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Title of the thesis

*Leading, teaching and learning “in the Middle” – An international case study narrative
examining the leadership dimensions, instructional practices and contextual philosophies
that have transformed teaching and learning in the middle years.*

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Abstract

Through the exploration of the lived experiences, beliefs and values of instructional leaders, lead teachers and students in Finland, Germany and Canada, this study seeks to answer the question, “What factors contribute to the establishment of developmentally responsive, intellectually engaging middle level learning environments for early adolescents?” Provoked by current research emerging from the Canadian province of Manitoba calling for the transformation of middle level learning environments, leading, teaching and learning in the middle years are examined through the lens of Robinson’s (2011) “leadership dimensions,” Friesen’s (2009) effective instructional practices and Dweck’s (2008) “growth mindset.” Consideration of these three research perspectives in the context of early adolescent learning and middle level learning environments, placed against an international backdrop, provides a previously undocumented perspective into this phenomenon.

Aligning with a social constructivist, qualitative research paradigm, the research design for this study incorporates collective case study methodology, along with constructivist grounded theory methods of data analysis. Three case study narratives are used to share the rich stories of study participants in Finland, Germany and Canada, selected using maximum variation and intensity sampling techniques. Interview transcript data was coded using processes outlined in Charmaz’s (2006, 2012) constructivist grounded theory. A cross-case analysis yielded a conceptual framework, highlighting key factors that were found in the data to be significant in the establishment of developmentally responsive, intellectually engaging middle level learning environments.

Although this study focuses on 12 schools in Finland, Germany and Canada, it informs the practice of all those working with early adolescent learners in middle level learning environments in all corners of the globe. Using the insight and practical wisdom

shared by study participants as a catalyst to reflect on and question current practices related to leading, teaching and learning in middle years will provide educators and education systems around the world with the awareness needed to support the next generation of early adolescent learners.

Keywords: middle level learning, middle years, early adolescents, early adolescence, instructional leadership, leadership dimensions, instructional practices, student agency, developmentally responsive, intellectually engaging

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I am a part of all that I have met.

-From Ulysses, by Lord Alfred Tennyson

Dedication

This work is dedicated to my mother, Dianne, who has sacrificed so much for me. You are my inspiration, my rock, my biggest cheerleader and my best friend. I feel so very fortunate and privileged to have had the opportunity to learn from you, laugh with you and explore the world together. For me, you are without a doubt, the most exceptional instructional leader the world of education has ever been blessed with. Your life's work has demonstrated wisdom, vision and compassion and continues to inspire me every day. I love you.

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List of Abbreviations

APA	American Psychological Association
ASCD	Association for Supervision and Curriculum Development
AMLE	Association for Middle Level Education
CEA	Canadian Education Association
CMEC	Council of Ministers of Education, Canada
FNBE	Finnish National Board of Education
GDR	German Democratic Republic
IPP	Individualised Program Plan
NSW DET	New South Wales Department of Education and Training
OECD	Organisation for Economic Co-operation and Development
OISE	Ontario Institute for Studies in Education
PD	Professional Development
PISA	Programme for International Student Achievement
PLP	Personalised Learning Plan
PYD	Positive Youth Development
REM	Rapid Eye Movement
RTI	Response to Intervention
TALIS	Teaching and Learning International Survey
VET	Vocational Education and Training
WHO	World Health Organisation

Chapter One - Introduction: Why Middle Years, Why Now?

Children of the middle years do not do their learning unaffected by attendant feelings of interest, boredom, success, failure, chagrin, joy, humiliation, pleasure, distress and delight. They are whole children responding in a total way, and what they feel is a constant factor that can be constructive or destructive in any learning situation.

(Dorothy Cohen, 1988, p. 89)

Background and Significance of the Study

Anyone who has recently stepped into a middle years classroom knows all too well the truth of this portrait--the lived experience of these learners in our schools today. Early adolescents are truly a unique group of learners, like none other a teacher might experience--a group that at one moment will test a teacher's mettle and the very next bring so much elation and reward, that a teacher might even question how one could ever think of working with another age group of students. This is the appeal and the true curiosity behind the early adolescent learner and the heart of the research in this dissertation.

One does not enter into this field of education without being a bit of an idealist, a dreamer of sorts, believing in the magic that happens daily in middle level classrooms around the world. It is that relationship between teacher and student and the willingness to enter into a space where they become co-creators of learning that empowers individuals and unites communities--and in those amazing moments, lives are changed significantly forever. In a world that is becoming increasingly complex, it would be unreasonable to believe that the field of middle level education could remain unaffected by ever-changing societal expectations, demands and pressures related to the role education and educators play in preparing the world's children for life, work and beyond. What remains unchanged, however, is the need for early adolescent learners to have an education that prepares them for

this unpredictable world that lies outside the four walls of our schools--an education that will allow them to survive and thrive, but most importantly, an education that will unleash their natural curiosities and empower them to contribute to our world in a manner in which only they can. Understanding the unique developmental needs of early adolescent learners remains a key to ensuring their success in learning, yet decisions about middle level learning environments and programming for these learners are often based on budgets and capital plans as opposed to what will best support these learners through what can be a very tumultuous time. We cannot deny the very real stages of physical, emotional and social development and transition occurring for these learners; however, we need not perpetuate myths that associate early adolescence with distress, difficulty or suffering. If school systems attend to how these changes impact teaching and learning, middle level learning environments can achieve their potential in becoming remarkable places of learning, responsive to the unique learning needs of early adolescents.

Examine the research that has come from any Canadian province or territory in the past few years and you will see that on the top of the list of any priorities or initiatives is high school completion. Provincial and territorial governments have invested large amounts of time, money and human resources to this end. Much of the same research also points to the middle years as being an important determiner of high school completion; yet, far fewer resources have been devoted to understanding how to transform middle level learning environments in order to lay the proper foundation for success in high school and beyond. Research emerging from the Ontario Institute for Studies in Education (OISE) in 2008 related to education reform in the Canadian province of Ontario revealed that a key predictor for high school completion was an early adolescent's experience in their grade 9 school year. Consequently in Ontario, a considerable amount of resources went into better understanding the developmental changes early adolescents undergo, what they experience as students in

middle level learning environments and how to ensure these students are academically, socially and, most importantly, intellectually engaged in their learning. The province of Ontario saw a tremendous jump in their high school completion rate, increasing from 68 percent in 2004 to 75 percent in 2007. This upward trend has continued (OISE, 2008).

Other Canadian studies have shown early adolescent students as becoming increasingly disengaged and disconnected from their learning. According to one study, *Young People in Canada: Their Health and Well-Being*, early adolescents' behaviours and self-perceptions are closely related to their quality of life in school (Klinger, Mills, & Chapman, 2011). This study found that by grade 8 only 21 percent of girls and 16 percent of boys reported, "liking school a lot" (p. 52). Furthermore, 52 percent of girls and 54 percent of boys described their "teachers [as being] interested in them," and only 72 percent of girls and 70 percent of boys believed that, "most of their teachers were friendly" (p. 54). Similarly, a study sponsored by the McCreary Centre Society (2009) in British Columbia examined adolescents' perceptions of school and feeling connected to school and their learning throughout the adolescent developmental period. This multifaceted study generated troubling findings that characterised early adolescent learners as lacking any meaningful connection to school across all grades. Results showed a sharp drop in student connectedness to their learning from 23 percent in grade 7 to 7 percent in grade 10, with a slight rise to 12 percent in grade 12. Lastly, the multi-year, cross Canada, *What did you do in school today?* (2009) study (one of the few Canadian studies to solely examine the educational experiences of adolescent learners and the only Canadian study to focus on the concept of intellectual engagement) uncovered equally concerning results. The 2009-2010 *What did you do in school today?* survey results using responses from over 11,000 early adolescent learners showed 48 percent to be either apathetic or anxious towards their learning in language arts,

found little relevance in their learning or some combination of all three--and, the number dropped to 42 percent in mathematics (Willms & Friesen, 2012).

Combined, this evidence underscores the importance of a closer examination (and perhaps an examination through a different lens) of the experiences of early adolescents in middle level learning environments and the factors that contribute to the establishment of developmentally responsive, intellectually engaging learning environments for them. Therefore, the significance of this research can be found in the unique examination of the instructional leadership dimensions, teacher instructional practices, student agency in learning, and the interaction among all three elements, within the context of middle level learning environments in three international locations.

The methodology used to gain a better understanding of the lived experiences of instructional leaders (in most cases, the school principal), lead teachers and students in middle level learning environments is also significant. Acknowledging the highly diverse and complex experiences and contexts involved in middle level learning environments, it was important to select a methodology that would permit individuals in these three groups to openly share their distinct beliefs and experiences in a fashion that did not “lead” respondents and their responses into predetermined categories or themes. The semi-structured interview format allowed individuals to respond to general questions while also having the flexibility to elaborate with experiences specific to their context.

This study makes an important and unique contribution to the existing body of knowledge related to leading, teaching and learning in middle level learning environments and to the emerging understanding of the factors that contribute the establishment of developmentally responsive, intellectually engaging middle level learning environments. It is

hoped that this study will not simply live in the “academic world,” but will also be significant to the daily work of leading, teaching and learning in middle level learning environments.

The Framework for the Study

[Middle years learners] crave competence, self-definition, creativity, vividness in learning, emotionally safe environments, control/power over their lives, physical activity, positive social interactions with adults and peers, structure and clear limits, and meaningful participation in school/community. Most of all, they want to belong. Middle level teachers should be able to cite these attributes and many others without hesitation, and their lessons should reflect this expertise. (Wormeli, 2012, para. 14)

The framework for this study arose as a result of my experiences as a teacher, system specialist and instructional leader working in middle level learning environments for the past 13 years. In my work, my students have always served as that proverbial “North Star,” the compass that guides me, ensuring the central purpose of all I do rests in providing them with a learning environment in which they may develop and inquire, a safe place from which to launch the many journeys that will combine to form their formal education. The students who have held my curiosity and tugged at my heart strings have been those of the middle years--learners ages 10-15, who are undergoing changes so rapid, it can only be matched by changes experienced in infancy. Throughout my time working with early adolescents questions began to emerge about the role of the learning environment, the people in that environment, and how contextual philosophies in those environments may impact their experience as learners. More recently, in my role as a school-based assistant principal (and supported by professional learning led by the area education director of the large urban school district that I work for in Alberta), I have had the opportunity to put into practice in my school what I consider to be the best thinking available related to how leadership

dimensions, teacher instructional practices and honouring student agency in learning might interact to create a truly developmentally responsive, intellectually engaging middle level learning environment.

While many arguments can be found supporting either the early years (kindergarten through grade 4) or the high school years (grades 10 through 12) as being important for different reasons in a child's growth and development, it is the middle years that have often gone unnoticed. Much brain-based research has been devoted to understanding the tremendous changes early adolescents experience; yet, connecting that research to school-based practices for these learners has remained elusive in many cases. Truly understanding the unique developmental needs of early adolescent learners and how the multifaceted developmental changes they undergo during this period impact their experience in school is often overlooked as educators with good intentions engage in "strategy guesswork" attempting to create effective and appropriate learning environments and learning opportunities for these students.

In the 42 years since the Association for Middle Level Education (AMLE) established *This We Believe*, (16 fundamental recommendations that support teaching and learning in the middle years), their position on how key these recommendations are in establishing and sustaining a learning environment best suited for early adolescent learners has remained constant. As I walk into the middle level learning environments in my city, I see the AMLE recommendations hanging in classrooms and hallways, most often in the form of the popular *This We Believe* poster. Yet, in a very practical sense, there are few commonalities that exist among the 50 middle schools in my jurisdiction with regards to instructional leadership and teaching practices, as well as structures and programming for early adolescent learners. Even more apparent is the lack of coherent systemic adoption of any of the best-practice recommendations, regardless of the originating source--*Engaging Middle Years Students in*

Learning from Manitoba Education, This We Believe, Turning Points 2000, Breaking Ranks in the Middle or the numerous research studies originating from New Zealand, Australia and other locations around the world. The subsequent review of current literature will affirm that these observations are not isolated to my Alberta context and are, in fact, prevalent in middle level learning environments around the world.

International perspective. Based on my professional experience, passions and a significant gap I see in the research, the scope and intent of my study will focus on understanding how leadership dimensions, teacher instructional practices and the impact of student agency interact to support the establishment of developmentally responsive, intellectually engaging middle level learning environments. Further, I have included an international element in my research. Without an understanding and appreciation of other cultures and the unique histories, beliefs and contexts intertwined into their national identity which have consequently impacted their systems of education, we may miss valuable opportunities to learn from each other. This international examination of instructional leadership, teacher pedagogy and student agency will investigate trends and themes that emerge across middle level learning environments, placed against the backdrop of the three research perspectives underpinning my study, Viviane Robinson's *Student-Centered Leadership* (2011), Sharon Friesen's *Teaching Effectiveness Framework* (2009) and Carol Dweck's *Mindset* (2008).

