsets to be a leader for learning surfaced as relevant for principals in this study as they enacted their role in response to the AS training. Being able to enable collective participation in school learning to address diverse student learning needs is believed to be a necessity. As Fullan and Hargreaves (2015) suggested, leaders can use the group to change the group to engage in collaborative inquiry and alter ways of classroom teaching and

learning. To do so intentionally and skillfully, principals who can facilitate and lead adult learning in their schools has heightened value and importance (Breakspear, 2017).

6) Tr**aining can be particularly valuable when it can be flexibly applied to various contexts and issues**.

Principals in this study applied the AS training to diverse issues and challenges that they encountered in their schools. It is suggested, then, that training is especially valuable when it includes ways to address varied problems. Gone are the days of implementing similar shrink-wrapped programs and packages across schools in a system. Training that reflects nimble and responsive application, it seems, would be a hallmark of current essential leadership learning. It follows that such training flexibility relates to the need for adult learning experiences that are tied to specific challenges and local contexts in order to be of most applicability and benefit (Crane et al., 2018; Davis & Leon, 2011; Loeng, 2018). In addition, the training itself needs to be flexible and adaptive when emergent mutable realities impact how training can be delivered. In the case of AS during the pandemic, this surfaced as an issue when face to face trainings were not moved online and yet continued to be needed.

7) **Training that includes dialogue and norms of collaboration may create cultures where difficult conversations about race can flourish.**

Principals in this study applied dialogue structures and norms of collaboration as foundational skills to inform their leadership identity. They articulated how these deliberate conversational approaches influenced the ability for them to support staff to delve into tough topics safely and deeply. They were better equipped to surface assumptions and beliefs that were underlying teacher practice and ways they perceived their work and students. Because traditional teaching practices no longer meet the mark for addressing student diversity, let alone the needs

of Black and Indigenous learners, for instance, the capacity to talk about race to increase collective consciousness is critically necessary (Swanson & Welton, 2018). Indeed, it seems that when White educational leaders, which include White teachers, "reflect on and understand their own cultural or White ways of knowing, they are in a position to work toward dismantling the persistent White supremacist ideologies that denigrate the intellectual contributions of others" (Theoharis & Haddix, 2011, p. 1336). Effectively structured dialogue is one tool that can contribute to such key conversations to uncover and examine systemic problems related to racism.

8) **Leadership identity training should include explorations of racially diverse environments and racial needs that principals face in their schools.**

Further to the above, it was illuminated within this study the critical need for principals to possess increased awareness for understanding racial inequity issues due to the responsibility and power they wield to impact marginalized students' learning. Theoharis and Haddix (2011) noted the dominance of White leaders in public schools and promoted the work of addressing racial issues to White leaders, rather than relegating this to leaders of colour; White supremacist views must be transformed. Thus, training that embeds a focus on developing equity-mindedness for principals is of topmost priority (Cunningham et al., 2019; Swanson & Welton, 2018; Theoharis & Haddix, 2011).

Recommendations for Practice

In the introduction of this dissertation, I explained the value of this research for specific groups, namely for (1) individual principals and vice-principals; (2) school system leaders, such as the British Columbia Principals and Vice-Principals Association, the British Columbia Ministry of Education, or other similar provincial or state ministries, and school district leaders

who make decisions about supporting the development of school administrator leadership identities; and finally (3) the organization of Thinking Collaborative who deliver the seminars in North America and around the world. With the findings described in this dissertation, and the key takeaways that have been outlined, recommendations are described next.

Recommendations for Principals and Vice Principals. The focus of this study has been on principals and ways the AS training influenced their leadership identity. Due to the clear influence the AS training had on study's the principals and their leadership identities, specific recommendations can be made for their consideration:

1. Consider taking training, such as AS, that emphasize leadership identity to support your leadership development.
2. Consider and reflect on your leadership identity as specifically as one who empowers and fosters self-directness in others.
3. Consider training that builds your identity and skills as a "leader for learning."
4. Consider your leadership identity in relation to your system's collective leadership identity and the three key AS questions. Foster dialogue to promote collective leadership identity awareness to inform collective work for student learning.
5. Develop an understanding of CAS to support how you see and respond within your system in relation to the complex challenges you encounter.
6. Learn how to facilitate and lead learning in your school by using processes and skills such as dialogue and discussion, norms of collaboration, and meeting standards. Apply these approaches to local challenges.
7. Increase your understanding of White privilege; become racially conscious; seek diverse representation within your school and among your colleagues.