Finland is considered by many to have one of the world's top performing education systems (Hancock 2011; Sahlberg, 2011). Education reforms in Finland have been described by some as emphasising teacher and student personal responsibility--where teachers are given the freedom to design the curriculum and students have increased choice in what they study (Hancock, 2011; Sahlberg, 2011). Principles 1 and 2 of the *Teaching Effectiveness Framework* ("teachers are designers of learning" and "work students are asked to undertake

is worthy of their time and attention”) (see Appendix F) developed as a result of the *What did you do in school today?* study and speak to the importance of autonomy (the type of autonomy believed to be afforded to Finnish teachers and their students) in creating meaningful and authentic learning experiences. The Finnish context will provide a thought-provoking narrative of how this much-admired system supports the unique and ever-changing developmental needs of early adolescents in what is viewed as a highly student-centered system of education.

Germany is currently undergoing significant reforms in their systems of education and teacher preparation as they work to challenge long-held beliefs about hierarchies and levelled systems of schooling. Once believed to be a symbol of national strength, the sifting and sorting of children into one of three tiers of school at the age of 10, is now believed by many to be a limiting factor in potential for student growth and opportunities (OECD, 2011). In response to what some described as “PISA shock,” Germany has, since the year 2000, seen a steady increase in Programme for International Student Assessment (PISA) scores in literacy, mathematics and science. Known for having a more decentralised system of education, the 16 German Länder (regions) have primary responsibility for what happens in schools and in teacher education programs. Reforms in teacher preparation programs are now underway in some German Länder, as educational leaders in the university system work to ensure teacher training programs reflect the changes primarily being seen in Germany’s secondary schools. The German context will provide a fascinating look into how the needs of early adolescent learners are being attended to, regardless of where the school falls in the current tiered system.

The education system in Canada varies considerably among the ten provinces and three territories. When Canadian results are profiled in international measures such as PISA or the Teaching and Learning International Survey (TALIS), the nation as a whole continues

to score near the top. These results, when further examined by province, reveal there is a large discrepancy in how individual provinces fare on the tests. A small number of provinces (Alberta, British Columbia, Ontario and Quebec) score, in all PISA tests, at the Canadian average and have in some cases surpassed the average Canadian results. The remaining six provinces score below the Canadian average and, in some instances, well below other Organisation for Economic Co-operation and Development (OECD) countries. It is interesting to note, however, that for the purposes of this study, some of the most significant work related to leading, teaching and learning in the middle years has come from another Canadian province, Manitoba. The province of Ontario, driven by research emerging from the OISE, has also recently been more intentional in the way they have supported and resourced their middle level learning environments (2008). The Canadian context will provide an intriguing examination into what impact the middle years movement has had on selected Canadian school contexts, almost 50 years after it originated just south of the border in the United States.

The Core Questions

Using a semi-structured interview format with instructional leaders and lead teachers and a small focus group format with students, I have attempted to draw out common themes related to the lived experiences and beliefs of these three groups in the context of middle level learning environments. The focus of all initial questions and subsequent follow-up questions centered on the discovery of factors and conditions that contribute to the creation of developmentally responsive, intellectually engaging learning environments for early adolescent learners. In developing questions for instructional leaders, lead teachers and students, I have used the following overarching questions as guides:

Overarching theme of questions. What factors contribute to the establishment of developmentally responsive, intellectually engaging middle level learning environments for early adolescents?

Instructional leader overarching question. Using the research articulated by Viviane Robinson (2011) in her book *Student-Centred Leadership* as a lens, “What leadership dimensions contribute to the creation of a developmentally responsive, intellectually engaging learning environment for early adolescents?”

Lead teacher overarching question. Using Sharon Friesen’s (2009) *Teaching Effectiveness Framework* as a lens, “What instructional practices do teachers draw upon that contribute to the creation of a developmentally responsive, intellectually engaging learning environment for early adolescents?”

Student overarching question. Using Carol Dweck's (2008) *Mindset* as a lens, “How do early adolescents articulate their needs in ways that contribute to the creation of a developmentally responsive, intellectually engaging learning environment?”

Research Paradigm, Study Delimitations, Limitations and Assumptions

When faced with the task of determining which research paradigm would best suit the questions I was seeking to answer, I struggled with what I felt were limitations, perhaps having more to do with the methodologies associated with a given paradigm, rather than the paradigm itself. I have always felt the nature of constructivist research (more specifically, social constructivist research), aligned most closely with my ontological and epistemological beliefs. In social constructivism, emphasis is placed on the important role culture and context play in understanding various societal experiences, whereby knowledge is constructed not in isolation but in a collective manner using the lived experiences of those involved (McMahon, 1997). There was another element that weighed heavily on my mind as I grappled with the

selection of research design and that was the ability to depict the rich stories I believed would emerge from the research sites I visited; I wanted to ensure my chosen methodology “did justice” to these stories. It was not until I read an article in the scholarly journal, *The Qualitative Report*, written by another doctoral candidate as she tried to make sense of her own research, that I truly felt I had found the right fit--methodologically speaking--for my own research (Lauckner, Paterson, & Krupa, 2012).

Lauckner's (2012) research focused on developing a framework for community development using her background and experiences as an occupational therapist as well as the perspectives of other occupational therapists. Lauckner presented a list of ten methodological questions she felt were critical in the decision making process she entered into related to her chosen research design and subsequent analysis of data (see Table 1). In what Lauckner describes as an “iterative dialectic between research topic and potential research methodologies” (p. 4) it was decided that the best method of ensuring she could present in-depth, descriptive case studies while also formulating a framework that might describe a process for community development, was a “collective case study design, combined with grounded theory analysis methods” (Lauckner et al., 2012, p. 4). Although Lauckner's chosen area of research (occupational therapy) is not in the field of education as my study is, it does fall within the realm of the social sciences; therefore, I believe the evidence she presents that supports her chosen research design to be applicable in my own research.

Narrative collective case study methodology. I will be employing a narrative, collective case study research methodology, as I believe it is the stories of instructional leaders, lead teachers and students in middle level learning environments that will be most powerful in illuminating for others the possibilities for transformation in the middle years of learning. Clandinin and Connelly (2000) refer to narrative inquiry as a means by which the

researcher systematically gathers, analyses and represents people's stories, as told by them. Bruner (1986), writes about "narrative knowing," where knowledge is "created and constructed through stories of lived experiences, and the meanings created, [help to] make sense of the ambiguity and complexity of human lives" (p. 12). From this narrative knowing, we gain a unique insight that allows us to bring together multiple layers of understanding of often-complex phenomena.

From the perspective of Yin (2003), case study methodology is suitable for, "examining a contemporary phenomenon within its real-life context, especially when the boundaries between the phenomenon and context are not clearly evident" (p. 13). This is certainly applicable to the nature of my investigation into the context-specific lived experiences of instructional leaders, lead teachers and students in middle level learning environments. The use of multiple case studies enables the researcher to depict the depth and richness of a phenomenon across contexts (Anaf, Drummond & Sheppard, 2007; Stake, 2000, 2006). The ability to investigate and share context specific stories of transformational change from middle level learning environments in Finland, Germany and Canada will be a significant contribution to the body of research related to leading, teaching and learning in the middle years.

The questions that will guide my semi-structured interviews with instructional leaders, lead teachers and students will support the construction of a collective understanding and knowledge of the factors that contribute to the establishment of developmentally responsive, intellectually engaging middle level learning environments. This collaborative building of phenomenological knowledge related to leading, teaching and learning in the middle years is true to the social constructivist epistemology. I believe it will be the stories and lived experiences shared in these discussions that will carry the most rich and valuable insight into

how early adolescents can be better supported in their learning through the transformation of middle level learning environments.

Constructivist grounded theory. For the purpose of this study, I will also be utilising a research design informed by constructivist grounded theory methodology for data analysis. As conceptualised by Glaser and Strauss (1967) grounded theory methodology is more a process of discovery, rather than confirmation. In contrast to more traditional models of research that begin with a theory to be confirmed or negated through subsequent data collection, researchers using grounded theory begin with data collection in various forms, followed by a systematic series of data coding, leading to the formulation of a hypothesis or theory (Glaser & Strauss, 1967). A split in methodology materialised, as Glaser and Strauss, (fathers of classic grounded theory) could not agree on perceived differences in beliefs about the application of grounded theory methodology. The Glaserian approach focused on the “how” of theory development through data collection; whereas, the primary concern of the Straussian approach was a systematic method for data analysis to ensure validation criteria existed to support subsequent theory development (Glaser, 1992, 1998; Strauss & Corbin, 1990, 1998). This divergence in classic grounded theory opened the doors for other grounded theorists to consider alternative lenses from which to view the methodology.

It is the emergence of another division of grounded theory, Charmaz’s constructivist grounded theory (2003) that is most applicable to this research study and the methodology through which data analysis will be approached. In what Charmaz (2003) views as taking grounded theory into the realm of 21st century research, constructivist grounded theory accepts the “relativism of multiple social realities, recognises the mutual creation of knowledge by the viewer and the viewed, and aims towards an interpretive understanding of subjects’ meanings” (p. 250). Giving voice to participants and incorporating multiple perspectives in the collection of data is encouraged by Charmaz (2003) in order to move

away from the disconnected or distant role of the researcher in the data analysis phase, towards “[portraying] the subjects’ experience in its fullness” (p. 269), thereby allowing for multiple participant realities to shape the emergence of multiple potential theories.

Study delimitations. This research is delimited to the factors defined by the scope and boundaries of my study. Most easily identifiable, this study is delimited to the examination of a select number of middle level learning environments in Finland, Germany and Canada. Research sites selected were those perceived by university professors in the field of educational studies to fulfil the criteria for middle level learning environments, as outlined by the researcher in Chapter Three. Another delimitation is the process for selection of interview participants. The principal, assistant principal or vice principal, as the school-based instructional leaders, were “pre-selected” in the sense that I asked to interview the principal or assistant principal at each research site. Based on criteria I outlined for the school-based instructional leader(s), as explained further in Chapter Three, the principal and/or assistant principal then selected which lead teachers would be interviewed. Together, the principal, and/or assistant principal (and/or vice principal) and the lead teachers determined which students would be interviewed as part of the focus group, again based on a pre-determined set of criteria.

Other delimitations associated with the scope of my study are the amount of time I was able to spend in each school familiarising myself with the school context, as well as the amount of time allotted to interviewing each study participant or group of participants. A careful balance must be achieved between wanting to ensure there is sufficient time to be able to accurately represent the school setting and the voices of the participants and also ensuring that I not become too intrusive or burdensome. To lessen any negative impact my presence in the school would have on the study, I ensured the amount time I spent in each school prior to the actual interviews taking place, when I obtained information (documents, observations,

informal conversations, etc.) that I required to portray the school context appropriately, was the same for each research site. Furthermore, the lengths of all interviews were consistent to within five minutes of each other. Controlling for time in a very human context, where participants were giving up their time and sharing personal experiences and beliefs, all for my benefit, was challenging. Although I did not want a timer to dictate the start and end of what was in many cases a very organic experience, I was cognizant of the time I had spent in each school site and in each interview; and, I moved towards bringing conversations to a respectful end when I knew the appropriate time had come.

The nature of my chosen research methodology, a narrative collective case study design informed by constructivist grounded theory for analysis of data, may in itself be considered a delimitation, because inherent in the methodology is the voice and experience of the researcher along with that of the participants as data is analysed and case study descriptions are constructed. Because of the 13 years I have spent working in middle level learning environments, I bring to this research a certain amount of experience that cannot be removed or ignored. I believe the methodology I have chosen is the “right fit” for the context of this research as the role of the researcher is acknowledged and valued in what Charmaz (2003) describes as “an interactive process whereby the researcher and participant construct a shared reality” (p. 270). There is no intent in this research to discover “rights or wrongs,” or label practice as “worthy or not worthy.” In keeping with the nature of constructivist grounded theory methodology, there is no theory or hypothesis that has been put forward to be proven or disproven through the data. It is the themes emerging from interviews with instructional leaders, lead teachers and students that when presented as case study narratives will create a representational picture of their lived experiences in middle level learning environments and which may inform the work of others in similar contexts. Consistent with this type of research methodology, the voices of the participants and the perceptions,

understandings and interpretations of the researcher are expected to be used in the case study narratives; there is no intent in this research for a simple presentation of facts and events.

Study limitations. This research is limited by the factors believed to be out of the control of the researcher. The primary limitation is that of time. As this study is conducted over a short period of time, any discoveries made must be considered to be associated with one particular “snapshot in time,” as this study is not intended to be longitudinal in nature. Generalisability and applicability of findings to other contexts can only be suggested. There is no intent to generalise findings to all middle level learning environments, only to present the three case studies and a potential framework that may inform the work of other instructional leaders and lead teachers in middle level learning environments.

The sample size of participants may be considered by some to be a limitation. In Chapter Three, I discuss in detail the thought process behind the sampling techniques and sample size I selected; based on the methodology I have chosen for this study, I do not consider the sample size to be a limiting factor in the value of this research. Again, there is no intent to generalise findings to all middle level learning environments; generalisability can only be suggested. The intent of this research study is to depict, using a collective case study narrative, the richness and depth of lived experiences of instructional leaders, lead teachers and students in middle level learning environments in Finland, Germany and Canada.

Assumptions. It is important to note that several assumptions underpin this study.

1. The chosen research methodology, a collective case study narrative informed by a constructivist grounded theory methodology for data analysis, is a valid means of acquiring and depicting the richness and depth of lived experiences of instructional leaders, lead teachers and students in middle level learning environments in Finland, Germany and Canada.

2. Research participants will answer questions and share their beliefs and lived experiences in a truthful manner. Anonymity and confidentiality will be preserved and participants have been made aware that they may withdraw from the study at any time.
3. Chosen research sites approach leading, teaching and learning in the middle years in different ways. These differences across contexts are celebrated as vital and ensure both depth and breadth of lived experiences are used to accurately represent how schools in Finland, Germany and Canada are working to establish developmentally responsive, intellectually engaging learning environments for early adolescent learners.
4. The experience of the researcher in middle level learning environments is an asset to this study. The experience and knowledge the researcher brings to the study in the areas of leading, teaching and learning in the middle years assists in formulating appropriate and relevant questions, as well as establishing credibility with study participants. This experience and knowledge will be of benefit during the analysis and interpretation of data phase of the study.
5. The study of leading, teaching and learning in the middle years is of value in a very practical sense to those working with early adolescents in middle level learning environments around the world. This study will fill a perceived gap in research related to early adolescent learners and middle level learning environments and contribute to the advancement in collective understanding of what factors contribute to establishment of developmentally responsive, intellectually engaging middle level learning environments.

Definition of Key Terms and Concepts

Middle years education, middle level education, middle schools, middle level learning environments. These terms are used interchangeably in current research. In this study, the researcher prefers to use the term “middle level learning environment” when referring to the setting or context where early adolescent learners attend school. Perhaps it is simply a question of semantics; however, it is the belief of the researcher that the term middle level learning environment encompasses more than only the four walls of a physical structure, also incorporating the inherent school culture and supporting school community. Many schools can be found to carry the title “middle school” without actually adopting a middle years philosophy, which sets middle schools in name only apart from middle level learning environments where a middle years philosophy has been wholeheartedly embraced.

Middle years philosophy, middle years concept, middle years configuration. For the purpose of this research, the terms “middle years philosophy” and “middle years concept” are seen as interchangeable. The preference of the researcher, however, will be to use the term “middle years philosophy” when referring to the key tenets and fundamental beliefs related to the learning environment and pedagogical practices understood to best support the unique developmental learning needs of early adolescents. “Middle years configuration” is a term that refers to the particular grade levels found within a middle level learning environment.

Early adolescents. The World Health Organisation (WHO) defines adolescence as, “the period in human growth and development that occurs after childhood and before adulthood, from ages 10 to 19” (WHO, 2014, para. 1). For the purpose of this study, the terms “early adolescence” or “early adolescents” will then refer to the developmental period and the learners, ages 10-15.

Instructional leader. For the purpose of this study, the term “instructional leader” refers to the school-based principal, assistant principal or vice principal. The term instructional leader, as defined by Robinson (2011) encompasses, “leadership that is focused on teaching and learning” (p. 11). Contrasting this with a more managerial or administrative view of the school principal, assistant principal or vice principal.

Lead teacher. For the purpose of this study, the term “lead teacher” is used to identify those teachers selected by the school principal, assistant principal or vice principal as having either a formal or informal leadership role or who are believed to possess a strong understanding of early adolescents and the instructional practices that will support their development as learners and as individuals.

Developmentally responsive. For the purpose of this study, I will utilise the description of “developmentally responsive” middle level learning environments outlined by the department of education in the Canadian province of Manitoba, to illustrate the essence of the concept. The beliefs of Manitoba’s department of education related to developmentally responsive middle level learning environments are developed further in the position paper, *Engaging Middle Years Students in Learning: Transforming Middle Years Education in Manitoba* (2010).

Responsive Middle Years education is more about teaching and learning and less about management, more about helping students to make healthy choices and less about mandating behaviour, more about using time productively and less about sticking slavishly to timetables that do not support learning, more about personal relationships and less about upholding traditional roles, and more about including student voices and less about Middle Years teachers covering curriculum. (Manitoba Education, 2010, p. 18)

Intellectually engaging. The Canadian, multi-year *What did you do in school today?* study assisted those involved in the field of education in understanding the complexity behind the concept of engagement--a term often used, and yet, often misunderstood. Three aspects of engagement (academic, social and intellectual) were identified and further explored as responses from over 63,000 adolescents were analysed to better understand their lived experiences in school. For the purpose of this study, I will utilise the definition of “intellectual engagement” put forth by Willms et al. (2009), “A serious emotional and cognitive investment in learning, using higher-order thinking skills (such as analysis and evaluation) to increase understanding, solve complex problems, or construct new knowledge” (p. 7).

Student agency. This term refers to student ownership of their learning and sees students as active, informed and empowered participants in their learning experience. “Student agency” involves a complex interplay of metacognitive and self-regulatory skills and is developed as students are provided with authentic opportunities to exercise their voice and make choices in areas that impact their learning in meaningful ways.

Organisation of the Dissertation

In Chapter Two, current as well as more historical literature is reviewed in order to assist the reader in understanding the development of the middle years movement over the course of the past 100 years. Foundational research studies, position papers and other key documents included in this literature review (many from an American context) have formed the basis for middle level learning reform around the world. This chapter concludes with an examination of a position paper on middle level learning from the Canadian province of Manitoba, the lens through which three additional pieces of supporting research chosen by the researcher are viewed. This current research from Robinson (2011), Friesen (2009) and

Dweck (2008) assists in further exploring the role of the instructional leader, the teacher and the student in the context of middle level learning environments. In Chapter Three, the research paradigm, the methodology, the research design and the method of data analysis selected for this study are discussed in detail. The role of the researcher is also explained in addition to an examination of the criteria used to determine the quality of a study of this nature. Chapter Four opens with an overview of the current contexts for early adolescent learners and middle level learning environments in Finland, Germany and Canada. Data derived from research sites in Finland, Germany and Canada are presented in the form of three case study narratives. In Chapter Five, emerging categories from a cross-case analysis of the three case studies are presented using a conceptual visual framework (see Figure 1). A description follows of the rationale behind the inclusion of each of the significant data categories that combine to form the proposed framework; this is designed to highlight the factors that were observed to contribute to the establishment of developmentally responsive, intellectually engaging middle level learning environments. The chapter closes with a brief discussion of the implications for instructional leaders, teachers and students that have arisen as a result of this study, as well as a consideration of questions for further research and next steps.

Chapter Two – Leading, Teaching and Learning in the Middle: Literature Review

The middle school concept, then, is like a Persian rug. Different threads are woven together into complicated patterns and colors until finally it is not discernible where a particular thread goes or where a particular color begins. It is the overall rug we look at and admire. It is the overall integrated effort that is the rug as well as the behind the scenes process of weaving all the threads together... We must begin [Middle Years transformation] by acknowledging the complexity of the original concept as a totally integrated organisational/curricular/instructional/relational/developmental concept. (Dickinson, 2001, p. 15)

Organisation of the Chapter

In organising this literature review, I thought it important to take the reader on a journey of sorts, one that I have taken time and time again as I endeavour to better understand the art and science behind working with early adolescents in middle level learning environments. Sharing the findings and the beliefs of those who hold early adolescent learning and the work of leaders and teachers in middle level learning environments with the same regard as I do was an important aspect as I considered what to include in this review of the literature. I begin with a brief history of the middle years movement and an introduction to Alexander (1953) and Eichorn (1966), credited by most to have articulated the first visions related to responsive learning environments for students of the middle years. Then, current research perspectives that have shaped beliefs and pedagogical practices related to leading, teaching and learning in the middle years are examined to better understand the impact of and challenges faced by the middle years movement in the context of 21st century education. The countries of New Zealand and Australia are discussed first as these nations have developed large-scale, country-wide education reforms targeted at early adolescents and middle level

learning environments. The research, researchers and organisations that are presented next in literature review all originate from the United States and continue to be influential in any discussion related to transformation of middle level learning environments.

“Misunderstanding the middle” is a brief section that follows, which I felt important to include to highlight the many misconceptions that exist related to early adolescent learners and middle level learning environments.

A fundamental belief I hold related to leading, teaching and learning in middle level learning environments, is the necessity of having an extensive understanding of adolescence and adolescent development and using this knowledge as a foundation for the creation of developmentally responsive, intellectually engaging learning environments for early adolescents. I, therefore, include an overview of key aspects, and in some cases present new developments, in the science and psychology behind the multifaceted adolescent developmental period. This overview includes an examination of the following areas that impact this crucial developmental period: adolescent physical development; adolescent brain development; the importance of sleep in adolescence; the development of metacognition in early adolescents; and, using a strength-based approach to view adolescent development. The review of literature concludes as I present four current pieces of research that have impacted my professional beliefs and in a practical sense, how I have set up the learning environment at my own school. The work coming out of the Canadian province of Manitoba related to engaging early adolescents in their learning serves as the overarching lens from which I examine the research of Robinson (2011), Friesen (2009) and Dweck (2008) to determine the impact their findings may have on the establishment of developmentally responsive, intellectually engaging middle level learning environments.

History of Middle Years Movement

Prior to the 1920s, apart from the university system, there were essentially only two recognised tiers of education in North America--elementary and secondary. Soon, teachers working within these two tiers of schools began to develop beliefs that there needed to be particular attention paid to the students who fell somewhere in the middle, those who did not seem to fit in with either the youngest group in elementary school or the oldest group in high school. In response to the rising concern over these students in the middle, the first junior high schools were established in the United States (AMLE, 2011; NMSA, 1982, 1995, 2003, 2006). However good the intentions were, what transpired was that most junior high schools patterned themselves after high schools, with a strong emphasis on subject matter specialisation, departmentalisation of the curriculum and a broad range of extra-curricular programs and activities. The failure of many junior high schools to adequately respond to the unique developmental needs of middle years students resulted in early adolescents being ill-equipped for the transition from what is often believed to be the “safe haven” of the elementary school to the supposed "rigour" of the high school world (George, 2009; George & Alexander, 2003; Lounsbury, 1992). It was in this context that the term “caught in the middle” emerged, and in far too many cases became an accurate description of the schooling experience for early adolescent learners, ages 10 to 15.

One should not view what began with good intentions in the notion of a junior high school as a complete loss. Many philosophical elements that form the foundation of solid middle level learning environments had their roots in the first junior high schools. Features such as a more broad range of exploratory courses, the belief in the importance of extra and co-curricular activities, integration of the curriculum areas and the importance of connecting students with adult advisors/mentors, all had their start in some of those first junior high schools. What could be said to be the primary downfall of those early junior high schools

was the lack of emphasis or importance placed on understanding the unique developmental needs of early adolescent learners (NMSA, 1982, 1995, 2003, 2006).

In 1963, Dr. William Alexander, the chairman of the Department of Education at George Peabody College for Teachers in Nashville, spoke at a conference in Cornell University designed to examine both the current state as well as the future direction for junior high schools in the United States. It is interesting to note that in a profile of Alexander written by Jessica Hodge for a 1978 *Kappa Delta Pi* publication, he confesses to being initially apprehensive of giving his keynote address at the conference as he felt very little enthusiasm for the present status of junior high schools in the United States. He recounts that his flight to the conference was delayed, and it was in those precious hours he was able to solidify in his mind the idea of, “a new focus and organisation for the school ‘between’ the elementary and high school” (Meyer, 2011, p. 17). The title of the presentation given by Alexander, *The Junior High School: A Changing View*, is believed by many to have signalled the beginning of the middle years movement. Alexander described his vision for this new middle school in the following manner:

Intellectual growth means much more than an increasing competence in the academic content of the curriculum. We must endeavour to stimulate in the child a love for learning, an attitude of inquiry, a passion for truth and beauty, a questioning mind. The learning of right answers is not enough...beyond answers alone, we must help children ask the right questions, and discover their answers through creative thinking, reasoning, judging and understanding. (Alexander as cited in AMLE, 2010b, p. 12)

Donald Eichorn, another educator considered to be one of the founders of the middle years movement, also identified the need for schools that attended to both the academic and personal development of early adolescents. In 1966, Eichorn, then a school district

superintendent, described what he believed would be the most suitable learning environment for early adolescent learners in his book simply entitled, *The Middle School*. These learning environments would feature interdisciplinary teaming among teachers, small learning communities, teacher advisory programs, frequent opportunities for hands-on learning and interactive learning with peers, flexible scheduling and groupings of students, and learning centres that would support students in need. Most importantly, for these learning environments to be successful, Eichorn believed, teachers would require an expert understanding of the developmental needs of middle years learners and would dedicate themselves to providing a program that would challenge and support these learners (Eichorn, 1966).