The list of recommendations will support the growth of principal leadership identities who can be better equipped to address complex challenges.

Recommendations for System Leaders. All those interviewed found the AS training helped principals with understanding and building their identity. Given that research suggests leadership identity impacts principal performance (Crow et al., 2017; Cruz-Gonzalez et al., 2021; Ibarra et al., 2014), districts should consider investing in identity development professional development, like that offered by AS. It is suggested that system leaders at all levels become more familiar with the importance of one's leadership identity for effectiveness in schools. Moreover, understanding CAS, and practices such as AS training, which may promote strong collaborative structures in schools, is also advised. Specific recommendations are as follows:

1. Encourage leaders to participate in training that fosters leadership identity and ensure more than one leader completes it.
2. Seek to understand, support, and promote the importance of leadership identity in connection to professional development initiatives within the system and principal leadership.
3. Learn about CAS in relation to and in contrast to complicated systems to understand how CAS principles can be included and embraced in the system to support principals' abilities and your own ability to address complexity.
4. Develop teams of principals who bring CAS approaches to system schools to ensure they have the support and ability to address the complexity in schools today.
5. Participate in leadership identity training with principals to understand and use it, and to empower principals.

6. Learn and use processes and skills such as norms of collaboration, dialogue and discussion to model the way for your principals.
7. Apply the dialogue and discussion processes and norms for collaborating to local and provincial or state challenges, such as Indigenous education and Truth and Reconciliation efforts; trauma-informed practices; gender identity; and specific district related goals.
8. Increase your understanding of white privilege; become racially conscious; seek diverse representation within your system and among your colleagues.

While these suggestions may take time, the challenges of the principalship arguably provoke these as crucial to ensure not only the longevity of principal careers, but also the presence of skilled leaders with clear, current leadership identities that foster group-directedness among educators for the goal of effectively targeting today's student learning needs.

Recommendations for Thinking Collaborative. Given the central, foundational concepts, processes, and skills that Thinking Collaborative (TC) provide through the AS training, that influence the positive development of principal leadership identities, the following specific recommendations are made:

1. Explore and support adaptive ways to deliver the AS seminars through online platforms to ensure the AS training can continue during a pandemic and to model the way.
2. Include AS training content that more explicitly examines how to manage potential implementation challenges.
3. Include content related to racial equity within AS training to raise racial consciousness through the AS work.
4. Invite an international, racially diverse team of AS trainers to explore ways to ensure further accessibility of TC and AS involvement.

5. Invite an international, racially diverse team of AS trainers to explore the review and contemporizing of the norms of collaboration.
6. Establish an on-going timeline to continue to demonstrate adaptability, racial diverse representation, and racial consciousness within TC.
7. Seek and promote the development of racially diverse representation of AS Training Associates.

Through attention to these recommendations Thinking Collaborative's ongoing work can continue to potentially flourish in keyways, to continue to influence principals' leadership identities and self-directedness in other leaders as well.

Recommendations for Future Research

While this study clearly revealed the influence of AS training on the development of principals' leadership identities, limitations to the research that can inform potential future explorations exist. Given the qualitative approach of this study with a small un-representative sample, the power of the findings suggests a number of future studies be undertaken. A larger study or multiple other studies with more participants that are truly representative of principalship, and other leadership roles makes sense. Perhaps specific studies on just principals, system leaders, for instance, are needed, or at least studies that examine if there are differences in their reactions and outcomes. In addition, studies need to include analyses on the impact of leadership identity on differences such as school level (e.g., elementary, secondary, etc.), gender, race/ethnicity, urban versus rural, leader years of experience, and leader types of training. Developing leadership identity likely is different for differing groups. Studies of this nature, along with ones previously suggested about examining various outcomes of leadership

identity training, will help discern the importance and power of this growing area of interest in the leadership literature.

In the discussion portion of this chapter, I include questions about whether the principals in this study were at an adult developmental stage of being "self-authored." There are hints that this may be the case, due to the revelation that the principals' understanding of CAS contributed to being more grounded, calm, and neutral, for instance. Therefore, I recommend future research to investigate if this is true. To do such a thorough study, a subject-object assessment tool (E. Drago-Seversen, personal communication, January 25, 2022) would be necessary with quantitative analysis to determine if this is indeed the case. Because educational researchers advocate self-authored leadership identities, this kind of study appears to be a worthy endeavor.