The work of Alexander (1963) and Eichorn (1966), believed to be the originators of much of today's effective middle level pedagogical practices, helped bring awareness to the unique learning needs of early adolescents and highlighted why any proposed middle level reform initiatives must have these understandings as the underlying framework. The number of middle schools in the United States grew rapidly during the late 1960s through to the early 1970s. Other countries around the world began to take note of this middle level reform taking shape in many parts of North America. For example, in 1968 there were no middle schools in the United Kingdom; by 1978 there were 1,690. Five hundred opened in 1973 in the United Kingdom alone (Valentine, 2000). This newfound popularity of the middle years movement led to the emergence of professional organisations, the creation of resources and the acknowledgement at some post-secondary teacher training institutions of the "middle school" and consideration of how this might impact pre-service teacher programs. In the early 1970s, the Midwest Middle School Association was established by a small group of advocates of Eichorn's work. In 1973, the name was changed to the National Middle School Association (NMSA), and more recently to the Association for Middle Level Education

(AMLE), an organisation that is today one of the most recognised resources worldwide for middle level teaching and learning.

Support for the middle years movement began to wane in the early 1980s, as the public and educators alike began to confuse calls for a particular structure or grade configuration with the need for the learning environment to attend to the development needs of the adolescent learner. The mid-80s in the United States saw much focus of education reform initiatives on either early elementary school intervention or finding ways to reduce the ever-increasing high school dropout rate. By the late 80s, a series of reports, beginning in the state of California, with Florida, Louisiana, Maryland and several other states following suit, identified the middle years as being central in helping students succeed and stay in school (Carnegie Council on Adolescent Development, 1989; National Association of Secondary School Principals, 2006; NMSA, 2003).

In 1989, the important *Turning Points* report, from the Carnegie Council on Adolescent Development, was published, and so began once more the push towards funding and advocating for reform and transformation in middle level learning environments. Throughout the 1990s, the middle school movement across North America and other parts of the globe saw, yet again, a dramatic rise in popularity, although clarity with respect to middle years configuration versus middle years philosophy/concept still eluded many (Kasak, 2004). The late 1990s saw the emergence of an alliance of educators and education organisations that sought to unify middle school reform across the United States, the National Forum to Accelerate Middle Grades Reform. Subsequent research such as the follow-up *Turning Points 2000* position paper, new iterations of *This We Believe* and the revised *Breaking Ranks* for middle level learning only further supported the push for developmentally responsive learning environments for early adolescent learners. In Canada, the early 1990s heralded a “dawning” of sorts for middle level education, as middle years associations were created in

most provinces and territories. Backed by several provincial ministries of education, position papers outlining the vision for teaching and learning in the middle years emerged. One such document, *Engaging middle years students in learning: Transforming middle years education in Manitoba* (2010), has formed the foundational lens for this research study.

Current Research Perspectives Supporting Middle Level Learning Environments

In the current context of middle level learning, the following works have been influential in setting the agenda, focusing the debate and providing direction for school-based leaders, educators and policy makers. These publications have shaped and influenced what are believed to be best pedagogical practices for middle level learning environments. While this literature review may not be an all-inclusive examination of research spanning all corners of the globe, the research presented here does exemplify key themes I hope to investigate through my research study. Further, the research examined in this literature review are often referred to and viewed as the foundational philosophies that have formed the basis for subsequent examinations into leading, teaching and learning in the middle years.

New Zealand and Australia. For the past decade, both New Zealand and Australia have worked hard to establish nation-wide systems of beliefs, practices and resources that would support teaching and learning in the middle years. This desired consistency across all middle level learning environments is believed to be important in supporting early adolescent learners through what is understood to be a very dynamic time in their development (Bishop, 2008). Policy emerging from both countries clearly articulates the importance of holding at the centre of their newly developing middle years philosophies the early adolescent learner, their unique developmental needs and the ever-changing world they face (Barratt, 1998; Chadbourne, 2002; Hill & Russell, 1999).

New Zealand has invested considerable resources into reform initiatives for their middle level learning environments. The question that has guided their research has been focused on how schools and systems are responding to the unique developmental needs of learners, ages 10 to 15. Longitudinal research studies from both New Zealand and Australia indicate that a middle years approach simply “works.” Outcomes are better, student engagement with their learning is greater, teacher satisfaction is higher and resources within and across schools are better utilised (O’Sullivan, 2005). Haigh (2004) writes, “Studies have overwhelmingly concluded that middle schools do an effective job... The notorious Year 7 dip tends not to happen” (p. 2).

Departments of Education across all Australian states and territories and in New Zealand have identified the central need for change and support of reform in the middle years of schooling and have committed to continued research, development and funding in support of their early adolescent learners. In Australia, the national values and principles of this commitment to reform have been described by three key terms (see Appendix A):

1. Re-structuring - related to school structures that support early adolescent learners and their learning (class size, scheduling, resources, pre-service teacher programs).
2. Re-culturing - related to supports needed for the healthy development of early adolescents and a school culture that support this development (teaching teams, developing student agency, student advocates, teacher professional learning).
3. Pedagogy – related to curriculum, assessment and task design (authentic assessment, integrated learning opportunities, broad-based curriculum, responsive pedagogies). (Rumble & Aspland, 2009, p. 6)

The New South Wales Department of Education and Training (NSW DET) (2004) found that while many students in their district progress satisfactorily during the middle years, it is also a time when many students “switch off” from their schooling. “Real empathy and an understanding of the variety of ways in which young adolescents learn and think is required if we are to meet their needs” (NSW DET, 2004, p. 14). Australian research examining teaching and learning in the middle years has shown that early adolescents are at their peak social, emotional, intellectual and physical development during the middle years of schooling; and, what students need most from their learning environments is often in stark contrast to what their lived experience in school provides (NSW DET, 2006). The state report on the status of middle level learning from Queensland (2010) found that it is in the middle years of learning where students often lose their enthusiasm for learning and where their progress as learners slows and the gaps in learning widen.

The curriculum, pedagogy and organisation of the Middle Years are inadequate... We compound the problems of primary–secondary transfer by teaching young adolescents poorly and expecting too little of them, with the result that they experience a dip in performance which is only compounded in the following school year (Year 8) and a loss of motivation that continues into Year 9 as well... The Middle Years of Schooling should be so busy, so demanding, so active, so adventurous, so spectacular that young adolescents should barely have time for brooding introspection or watching Australian soap operas. (Barber, 1999, Melbourne Conference Remarks)

In the 2008, *Shaping Middle Schooling in Australia* report, Barratt writes, “Many teachers have come to realise that neither a slightly more demanding version of the early years of primary school, nor a watered down rendering of post-compulsory requirements is appropriate for these students” (p. 2). A significant discovery emerging from research in both Australia and New Zealand highlighted the benefits of providing subject specialist teachers

for middle years learners. Findings revealed that teachers having an expert understanding of the disciplines they teach are better able to support students as they engage in and connect with the curriculum. This same research provided additional evidence of the positive impact of subject specialist teachers in middle level learning environments on the transition to secondary and then post-secondary schools (Bishop, 2008). It was shown that middle years learners matched with subject specialist teacher fared better on initial assessments in secondary school, in addition to reporting having a better sense of what aptitudes they had (or did not have) for given subject areas.

A captivating piece of research, first presented at the Australian Curriculum Studies Association in 2009, entitled *In Search of the Middle School Teacher*, brought to the forefront, the importance of considering the nature of the middle years teacher and the essential attributes that make certain teachers a good match for early adolescent learners (Rumble & Aspland, 2009). Given the nature of middle level reforms being proposed in Australia and many other countries around the world, Rumble and Aspland's research found that to ensure success in the transformation of middle level learning environments, the nature of the middle years teachers cannot be omitted from discussions related to curriculum, as well as organisational and philosophical shifts.

Emerging from countless discussion with principals, teachers, students and parents was a description that should perhaps find its way into any job posting for a teacher of early adolescents:

The middle school teacher is a specialist in adolescence. In addition, the middle school teacher is one who is creative and innovative and is skilled in designing a wholesome curriculum which is differentiated and integrated around themes that are relevant to young peoples' lives and delivered by a teaching team. The middle school

teacher is committed to forging positive relationships with students, nurturing independence and a sense of identity in the middle years learner...and is a passionate advocate for the middle years learner and of the middle years reform. (Rumble & Aspland, 2009, p. 3)

For many, this notion of a specialist teacher, trained specifically with skills, knowledge and understanding of how to best meet the unique developmental needs of early adolescent learners presents a very different image than what was once associated with middle years teachers. A significant task for the government of Australia is to determine how to best ensure this new image of the middle years teacher is reflected in their pre-service teacher preparation programs. Further, statements issued by numerous professional organisations in both Australia and New Zealand (Secondary Principals' Associations, Middle Years of Schooling Association...) support a renewed focus on continued teacher professional development in middle level learning environments as another key element essential in creating the conditions that support and sustain middle level reform (Hill & Russell, 1999; Russell, 2003; Rumble & Aspland, 2009). Combined with developmentally appropriate instructional design and assessment practices, a sustainable culture of increased student engagement and achievement can become the norm rather than an exception for all middle level learning environments across Australia and New Zealand (Haigh, 2004).

Association for Middle Level Education (AMLE). In 1973, the NMSA became a nationally recognised organisation in the United States. The NMSA had its origins in the Midwest Middle School Association, formed in the early 1970s, in response to the rise in popularity of the middle school movement. In 1982, the NMSA put forth the inaugural *This We Believe: Keys to Educating Young Adolescents*, encompassing 16 recommendations supported by research and the experience of its executive council that they believed would best support teaching and learning in middle level learning environments. The change of the

organisation's name in the spring of 2011 to the Association for Middle Level Education (AMLE) did not change the mission, values and core beliefs, which have remained constant since their inception over 40 years ago.

The Association for Middle Level Education is dedicated to improving the educational experiences of young adolescents by providing vision, knowledge and resources to all those who serve them in order to develop healthy, productive and ethical citizens. (AMLE, 2010b, p. 5)

This shift in title from “Middle School” to “Middle Level Education” is reflective of a growing need to distinguish between “middle school” as a physical structure and “middle level education” as an all-encompassing philosophy or conceptual framework. It is perhaps fitting that the fourth release of *This We Believe* (2010b), sought to unite educators through a common focus of doing what is best for early adolescent learners, while drawing upon current research that focuses on the philosophical underpinnings of middle level education. Continuing to develop a better understanding of early adolescents as both learners and developing human beings is seen as paramount in supporting their success and achievement; without this understanding, any strategies undertaken or reform initiatives adopted may be misguided. Any decisions made related to programming, structures and pedagogy in middle level learning environments must be “based on the developmental readiness, needs and interests of young adolescents” (AMLE, 2010b, p. 13).

Current research accompanying the fourth release of *This We Believe* highlights the importance of the middle years of education in the kindergarten through grade 12 continuum, while also expressing concern for the continued disproportionate amount of resources which are not being devoted to learning environments for early adolescents (AMLE, 2010a). An additional concern arises in the area of implementation. Regardless of where the

recommendations for middle level reform originate, it is the misconception that they can be looked at as a “menu to pick and choose from,” rather than as an interdependent whole, designed to work in conjunction with and strengthen the other. Selectively implementing practices, principles, recommendations, (or any other label they may carry), reduces the effectiveness of any endeavour at middle level reform.

The “work in progress” nature of early adolescent learners makes it tremendously difficult to determine how a given group learners will respond to a given learning task and when individual students will be ready to demonstrate mastery of a learning outcome. Therefore, the 16 AMLE *This We Believe* recommendations are intended to support instructional leaders and teachers as they design learning environments and learning opportunities where all students can experience success, in their own way, in their own time, and foster a desire for lifelong learning needed to thrive in today’s world. The AMLE document has outlined four essential attributes of successful middle level learning environments, believed to be achieved through attending to their 16 hallmark recommendations. The four essential attributes are described as follows:

1. Developmentally responsive: using the distinctive nature of young adolescents as the foundation upon which all decisions about school organisation, policies, curriculum, instruction and assessment are made.
2. Challenging: ensuring that every student learns and every member of the learning community is held to high expectations.
3. Empowering: providing all students with the knowledge and skills they need to take responsibility for their lives, and to address life’s challenges, to function successfully at all levels of society and to be creators of knowledge.

4. Equitable: advocating for and ensuring every student's right to learn and providing appropriately challenging and relevant learning opportunities for every student. (AMLE, 2010b, p. 24)

To assist educators in understanding the interdependent nature of the AMLE recommendations, they have been intentionally grouped into three categories aligning with key areas of program consideration for early adolescent learners. The categories and subsequent recommendations are outlined as follows:

1. Curriculum, Instruction and Assessment Characteristics:
 - Educators value young adolescents and are prepared to teach them.
 - Students and teachers are engaged in active, purposeful learning.
 - Curriculum is challenging, exploratory, integrative, and relevant.
 - Educators use multiple learning and teaching approaches.
 - Varied and ongoing assessments advance learning as well as measure it.
2. Leadership and Organisation Characteristics:
 - A shared vision developed by all stakeholders guides every decision.
 - Leaders are committed to and knowledgeable about this age group, educational research and best practices.
 - Leaders demonstrate courage and collaboration.
 - Ongoing professional development reflects best educational practices.
 - Organisational structures foster purposeful learning and meaningful relationships.

3. Culture and Community Characteristics

- The school environment is inviting, safe, inclusive, and supportive of all.
- Every student's academic and personal development is guided by an adult advocate.
- Comprehensive guidance and support services meet the needs of young adolescents.
- Health and wellness are supported in curricula, school-wide programs, and related policies.
- The school actively involves families in the education of their children.
- The school includes community and business partners. (AMLE, 2010b, p. 27)

Perhaps more important than any other recommendation is the belief that those teachers and principals working with early adolescent learners should make the choice to do so. A vital and often overlooked aspect of successful middle level learning environments is ensuring the proper training and subsequent ongoing professional development for teachers and instructional leaders in how to best support the unique learning needs of early adolescent learners. It perplexes many that there remains a significant disparity in the number of teacher preparation programs that focus on teaching and learning in the middle years and early adolescent learners; in contrast most pre-service teacher training concentrates on teaching and learning at both ends of the kindergarten through grade 12 spectrum, with a focus on early learning or curriculum specificity of high school (AMLE, 2010a, 2010b).

When teachers have appropriate training in understanding the unique developmental characteristics of early adolescent learners, they are better able to design learning opportunities that support students in connecting with and developing ownership in their

learning. Teaching and learning in the middle years cannot only be about “covering” curriculum; there are tremendous opportunities to challenge these learners to engage in the real work of the disciplines they study. The myth that early adolescent learners are not able to engage in higher order thinking is often due to a mismatch between the type of learning task being offered to students, the students’ readiness and the teacher’s ability to navigate support for a classroom of learners all in diverse developmental stages (Nesin, 2005).

Teachers who truly understand and appreciate early adolescent learners, can, with more ease, determine how to design learning opportunities that challenge and extend the learning of some students, and also provide scaffolding for those students who require additional support, all while ensuring each student experiences success in their own way, in their own time.

Early adolescent learners are so diverse in their development, that it would be misguided to expect all students to master a concept during a narrow time frame, simply because it may fit better with a teacher’s predetermined lesson or unit plan. This is precisely why the assessment aspect of teaching and learning in the middle years is so important and why the move from norm referenced to criterion referenced assessment, especially with this age group is crucial. “Assessment should emphasise individual progress rather than comparison with other students...and not rely on extrinsic motivation” (AMLE, 2010b, p. 45). Self-assessment and student self-reflection are other key aspects of the assessment process, supporting increased student agency. When the motivation for learning can come from within and the reward for learning is the learning itself, then teachers know they have created independent, lifelong learners (Black, Harrison, Lee, Marshall, & Wiliam, 2004).

The significance of strong instructional leadership cannot be overlooked when examining how to transform teaching and learning in middle level learning environments (Valentine, Clark, Hackmann, & Petzko, 2004). Good leaders understand that transformation

does not occur overnight and that anything proposed as “a packaged quick fix solution” is likely nothing more than an expensive marketing tactic. Strong instructional leaders surround themselves with other strong educators and key stakeholders, those who will challenge them, provide opposing viewpoints and even cause a disruption in their thinking, all in the name of ensuring programs, practices and processes that do not serve early adolescents well are rethought, altered or removed altogether. The AMLE believes that the school itself, along with the accompanying structures, policies, processes and interactions serve as a “teacher” of sorts for students (AMLE, 2010b). It is therefore crucial that the organisational structures supporting middle level learning environments exemplify what research and experience has shown is best for early adolescent learners. The principal, as the most visible champion of transformation and sustained improvement in middle level learning environments must ensure that nothing distracts from the real work--the work of teaching and learning, and nurturing, early adolescents.

Finally, while it may seem cliché to use the phrase, “it takes a village to raise a child,” the necessity of a multi-faceted approach to supporting early adolescents navigate what can be a very complicated phase in their lives cannot be discounted. The AMLE stresses in their recommendations the positive impact involving students’ families in their schooling experience has on their academic and personal growth (AMLE, 2010a; Mo & Singh, 2008). Successful middle level learning environments have been shown to “wrap” their learners with comprehensive in-school guidance services, provide teacher mentors and connections with other community supports and services. While it may seem counterintuitive that students require increased support as they transition through the middle years of learning, it is precisely at this time of greatest developmental change that support for early adolescents surround them rather than be withdrawn. Communication between school and family should remain strong and consistent through out the middle years, so as to ensure students are aware

of the partnership nature of their experience as learners (AMLE, 2010a; Muir, Anfara, Andrews, Hough, Caskey, Mertens, 2006).

The fourth edition of *This We Believe* is characterised by an underlying tone of a “call to action”; the necessity of understanding the middle years of learning can no longer be seen as something to withstand or endure until the “real work in high school begins.” The vision described in *This We Believe*, advocates for what research shows is right for young adolescents, not what might be current practice, expedient or readily accomplished” (AMLE, 2010b, p. 71). William Waidelich, current AMLE Executive Director, writes,

During these transitional years, students change significantly--physically, intellectually, morally, psychologically and social-emotionally. The academic growth and personal development experienced during these important years significantly impact their futures. In the middle grades, the stage will be set for success in high school and beyond...[These students] deserve an education that will enhance their healthy growth as lifelong learners, ethical and democratic citizens, and increasingly competent, self-sufficient individuals who are optimistic about the future and prepared to succeed in our ever-changing world. (AMLE, 2010b, p. 11-13)

Imperative to a successful, prosperous future in an ever changing global society is ensuring the world’s early adolescents experience the best possible foundational preparation in middle level learning environments; this vision was outlined over 40 years ago in the first iteration of *This We Believe*. The AMLE is committed to ensuring instructional leaders, teachers and school communities are provided with the resources they require to make this possible.

Breaking Ranks in the Middle.

For those of us who believe the middle grade years are uniquely important in a young person's development, it is of great value to reflect on what contributes to the best

possible school experiences during those years. *Breaking Ranks in the Middle* provides a valuable framework for considering the many aspects of middle school education. It should serve as a potent catalyst for reflection and growth of individuals and groups that want the full spectrum of early adolescents to flourish in school. (Tomlinson, 2006, p. 8)

Breaking Ranks in the Middle (2006) was released in response to the tremendous success seen by the *Breaking Ranks* (1996) guide for high school leaders. It was not intended to be just another report regarding how to improve middle schools. Writers and collaborators on this project hoped it would be used as a working document and a guidebook, one that was designed by practitioners for practitioners. Information was presented as a collection of strategies that had been successful in middle level learning environments across the United States--not a prescriptive process, but a sharing of collective wisdom. Parts of *Breaking Ranks in the Middle* might be considered provocative; even the title of the document itself lends itself to a notion of engaging in a militaristic exercise. The power in this document stems from the fact that it reads in an almost conversational tone; what one might expect to see during a session break at a leadership conference, instructional leaders having discussions with and sharing with other instructional leaders. As a reader, this is disarming in nature, and so when a question is posed such as, "How well does your school serve every student," it is comes from a place of non-judgment, a place where any instructional leader would feel compelled to stop and reflect on what is happening in their school (National Association of Secondary School Principals, 2006).

The underlying tone of the very persuasive evidence presented in *Breaking Ranks in the Middle* is the necessity of creating excellence in both expectations and environments for middle level education. Reference is made to the famous tag phrase from Jim Collin's (2001) *Good to Great*, indicating that complacency with "good" middle level learning environments

prevents the development of “great” middle level learning environments. Part of this “great” must come from the intentional design of learning environments responsive to the needs of early adolescents (National Association of Secondary School Principals, 2006). This includes everything from learning resources, to teachers, to flexible scheduling, to enlisting community support, all to ensure what happens to those students in the middle is not left to chance, something the authors describe as being all too common in American schools.

Adequate teacher training is emphasised. The question of how a college professor would fare in a kindergarten classroom is provocatively explored (National Association of Secondary School Principals, 2006). Decades of research have shown that as humans our needs (social, emotional, developmental, cognitive, etc.) continue to change throughout our lifetimes. It is, therefore, both naïve and misguided to believe the methods used to address the learning needs of students across the spectrum of ages (and abilities) found in our public school systems would not change to reflect the unique needs of the students in the classrooms. Returning to the analogy of the college professor in the kindergarten classroom; while there are certainly some aspects of pedagogy that may be applicable regardless of the age of the learner being taught, there are far more subtleties and nuances that if not attended to can have a serious negative impact on a child’s experience in school (National Association of Secondary School Principals, 2006).

The National Forum to Accelerate Middle Grades Reform (2014) aims to showcase and assist in the design of middle level learning environments that are “academically excellent, developmentally responsive and socially equitable” (para. 1). This cannot be done with teachers who have not been trained to understand and create learning opportunities that meet the unique learning needs of early adolescents. The authors describe learning as a choice students must make on a continuous basis; without an appropriate combination of teacher, learning task and learning environment, early adolescents may make the choice to

disengage from their learning. It is precisely here, where terms like, “stuck in the middle” and “lost in the middle” originate and the myth that early adolescence is a time of such turmoil and transition that meaningful learning cannot take place is perpetuated (National Association of Secondary School Principals, 2006).

The nine cornerstone strategies of the *Breaking Ranks in the Middle* document provide a valuable framework for instructional leaders to consider as they work towards creating a learning environment where middle years learners will flourish. These cornerstone strategies are referred to as “entry points” by the writers, creating a parallel between the process of transforming middle years learning environments and the process of differentiation--the target is the same, how schools choose to use the nine strategies and in what particular order, must be a very school context-based decision. Connected to the nine cornerstone strategies are an additional 30 recommendations (see Appendix B), which offer specific, actionable steps that instructional leaders, teachers and schools can implement to begin to affect change in middle level learning environments. The interdependence of the recommendations is again emphasised, and when attention is brought to the four key groups that need to be considered when determining how to best implement change in the middle years (the teachers, the students, the parents and the school community) one cannot help but be reminded of the work of Richard Elmore (2010) and the “instructional core” which is comprised of the teacher, the student and the content; when you change one, you have to change them all. The nine Breaking Ranks in the Middle cornerstone strategies are:

1. Establish the academically rigorous essential learnings that a student is required to master in order to successfully make the transition to high school and align the curriculum and teaching strategies to realise that goal.

2. Create dynamic teacher teams that are afforded common planning time to help organise and improve the quality and quantity of interactions between teachers and students.
3. Provide structured planning time for teachers to align the curriculum across grades and schools and to map efforts that address the academic, developmental, social, and personal needs of students, especially at critical transition periods (e.g., elementary to middle grades, middle grades to high school).
4. Implement a comprehensive advisory or other program that ensures that each student has frequent and meaningful opportunities to meet with an adult to plan and assess the student's academic, personal, and social development.
5. Ensure that teachers assess the individual learning needs of students and tailor instructional strategies and multiple assessments accordingly.
6. Entrust teachers with the responsibility of implementing schedules that are flexible enough to accommodate teaching strategies consistent with the ways students learn most effectively and that allow for effective teacher teaming, common planning time, and other lesson planning.
7. Institute structural leadership systems that allow for substantive involvement in decision-making by students, teachers, family members, and the community, and that support effective communication among these groups.
8. Align all programs and structures so that all social, economic, and racial/ethnic groups have open and equal access to challenging activities and learning.
9. Align the school-wide comprehensive, ongoing professional development program and the Personalised Learning Plans (PLPs) of staff members with the

requisite knowledge of content, instructional strategies, and student developmental factors. (National Association of Secondary School Principals, 2006, p. 8)

It should be noted that the writers highlight cornerstone strategy number nine, teacher professional learning, as foundational to ensuring the other eight strategies are properly implemented.

Without proper planning and development, is it reasonable to think that a school could establish and implement essential learnings; create dynamic teams and improve the quality of interactions; align curriculum and facilitate smooth transitions for students; institute an effective advisory program; use a variety of instructional strategies and assessments; implement flexible schedules; increase the substantive involvement of families, students and the community; and ensure equity? (National Association of Secondary School Principals, 2006, p. 21)

The importance of providing, supporting and in some cases leading ongoing, meaningful teacher professional learning, connected to key school priorities is also highlighted in the work of Viviane Robinson (2011) in *Student-Centered Leadership* and the five leadership dimensions she outlines. In both pieces of research, leading teacher professional learning is viewed as essential to bringing about positive change in schools that significantly impacts student learning and achievement.