Conclusion

Black social justice facilitator, Brown (2017) describes her love of the resilient and hardy dandelion; for this dissertation's ending, I have borrowed it as an affirmative fractal metaphor to weigh and to consider principal leadership identities and their potential. To explain further, Brown is excited by this weed because of its "clarity of identity," alongside its influential healing properties. She admires dandelions since they "spread . . . their community structure, manifesting their essential qualities . . . to proliferate and thrive in new environments." While typically an annoying lawn visitor-to-stay-and-to-expand, she observes that these life forms "evolve while maintaining core practices that ensure their survival" (p. 9).

Cultivating the essential adaptive work in schools of shared ownership of student learning within collaborative teams, the 12 highly regarded North American principals in this study possess identities that are motivated to resemble the dandelion. Their very identities, undeniably in view, strove to nurture thoughtful school involvement through the intentional application of

the AS training they have internalized: to engage, to empower, to *spread* others' developing leadership identities. With a clear determination not to micromanage or direct, these leaders endeavor to create conditions to collectively prompt and inspire learning in others, so those they lead, too, can proliferate self-similar qualities, - to listen, to inquire, to understand, to co-construct, to choose, to be - in essence, to foster reciprocal, adaptive leadership identities that can skillfully address complexity. Indeed, "what are we as humans" as leaders? "What is our function in the universe" of complex schools (Brown, 2017, p.9)?

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Appendix A: Invitation to Participate

My name is Lucinda Wolters and I am a Doctor of Education candidate working under the supervision of Rick Ginsberg and Lisa Wolf-Wendel in the Department of Education at the University of Kansas. I also am currently the Principal of Arden Elementary School in the Comox Valley, British Columbia, Canada.

As part of my doctoral dissertation, I am conducting a study on school principals and the influence of Adaptive Schools Training. The purpose of this study is to understand how the Adaptive Schools training has potentially influenced the development of principals' leadership identity.

Given your position as a school principal in North America, who has also taken the Foundations and Advanced Adaptive Schools training, I feel that you are well suited to provide insight into this topic and I would like to invite you to participate in this study.

If you decide to volunteer for this study, your participation will consist of a one-on-one semi-structured interview via Zoom that will take approximately 60-75 minutes of your time. With your permission, I would like to video record the interview to ensure accurate transcription and analysis.

If you would like to participate, I've attached the informed consent form to be completed prior to the interview. Please email me at Lucinda.wolters@ku.edu.

If you require additional information to assist you in reaching a decision about participation, please do not hesitate to contact me.

Sincerely,

Lucinda Wolters
Doctoral Candidate, University of Kansas
Principal, Arden Elementary School
Comox Valley Schools, BC, Canada

Appendix B: Informed Consent

TITLE OF STUDY
The influence of Adaptive Schools Training on the Development of Principals' Leadership Identity

PRINCIPAL INVESTIGATOR	FACULTY SUPERVISORS
Lucinda Wolters Kansas University Department of Education – Leadership and Policy Studies Doctor of Education lucinda.wolters@ku.edu 250-218-7564	Rick Ginsberg, Ph.D. Dean for School of Education & Human Sciences The University of Kansas ginsberg@ku.edu 785-864-9725 (office) Lisa Wolf-Wendel, Ph.D. Associate Dean for Research and Graduate Studies Professor of Higher Education Administration School of Education The University of Kansas lwolf@ku.edu 785-864-9722 (office)

Purpose of the Study
I am conducting a study on principals who have taken Adaptive Schools training. The purpose of the study is to describe the potential influence of Adaptive Schools training on the development of principals' leadership identity.

Procedures
I will be conducting interviews through Zoom. Each interview will take approximately 60-75 minutes and I will ask you 15 questions with follow up questions as needed. Your participation is voluntary. You are able to stop the interview at any time to take a break or to end the interview.

Risks and Discomforts
I do not anticipate any risks from participating in this research.

Benefits
You will have the opportunity to share ways the Adaptive Schools training may have influenced your leadership identity, which will add to the literature on principal leadership identity development. By participating in this interview study, the information you share may inform principal leaders and their leadership identity development.

Compensation for participation
Participants in this study will not be receiving compensation.

Audio/Video Recording
This interview will be video recorded through Zoom. The video recording will be stored on a password protected external storage device. The video recording will be destroyed on December 31, 2023.

Please sign below if you are willing to have this interview video recorded. You may still participate in this study if you are not willing to have the interview recorded.

☐ I do not want to have this interview recorded.

☐ I am willing to have this interview recorded.

Privacy/Confidentiality/Data Security
Any identifiable information (name, school district, school sites, other persons mentioned in the interview) will be assigned unique codes in transcriptions, data analysis, results discussion and any written or oral presentation of the study.