Perhaps most intriguing in the *Breaking Ranks in the Middle* document are the reasons presented as to why principals of middle level learning environments should choose to enter into a significant reform process with their schools. In fact, some of these reasons are presented in more of a, “how could you possibly not” manner, such as the one entitled, “the professional educator’s moral imperative enticement” (p. XIX). How could anyone be

morally opposed to doing whatever was necessary to improve the learning environment for early adolescents? Is it not in the nature of a teacher to dream of success for each child they teach, and in so doing, feeling they too have experienced success? More than accountability mandates and data driven policy, it is the very human nature of the teaching profession that compels school leaders and teachers to want the best, and want to do the best, for each and every student who passes through the doors of their schools. Fostering meaningful student engagement, fulfilment and discovery of self through the creation of developmentally responsive and intellectually engaging learning environments is at the heart of every strategy, every recommendation and every anecdote presented in *Breaking Ranks in the Middle* (National Association of Secondary School Principals, 2006). There is one particular phrase, which captures the essence of what could easily be the vision for middle level reform around the globe, “the promise...to promote a culture of continuous improvement to help each student become part of a community in which all students have the opportunity to achieve at a high level” (p. XIX).

Turning Points and Turning Points 2000. In 1989, the Carnegie Corporation in conjunction with the Centre for Collaborative Education in Boston, released the first *Turning Points* report, focusing on the need to restructure middle level learning environments in order to improve teaching, learning and assessment for all early adolescent learners. Since then, the same group has continued to release updated reports and guides, with the purpose of highlighting the truly unique needs of this group of learners and supporting teachers in engaging students in ways that meet their developmental needs. *Turning Points* and *Turning Points 2000* are recognised for giving credibility to (and in many instances, accelerating) reform in the middle years movement across the United States and growing this movement internationally. The premise for their work is that the middle years are the time of greatest vulnerability for early adolescents as behaviour patterns in the cognitive, physical, social and

emotional domains are established that can have lifelong significance (Carnegie Council on Adolescent Development, 1989). Their research indicates that the impact of this wide range of cognitive, physical, social and emotional needs can be mitigated by challenging students with worthwhile work in a caring and supportive learning community of peers and teachers. It follows, then, that learning tasks worthy of students' time need to be grounded in an understanding of the middle years child. To this end, seven principles were put forth to support the creation of developmentally responsive teaching and learning environments for middle years learners. The seven *Turning Points* Principles are as follows:

- Teach a curriculum grounded in rigorous, public academic standards, relevant to the concerns of adolescents and based on how students learn best.
- Use instructional methods designed to prepare all students to achieve high standards and become lifelong learners.
- Staff middle grade schools with teachers who are experts at teaching young adolescents, and engage teachers in ongoing professional development.
- Organise relationships for learning to create a climate of intellectual development and a caring community of shared educational purpose.
- Govern democratically through direct or representative participation by all school staff members, the adults who know students best.
- Provide a safe and healthy school environment as part of improving academic performance and developing caring and ethical citizens.
- Involve parents and communities in supporting student learning and healthy development. (Centre for Collaborative Education, 2001a, p. 24-25)

Six *Turning Points* Practices were developed in conjunction with the *Turning Points* Principles to support their implementation. The *Turning Points* Design Principles and Practices Graphic (see Appendix C) shows the interconnectedness and reciprocal nature of the relationship among of the principles and the practices, with the students always being held at the center of any action undertaken. The practices outlined and developed further highlight the following six areas:

1. Improving learning, teaching and assessment for all students.
2. Building leadership capacity and a professional collaborative culture.
3. Data-based inquiry and decision making.
4. Creating a school culture to support high achievement and personal development.
5. Networking with like-minded schools.
6. Developing district capacity to support school change. (Centre for Collaborative Education, 2001a, p. vii)

The practice of improving learning, teaching and assessment for all students is central to all other practices. All subsequent practices undertaken at the school level must align to ensure improving teaching and learning for early adolescents is always the focus. As such, in order to improve learning, teaching and assessment there needs to exist in the school a culture of collaboration and a vision for strong and shared leadership. Unless schools enter into a continuous cycle of improvement using all tools and relevant data available to inform next steps in teaching and learning, the desire for each student to develop to the best of his or her ability cannot be realised. A comprehensive data story must be constructed (and continually updated) to support the informed decision making that will direct future teacher collaboration

and create the focus for next steps as schools work to improve teaching and learning for early adolescents (Centre for Collaborative Education, 2001b).

Having a deep understanding of early adolescent learners is at the heart of creating a school culture that will support the development of a learning environment that promotes high standards for student achievement and personal growth. Careful consideration into the wise and effective use of resources (time, money and people) that are put in place to support early adolescents in their learning is crucial. Structures such large blocks of learning time, flexible groupings, student advisory programs and interdisciplinary working groups do not come with a large price tag, but are also highly effective (Centre for Collaborative Education, 2001a, 2002; Felner, Jackson, Kasak, Mulhall, Brand, & Flowers, 1997).

The collective wisdom that can be shared and developed when schools are devoted to creating exceptional middle level learning environments should not be overlooked. Networking among schools is an underused strategy that has demonstrated positive benefits, often falling in the “work smarter, not harder” realm (Centre for Collaborative Education, 2001b). The final practice of developing district capacity that supports improving middle level learning environments is a much larger issue, one that leaves schools fighting battles that can derail the great work happening on a daily basis in their classrooms. This practice is about a greater vision and direction that supports transformation of teaching and learning in the middle years, and it is this practice that is often the most difficult to affect change in.

Foundational to the views espoused in all *Turning Points* research is the desire to ensure early adolescents develop in the middle years of education the abilities to, “think critically, identify and solve complex and meaningful problems, know their passions, strengths and challenges, communicate and work well with others, lead healthful lives and be ethical and caring citizens of a diverse world” (Centre for Collaborative Education, 2001a, p.

3). Two major issues were identified in the first iteration of the *Turning Points* (1989) research, which prevent early adolescents from experiencing both personal and academic success in the middle years of learning. The first issue is the mismatch between the unique learning and developmental needs of early adolescents and the existing structures and processes in place at a school. The second issue is the myth often falsely propagated by the general public that early adolescents are not capable of engaging in higher order thinking and meeting high academic and behavioural expectations (Carnegie Council on Adolescent Development, 1989; Centre for Collaborative Education, 2003).

To support the development of early adolescents to their fullest potential requires that teachers have an intimate knowledge of the unique learning needs and also the challenges facing early adolescent learners. Research presented in *Turning Points: The Young Adolescent Learner* (2003) acknowledges the crucial role teachers play in the very challenging nature of middle level education. The research indicated that institutional barriers, such as pre-service teacher preparation programs, in-service professional learning opportunities or existing school structures often prevent teachers from understanding the students they face in their classrooms every day in the manner necessary support their unique learning needs.

The *Turning Points Guide to Curriculum Development* (2001a) focuses on how to design learning and assessment opportunities that will target the unique learning needs and capabilities of early adolescent learners. There exists in the middle years of learning, the most diverse range of physical, cognitive and social development characteristics among children. Strategies put forth in the *Turning Points Guide to Curriculum Development* focus on the creation of worthwhile learning opportunities for early adolescents in the context of a supportive learning environment that fosters the positive relationships needed for students to experience success. It is not a prescriptive, “step by step” guide to lesson planning (readers

are, in fact, cautioned about “packaged programs” endorsing “quick fix” lesson plans). But rather it focuses on five principles of sound instructional design and assessment that align with what is known about how to best support early adolescent learners. These five principles are:

1. Curriculum should be grounded in an understanding of the middle school child.
2. Curriculum should be based on what we want students know and be able to do.
3. Students and teachers should be engaged in authentic, intellectual work.
4. Assessment should demonstrate that students can do important work.
5. A coherent curriculum should be developed across the entire school. (Centre for Collaborative Education, 2001a, p. 4)

When used to guide teacher instructional design and assessment practices, the myth that middle level learners are not able to engage in higher order thinking skills and independently engage in authentic learning opportunities can be dispelled.

The many *Turning Points* (1989, 2001a, 2001b, 2002, 2003) guides serve to support instructional leaders and teachers in the continuous professional learning necessary to support the creation of developmentally responsive and intellectually engaging learning environments for early adolescents. A research study conducted by Roney, Brown and Anfara (2004) examined middle schools in state of North Carolina attempting which were attempting to implement the *Turning Points* recommendations. Research revealed that middle schools profiled in their study expressed difficulties in both embracing the initiative and implementing the recommendations of *Turning Points* with a high degree of consistency and commitment. The implementation difficulties identified in the research findings stemmed from the belief that reform success could be found quickly and easily, without having to

engage in the sometimes challenging foundational work needed to create the conditions necessary for long-lasting transformation to take root and continue to evolve (Centre for Collaborative Education, 2001b, 2002). Implementing recommendations as a “quick fix” versus wholeheartedly embracing and understanding the purposed behind reform initiatives is something many researchers continue view as a huge stumbling block to successful middle years transformation (Jackson, 1990; MacIver and Epstein, 1993).

The National Forum to Accelerate Middle-Grades Reform. The National Forum to Accelerate Middle-Grades Reform is an alliance of more than 60 key stakeholders, all committed to ensuring middle level learning environments provide the foundation necessary to foster the healthy, multi-faceted development of adolescents both in and out of school. The National Forum works towards this end by disseminating information and resources, and by providing varied supports to all those (educators, health and mental health professionals, community supports) with a vested interest in healthy adolescent development. The *Schools to Watch Initiative*, founded by the National Forum in 1999, was intended to honour those middle level learning environments that exemplified excellence in meeting the unique developmental needs of early adolescents. Specific criteria, used to clarify the vision for high-performing middle level learning environments, have been developed by the educators, national organisations and researchers who form the National Forum’s network of collaborators. While the National Forum is certainly concerned with the experience of early adolescents throughout their years in middle level learning environments, equal emphasis is place on the importance of preparing adolescents for post-secondary education, possible career futures and their place as global citizens.

The efficacy of the “carrots and sticks” *Schools to Watch* awards program has been questioned, to which the National Forum responds with conviction the necessity of showcasing the commitment demonstrated by over 200 schools across the United States to

ensuring a whole school approach to meeting the unique developmental and learning needs of early adolescents. The National Forum believes the living examples of middle level learning environments showcased in the *Schools to Watch* program will motivate other instructional leaders and educators to begin the transformation process in their schools.

Rick Wormeli. Rick Wormeli has long been considered one of North America's leading experts in the area of middle years teaching and learning. While education critics may say the system of education in the United States is still recovering from the era of *No Child Left Behind*, Wormeli's work in middle schools around the United States has provided valuable insight into what is needed for successful transformation of middle level learning environments. In a 2006 article written for the Association for Curriculum and Development's (ASCD) *Educational Leadership*, Rick Wormeli articulately describes the challenging, yet absolutely rewarding, nature of working with early adolescent learners. (It brought a smile to faces of those teachers who have dedicated their careers to working with early adolescents and likely struck a chord in many of their hearts as well.) The passage is a valuable reminder of why school systems need to appropriately nurture these learners with responsive teaching and learning environments that attend their unique and often ever-changing needs.

Of all the states of matter in the known universe, tweens most closely resemble liquid. Students at this age have a defined volume, but not a defined shape. They are ever ready to flow, and they are rarely compressible. Although they can spill, freeze, and boil, they can also lift others, do impressive work, take the shape of their environment, and carry multiple ideas within themselves. Some teachers argue that dark matter is a better analogy--but those are teachers trying to keep order during the last period on a Friday...Imagine directing the course of a river that flows through a narrow, ever-changing channel toward a greater purpose yet to be discovered, and you

have the basics of teaching tweens. To chart this river's course, we must be experts in the craft of guiding young, fluid adolescents in their pressure-filled lives, and we must adjust our methods according to the flow, volume, and substrate within each student.

It's a challenging river to navigate, but worth the journey. (Wormeli, 2006, p. 19)

In an article written for *Educational Leadership*, Wormeli (2011) refers to the middle years as being key in “hooking” kids and ensuring they are on the path not only to high school completion, but also to success in the work place. “The way we handle life in later years can often be traced back to specific experiences in middle school; it's that transformative” (p. 1). Robert Balfanz (2009), a principal research scientist at Johns Hopkins University, also presents compelling evidence that, “the middle school experience has direct correlation with graduation rates, particularly in high-poverty environments” (p. 1). Wormeli explains that if direct correlations can be found between a child's experience in the middle years and high school completion, success in the workplace and the ability to handle stress, it is unsettling that so much is often left to chance in the world's middle level learning environments. A middle years approach to teaching and learning strives to provide increased flexibility in the classroom, enabling teachers to offer more targeted support and timely intervention. This ensures that all students are intellectually engaged and challenged in their learning. Echoing what Alexander (1963) and Eichorn (1966) put forth almost 50 years ago, Wormeli (2011) and other proponents of the middle years movement in the United States continue to deem the following as keys to success in middle level learning environments:

- Interdisciplinary team organisation.
- Flexible scheduling - instructional blocks and common planning time.
- A rich selection of required core and elective subjects should be part of the curriculum.

- A focus on the components of global education should be infused throughout the curriculum.
- Carefully planned student advisory programs.
- Emphasis on cooperative learning, inquiry learning and other strategies for involving young adolescents in their own learning.
- Flexible student groupings based on interests and abilities, but not on a single achievement test. (Adapted from AMLE, 2011)

For an article that appeared in an earlier edition of *Educational Leadership*, Wormeli (2009) pulled out themes from foundational research related to teaching and learning in the middle years and identified seven conditions or categories that continue to emerge as being fundamental elements in successful middle level learning environments.

Reports from the Carnegie Corporation [Jackson and Davis] and the National Middle School Association...as well as the expertise of veteran Middle Years teachers, point to seven conditions that young adolescents crave: competence and achievement; opportunities for self-definition; creative expression; physical activity; positive social interactions with adults and peers; structure and clear limits; and meaningful participation in family, school, and community. No matter how creatively we teach and no matter how earnestly we engage in differentiated instruction, authentic assessment, and character education, the effects will be significantly muted if we don't create an environment that responds to students' developmental needs.

(Wormeli, 2009, p. 26)

Wormeli's message is clear--central to any reform initiatives introduced into middle level learning environments, must be an understanding of early adolescent learners. With

good intentions, educators often view the processes of teaching and learning as “things” that can be “done” to students, in the absence of the student voice in those very complex processes. Given the tremendous developmental changes early adolescents go through during the middle years of learning, it is perhaps more important than at any other time in their formal schooling experience that they are looked to as partners, co-designers or co-creators in their learning experience. Wormeli continues to be a strong advocate for viewing the middle years of learning as positive opportunities to support the healthy development of early adolescents.

Misunderstanding the middle. It was an article written by Cheri Pierson-Yecke (2006), for the ASCD’s *Educational Leadership*, entitled *Mayhem in the Middle*, that brought attention to the significant misunderstandings and myths that continue to exist about teaching and learning in the middle years. And, it was the subsequent rebuttal by Wormeli (2006) that clarified why various misconceptions about middle level education have been a hindrance to the positive reform initiatives currently underway for early adolescent learners. Despite the increasing number of middle schools, persistent questions remain with regards to whether the majority of these schools have authentically implemented the recommendations and philosophies that have been so widely endorsed in current middle years literature.

First and foremost, Wormeli (2006) clarifies that much misunderstanding surrounding middle level learning environments lies in the configuration versus concept/philosophy distinction. Many schools are configured to contain grade levels, most often grades 5 through 8, which would fall into the middle school category. A middle school configuration, however, does not necessarily indicate the school has adopted a middle school concept or philosophy. Similarly, a middle school concept or philosophy can exist in non-traditional middle school configurations (i.e. K-9, 4-9 or 4-6 configurations). Test scores alone cannot determine the effectiveness of a middle level learning environment, nor can statistics

specifying the number and configuration of new schools being built. Wormeli is resolute in reaffirming the importance of academic rigor and high expectations for behaviour in middle level learning environments:

The middle school concept boils down to this belief: 10 to 14-year-olds learn differently than younger and older students do, and therefore, middle school educators need to restructure curriculum and instruction and diversify our approaches to meet early adolescents' unique needs. In doing so, we don't de-emphasise student learning—we increase it. (Wormeli, 2006, para. 10)

Together with school structures and processes that support the unique learning needs of early adolescents, a strong emphasis on positive relationship development, a broad offering of core and exploratory courses and opportunities for participation in extra and co-curricular activities, middle level learning environments that unreservedly embrace a middle years philosophy are places where early adolescents can flourish.

Current Research on Adolescent Development

Adolescence itself, as it is understood and experienced in most advanced industrial societies, is the transition from childhood to adulthood, beginning with puberty. It is a period of development more rapid than any other phase of life except infancy.

Adolescent development is neither singular nor simple, and aspects of growth during adolescence are seldom in step with each other, neither within individuals nor among peers. (Carnegie Council on Adolescent Development, 1989, p. 3)

As the above passage describes, adolescence is widely recognised to be one of the most dynamic times in whole-being, multi-faceted development, second only to the rapid development experienced during infancy. While infants do not demonstrate the same conscious awareness of their development, adolescents are all too aware of the multitude of

changes happening to them. The sometimes dramatic self-awareness that accompanies early adolescent development can have a significant, long-lasting impact on the adolescent as an individual and as a learner. Research focusing on middle level reform places tremendous importance on the role of the teacher in not only supporting early adolescents through this period in their development, but in also understanding the impact this evolving development has on student learning (AMLE, 2010b; Centre for Collaborative Education, 2003; National Association of Secondary School Principals, 2006).

“Adolescence may be defined as the life span period in which most of a person’s biological, cognitive, psychological and social characteristics are changing in an interrelated manner from what is considered childlike to what is considered adult-like” (Lerner, 2005, p. 3). Apparent physical maturity may not be accompanied by the same cognitive or emotional maturity. Adolescents who may demonstrate sophisticated thinking related to one particular academic discipline may not be able to translate this same advanced thinking to sound personal decision-making (Lerner, 2005; Lerner & Steinberg, 2004; Scales, 1996; Scales & Taccagna, 2001). Consequently, any call for developmentally responsive middle level learning environments must continue to place an extensive understanding of the early adolescent learner at the centre of all reform recommendations.

Five key areas of adolescent development are commonly agreed upon in the research and should be considered when determining how to best meet the needs of these learners (Centre for Collaborative Education, 2003; Garden Valley School Division, 2010; Manitoba Education, 2010; NMSA, 1995). It important to remember that although general categories of development can be identified, adolescent development is neither linear nor does it occur in a predictable manner. As identified by the Centre for Collaborative Education in *Turning Points: The Young Adolescent Learner* (2003), and reinforced in countless of other

documents (in some cases with slight adaptations to the labels used), the five broad areas of adolescent development are:

1. Intellectual – Young adolescent learners are curious, motivated to achieve when challenged and capable of critical and complex thinking.
2. Social – Young adolescent learners have an intense need to belong and be accepted by their peers while finding their own place in the world. They are engaged in forming and questioning their identities on many different levels.
3. Physical – Young adolescent learners mature at varying rates and go through rapid and irregular physical growth, with bodily changes that can cause awkward and uncoordinated movements.
4. Emotional and Psychological – Young adolescent learners are vulnerable and self-conscious, and often experience unpredictable mood swings.
5. Moral – With their new sense of the larger world around them, young adolescent learners are idealistic and want to have an impact on making the world a better place. (p. 8)

The science and psychology of adolescence.

Adolescent physical development. As with most developmental change during early adolescence, physical development occurs at an uneven rate and is often of most concern to the adolescents themselves (McNeely & Blanchard, 2009; Strahan, L'Esperance, & Van Hoose, 2009). Extremities in the body, most noticeably the hands and feet and the ears and nose, tend to grow sooner and at a faster rate than other parts of the body, accounting for difficulties with equilibrium and sometimes coordination. It is not until later in adolescence that fine and gross motor skills improve, permitting adolescents greater control over their

developing bodies (McNeely & Blanchard, 2009; Strahan et al., 2009). Adolescence is the period of most rapid bone growth, often resulting in physical discomfort. The once separate bones of the coccyx or tailbone begin to fuse together, taking on the adult form, placing the sciatic nerve closer to the skeletal structure. These changes make it extremely difficult for early adolescents to sit--in particular, for extended periods of time (McNeely & Blanchard, 2009; Strahan et al., 2009).

The hallmark of physical growth during adolescence is often referred to as the “growth spurt,” in that significant increases in height are often seen during one short period, rather than gradually throughout adolescence. “Growing pains” is another term associated with growth in adolescence, due to the physical stress placed the adolescent body during this rapid period of growth (McNeely & Blanchard, 2009; Strahan et al., 2009). Females enter into this stage of physical growth earlier than males, reaching adult height earlier than their male counterparts; doctors maintain however, they see their young male and female patients entering into this stage earlier and earlier all of the time. Body composition also changes during adolescence; males tend to develop more lean muscle mass and lose the fat associated with childhood, while females’ ratio of body fat to lean muscle mass tends to increase. The many other physical changes associated with adolescent development and puberty (increased hair growth, changes in voice pitch, body odour and the development other secondary sexual characteristics) can leave adolescents feeling self-conscious and very unsure of themselves and their abilities. Adolescents are especially vulnerable to disordered thinking related to body image during this time period, with statistics of eating and other body dysmorphic disorders on the rise for this age group (McNeely & Blanchard, 2009; Strahan et al., 2009).

The two-part pituitary gland is sometimes referred to as the master gland. This gland is responsible for the secretion of hormones and also signals all other hormone-producing glands in the body to produce specific hormones, which determine tissue growth and

function. Changes in the pituitary gland during adolescence can sometimes lead to the release of large amounts of adrenaline at unpredictable times. What can appear as inappropriate and arbitrary outbursts of sound and movement are in fact completely explicable physiological responses to a surge of adrenaline rushing through the body of an adolescent (McNeely & Blanchard, 2009; Strahan et al., 2009).

Adolescent brain development. During the early adolescent years, the brain is still very much under development. Current research suggests that the brain does not take on what is referred to as its “adult” form until an individual reaches their early 20s (National Institute of Mental Health, 2011). Steinberg (2014) in his new book, *The Age of Opportunity*, discusses new developments in the study of the adolescent brain, which indicate that adolescence is a, “remarkable period of brain reorganisation and plasticity. This discovery is enormously important, with far-reaching implications for how we parent, educate and treat young people” (p. 60). Brain plasticity refers to the ability of the brain to be moulded, which Steinberg describes as “a process through which the outside world gets inside us and changes us” (p. 65). This knowledge of the early adolescent brain and what conditions stimulate healthy brain development are of utmost importance for teachers and parents as they work to place adolescents in Vygotsky’s (1978) “Zone of Proximal Development” and provide the necessary scaffolding to develop adolescents’ skills and abilities.

Different parts of the brain mature at different rates, adding complexity to the multitude of changes occurring in the body of an early adolescent. Cortex regions responsible for controlling basic functions (information processing from the senses, motor coordination) develop earlier on; whereas, higher order functions, such as impulse control, foreword thinking and the ability to reason are seen to emerge much later in adolescence (Friedman, 2014; National Institute of Mental Health, 2011).

Steinberg (2012) highlights four structural changes that occur in the adolescent brain as being significant. First, the process of myelination (where brain fibres become enveloped with myelin, enabling more efficient circuitry in the brain) is accelerated, and continues throughout a healthy adolescent development. This process is essential for the development of higher order cognitive functioning. Second, the grey matter in the brain responsible for housing synaptic connections where thought and memory are processed is known to be at its highest volume during early adolescence. The pruning of some connections as the adolescent matures, enabling a more efficient brain, is a normal part of maturation. These anatomical changes and efficiencies in the brain are responsible for improvement in basic cognitive functioning and ability to reason logically. Third, the connection between the limbic system and the prefrontal cortex (the anatomical regions of the brain responsible for emotional regulation) begins to strengthen. As these connections intensify, circuitry that supports the abilities of self-control and self-regulation are formed in the adolescent brain. Brain imaging scans show that the adolescent brain responds to emotionally laden imagery with a heightened response compared to older and younger subjects. Lastly, the number and distribution of dopamine receptors in the brain increases significantly during adolescence, most noticeably at the onset and throughout puberty. The neurotransmitter dopamine is deeply involved in the brain's response to pleasure and pain, perhaps shedding light on adolescents' tendency towards seeking stimulation from any number of sources (Steinberg, 2012).

It is also during this time the brain is left especially susceptible to the influences of toxins, such as drugs, alcohol and other environmental hazards; the adolescent brain responds very differently to the presence of drugs and alcohol in the body, and this poses a tremendous concern because of the increased susceptibility to addiction (National Institute of Mental Health, 2011; Friedman, 2014). Coupled with the intense hormonal changes occurring in the

body, early adolescents' ability to process and cope with both internal and external stressors is greatly compromised. At perhaps no other time in an individual's development, does sleep (or the lack thereof) have such a profound influence on both physical and mental health.

The capacity of the brain for learning is never greater than during adolescence. The adolescent brain is believed to be a formidable match for the adult brain in terms of learning. Functional brain imagery shows that when presented with the same task, adolescents and adults access different regions of the brain in the processing and execution phases of task completion (Friedman, 2014; National Institute of Mental Health, 2011). In adolescents, the parts of the brain responsible for emotions appear to fire, to some extent, during all tasks they are presented with; whereas, in general, adults appear to be able to mitigate the emotional response to most tasks. The impact this has on adolescents as learners cannot be underestimated and should be understood and utilised when designing any middle level learning environment. For teachers, this understanding of the adolescent brain is crucial in order to create a classroom learning environment that draws upon the strengths of the adolescent brain, while ensuring opportunities are presented for the brain to develop in a safe and supported learning community.