Video recordings, transcriptions, and reports will be kept on a password-protected external storage device. Handwritten notes and communications will be kept in a locked filling cabinet.

Please note that email communication is neither private nor secure. Though I am taking precautions to protect your privacy, you should be aware that information sent through e-mail could be read by a third party.

Your confidentiality will be kept to the degree permitted by the technology used. We cannot guarantee against interception of data sent via the internet by third parties.

Sharing De-identified Data Collected in this Research
De-identified data from this study may be shared with the research community at large. I will remove or code any personal information that could identify you before files are shared with other researchers to ensure that, by current scientific standards and known methods, no one will be able to identify you from the information we share. Despite these measures, we cannot guarantee anonymity of your personal data.

Voluntary Participation
Participation in this study is voluntary, you may refuse to participate before the study begins, discontinue at any time or skip any questions that may make you feel uncomfortable.

If you have questions
Please ask question you have now. If you have questions later, you may contact me at Lucinda.Wolters@ku.edu or at 250-218-7564.

Statement of Consent
I have read the above information and have received answers to any questions I asked.

I understand if I have any additional questions about my rights as a research participant, I may call (785)864-7429 or (785) 864-7385, write the Human Research Protection Program (HRPP), University of Kansas, 2385 Irving Hill Road, Lawrence, Kansas 66045-7568, or email irb@ku.edu.

I consent to take part in this study.

Your signature_____Date_____

Your name (printed)_____

Signature of person obtaining consent_____Date_____

Printed name of person obtaining consent_____

Appendix C: Semi-Structured Interview Protocol

Introductions
Many thanks for being willing to participate in this study. I sincerely appreciate your time and input today. To begin, I would like to share more about myself. I am currently an elementary school principal for Comox Valley Schools on Vancouver Island. I am also a doctoral student in the Educational Leadership and Policy Program through the University of Kansas. Through my study, I am interested in exploring the influence of Adaptive Schools Training, that is, attending the Foundations and Advanced Seminars, on principals' leadership identity.

Informed Consent
The interview today will take approximately an hour. At this time, are you interested in participating? Wonderful! First, I need to review the consent form with you, so you are clear and I can answer any questions you might have. After that, if you could please sign the form, we can get started. Thank you.

Recording / Transcription
If you are comfortable, I would like to record our interview so I can refer back to it and take notes in response to it afterwards. Do you give permission for me to record this interview?
If No – Thank you for letting me know. So instead of recording it, I will take notes of your responses.
If Yes – Thank you. If at any time, you want me to stop recording, please let me know and I will do so.

Confidentiality / Pseudonym
To help me protect confidentiality in this study, I would like to choose a different name, a pseudonym, that I will use when referring to you. I won't be using your real name to keep your identity private and confidential. Do you have a particular name that you would like me to use? I can create a name as well if you prefer.
As we begin, please know that whatever you have to say is helpful and I want you to feel comfortable to share your thoughts, feelings, and perspectives. There are no correct answers. Do you have any questions before we begin?

Interview Questions
Background Information and Building Rapport

1. Please share a little bit about yourself (career path, family, current role).
2. Please share your prior training to become a principal and your professional development as a principal.
3. How might you describe yourself as a leader?
4. What things have influenced you as a leader?
5. When you think about leadership identity, what does this mean to you?

General AS Responses and Impressions

6. Why did you participate in the AS Foundation Seminar? Why did you participate in the second one?
7. What were your initial thoughts, feelings, and reactions to your experience of the AS Seminars?
8. How have the seminars been helpful to you? How have they not been helpful?

Specific AS Responses and Impressions

9. Are there things you learned that you use in your leadership role in schools?
10. In what ways, if any, did the learning about adaptivity and complex systems influence your learning and leadership identity?
11. In what ways, if any, did learning about dialogue and discussion processes influence your learning and leadership identity?
12. In what ways, if any, did the learning of particular skills influence your leadership identity? (such as, norms of collaboration, group member capabilities, energy sources).
13. How influential, if at all, would you say the training has had on your leadership identity? How do you know?
14. In what ways, if any, would you say the way the training was delivered contributed to your learning and leadership identity?
15. What advice would you give to strengthen the training?

Closure

Thank you very much for your input. It has been very helpful.

In the next few weeks, I will reach out via email with a transcript of your interview as well as notes on my understanding and interpretation. It would be great if you could take a look and let me know your reactions and feedback. I am seeking clarification that my interpretation is accurate. Thank you for your time.