In a publication by the American Psychological Association (APA) (2002) dedicated to better understanding the impact of adolescent physical development on their psychological development, a section entitled, "Yes, it's normal for adolescents to..." described, with a touch of humour, several behaviours typical of adolescent development, and while perplexing and frustrating, are to be viewed as very normal as adolescents test both boundaries and the patience of adults. Found on the list of characteristic adolescent behaviours are: "[arguing] for the sake of arguing; [jumping] to conclusions; [being] self-centered; constantly finding fault in the adult's position; and, [being] overly dramatic" (p. 11). It is precisely this kind of

understanding that is important for educators to have as they work to create a classroom environment and teacher-student relationships founded on mutual respect and empathy.

Adolescence and sleep. Ask any parent of an early adolescent to list one of their biggest concerns related to their child's development and the amount of sleep would be near the top. A recent blog post in the New York Times (Brody, 2014) highlighted the concern many parents have about the amount of sleep their adolescent children are getting and the impact this is having on their schooling and overall well-being. Based on what we know about the tremendous diversity in the rate of adolescent growth and development, pinpointing an exact number of hours adolescents should sleep every night is often difficult. Researchers generally agree that eight and a half to nine and a half hours are the minimum amount required for healthy adolescent growth and development. Less than this amount places adolescents at an increased risk for Type 2 diabetes, obesity and a compromised immune system, as well as psychological risk factors leading to depression, anxiety and increased risk-taking behaviour. Dr. Judith Owens, lead author on an August 2014 statement released by the American Academy of Paediatrics states that, "Sleep is not optional. It's a health imperative, like eating, breathing and physical activity" (Owens as cited in Brody, 2014, para. 7). Lack of sleep has also been linked to an increased number of traffic deaths involving adolescents. Owens, who is the paediatric sleep specialist at Children's National Health System in Washington, indicates that, "Lack of sleep can be fatal. The level of impairment associated with sleep-deprived driving is equivalent to driving drunk" (Owens as cited in Brody, 2014, para. 9), and encourages parents of adolescents to reconsider giving their children permission to drive if they have not gotten enough sleep. Owens also links sleep deprivation to an increased rate of suicide attempts among adolescents, citing the impact of sleep on adolescent mood, ability to think rationally and employ good judgment.

She presents further evidence indicating that for each hour of sleep lost, adolescents are at an 80 percent greater risk for becoming obese.

The impact of sleep on adolescent learning is equally important. During sleep, the adolescent brain is able to consolidate and practice what has been learned during the day. Two phases of sleep, both Rapid Eye Movement (REM) and slow-wave sleep are especially important in an adolescent's ability to retain knowledge and skills, and place new knowledge and skills into memory (Stickgold & Walker, 2005; Stickgold & Wehrwein, 2009). Research indicates that during the slow-wave stage of the sleep cycle levels of certain chemicals in the brain fall, allowing for information to flow from the hippocampus region (responsible for memory) to the cortex regions. In the cortex, connections among nerve cells are strengthened, thereby consolidating the skills and knowledge learned during the day. These new connections are solidified during REM sleep in connections in the memory banks (Stickgold & Walker, 2005; Stickgold & Wehrwein, 2009). With as many as 80 percent of adolescents reporting they do not receive the recommended amount of sleep on school nights, the impact of sleep on the ability of the adolescent brain to process and retain what is learned in school cannot be overlooked when considering if existing school structures contribute to the problem.

Early school start times have been questioned by teachers, parents and physicians, with all groups calling for the consideration of later start times (Dement, 2000). Teachers, parents and any others who must interact with adolescents in the first waking hours of their day understand all too well how difficult this time period is for them. Any teacher who has taught early adolescents understands how challenging it can be to gain and hold students' attention during the first period of the day. A longitudinal study of over 9,000 adolescents in Minnesota found that delaying the start of the school day by thirty minutes led to adolescents being able to sleep almost an hour longer and resulted in higher grade point averages

(Wahlstrom, 2002). Students who are more alert are better able to engage in their learning, find the learning experience more enjoyable and can be more productive in school. This can reduce the amount of homework they have and make their home study time more efficient, often resulting in more time available for sleep (Dement, 2000; Wahlstrom, 2002).

The number of electronic devices available to adolescents also has been shown to negatively impact their sleep patterns. The light emitted from electronic devices has been shown to suppress melatonin production, a hormone in the brain responsible for the onset of sleep (Brody, 2014). Similarly, the overscheduled lives of many adolescents can cut into the number of hours available for sleep. Shifting circadian rhythms during puberty often make it difficult for early adolescents to fall asleep at the time their parents deem suitable; coupled with early school start times, it becomes increasingly difficult for early adolescents to obtain the recommended hours of sleep. Carskadon (1999) and Dement (2000), prominent sleep researchers from Brown and Stanford universities, have been studying the sleep/wake patterns of adolescents in their laboratories for years. Much of their research has confirmed the struggles experience by parents and adolescents over the question of sleep, including the shift in an adolescent's biological clock, where it would be expected that the longer an adolescent was awake, the more tired they would become. This proved to be true up to a point, however beyond the so-called "sweet spot" adolescents were found to become less sleepy (Carskadon, 1999; Dement, 2000). This results in adolescents being alert longer at night, when practical wisdom would suggest the need for them to be asleep.

With all that is now known about early adolescent sleep patterns and the significant role appropriate sleep plays in their healthy growth and development as individuals and as learners, it is increasingly important that schools and teachers consider these factors as they design developmentally responsive learning environments for early adolescent learners. [A poster that I have strategically placed on the wall of my adolescent son's bathroom includes

the following quotation, “A loss of one hour of sleep is equivalent to the loss of two years of cognitive maturation and development” (Sadeh, as cited in Bronson, 2007).]

Adolescence and metacognition. Metacognition is one of the currently overused educational terms associated with “21st century learning.” It is often simplistically suggested that schools and educators need to instil metacognitive ability in students in order to prepare them to thrive in an ever-changing society. Metacognition is a highly complex skill of higher-order thinking, which like other basic skills of learning, such as reading and writing, must be explicitly taught and fostered through careful design of learning tasks. The prefrontal cortex, although one of the last regions of the early adolescent brain to develop fully, is throughout early adolescence being readied for the higher order thinking skills associated with metacognition. The plasticity of the early adolescent brain is such that it is highly susceptible to stimulation; therefore, the right type of learning experiences and opportunities for reflection will support the development and strengthening of metacognitive abilities in early adolescents (Steinberg, 2014). Teachers, parents and other key adults in the lives of early adolescents are in a prime position to be able to assist them in developing the strategies of metacognitive thinking in a safe and caring learning environment.

Self-regulation is one such metacognitive strategy that Steinberg (2014) describes as “the central task of adolescence, and the goal that we should be pursuing as parents, educators and health care professionals” (p. 45). Steinberg further explains the significance and impact of self-regulation:

The capacity for self-regulation is probably the single most important contributor to achievement, mental health, and social success. The ability to exercise control over what we think, what we feel, and what we do protects against a wide range of

psychological disorders, contributes to more satisfying and fulfilling relationships and facilitates accomplishment in the worlds of school and work. (p. 45)

Studies of early adolescents in the United States, from a range of socio-economic and cultural backgrounds, show that those who scored high on measures of self-regulation, also performed better in school, had better relationships with classmates and teachers, were less likely to get in trouble and demonstrated fewer emotional problems (Steinberg, 2014).

Although conditions in the early adolescent brain are prime for development of higher order thinking skills, early adolescents require significant guidance as they begin to utilise these abilities in increasingly complex ways. Modeling the decision making process of weighing consequences and considering alternatives, assisting early adolescents in understanding the role emotions play in their abilities for self-reflection and providing opportunities for students (through carefully designed learning tasks) to ask questions about what they know, how they know it and the importance of this knowledge, all foster the development of metacognitive abilities in early adolescent learners. Metacognitive ability assists students in developing an awareness of their learning processes, as well as their strengths and areas for growth and an ability to adapt and transfer their learning into novel contexts. Students who understand the thinking, learning and problem solving strategies available to them are better able to adapt these strategies as they approach new learning tasks. Bransford, Brown and Cocking (2000) suggest that metacognitive abilities allow students “actively monitor their learning strategies and resources and assess their readiness for particular tasks and performances” (p. 67), thereby creating the conditions for students to expand their knowledge beyond surface understanding of the subject matter towards deep disciplinary ways of thinking and knowing. Research indicates it cannot be taken for granted that early adolescents either possess the abilities of metacognition or they do not--nor should it be viewed that the skills of metacognition cannot be developed. Educators can foster the

development of metacognitive abilities in their early adolescent learners; supporting students as they come to understand how they learn best and which strategies they can use to support their success in school (Steinberg, 2014).

Lerner's Positive Youth Development. Many descriptions of the developmental changes experienced during early adolescence carry with them a negative connotation. Beginning with Hall's (1904) first study in the field of adolescent development and for the next almost 85 years, adolescence was most often characterised, from scientific research and societal perceptions alike, as a time of turmoil and anxiety. Prior to the 1990s, other descriptions portraying adolescents as being "broken," "in danger" or "dangerous," or requiring extensive management to "tame uncivilised behaviour" served only to propagate the commonly held belief that adolescence was not a time to be celebrated (Anthony, 1969; Benson, Scales, Hamilton & Sesma, 2006; Roth, Brooks-Gunn, Murray & Foster, 1998). Any positive depiction of adolescence was often characterised as the absence of negative traits (Benson et al., 2006). More recent investigation into early adolescent development, such as *Turning Points: The Young Adolescent Learner* (2003), has helped frame this human growth and developmental period in a more positive light. Richard Lerner (2005) has also approached adolescence and adolescent development from a strength-based rather than a deficit-based model, through the evolution of a Positive Youth Development (PYD) perspective.

Lerner's (2005) work is founded on the beliefs that the best ways to circumvent challenges inherent in the developmental changes facing early adolescents is to focus on their strengths and view these changes as a positive phase in the maturation process. In Lerner's PYD perspective, youth who are shown to thrive in today's world are said to embody the characteristics of the "6 Cs"--Competence, Confidence, Connection, Character, Caring and Contribution. Community-based programs, along with the school, family and community are

viewed as “developmental assets,” or resources believed to provide the “social and ecological nutrients [needed] for the growth of healthy youth” (p. 27). Research has shown involvement in youth development programs such as 4-H, Boys and Girls Cubs, Scouting, YMCA, Big Brothers/Big Sisters and organised sport, who link their program outcomes to these “6C” characteristics has a positive impact on youth self-perception and self-worth (Lerner, 2005). Lerner (2005) hypothesised the existence of three key features in any developmental asset believed to support PYD--adult-youth relationships; skill-building activities; and, opportunities to utilise these skills in ways that showcase youth in a positive light in the community. Lerner (2005) summarised the PYD perspective in this way:

Replacing the deficit view of adolescence, the PYD see all adolescents as having strengths (by virtue at least of their potential for change). The perspective suggests that increases in well-being and thriving are possible for all youth through aligning the strengths of young people with the developmental assets present in their social and physical ecology. (p. 32)

Themes Emerging from Current Research Highlighted in the Literature Review

Four key themes have emerged through the literature review that was presented for this study. To some extent, these themes have been present in the literature related to leading, teaching and learning in the middle years since Alexander (1963) and Eichorn (1966) first published research on their middle school concept:

1. Developmentally responsive learning environments based on a comprehensive understanding of early adolescents and adolescent development.
2. Student-centered instructional leadership that promotes a culture of collaboration.
3. Teachers as designers of learning and assessment that serve the developmental needs of early adolescent learners.

4. Student agency and ownership of their learning.

In the Canadian educational context from which my experience originates, research from the province of Manitoba has laid the groundwork for the emergence of a strong middle years philosophy, which has also been adopted by other schools and school districts around the country. The philosophy outlined in the Manitoba middle years document further supports and links current middle years research perspectives to the four areas of foci I have identified in my research study. I have taken this work from the province of Manitoba as not only a foundation lens for this research study, but also as the basis for the very real work of teaching and learning in my own school.

Foundational Research Lens for the Study

Transforming middle years education in Manitoba. Beginning in 2007, the department of education in the Canadian province of Manitoba held a series of open forums and interviews with school division administrators, school leaders and other stakeholders in an attempt to gain a better understanding of the current state of middle years teaching and learning in the province. Information gathered suggested the typical curriculum and assessment documents, often the hallmark of system support departments, did not adequately address the needs of those working in the province's middle level learning environments. Educators in Manitoba acknowledged the unique learning needs of their early adolescent learners and pressed the department of education for further guidance, support and resources to ensure they could more effectively meet the learning needs of their students. In response, Manitoba Education identified five key action areas they committed to support and resource in order to transform middle level learning environments in their province. These five action areas are as follows:

- Understanding of and commitment to young adolescents - Effective middle years education is provided by educators who have a deep understanding of young adolescents and who are committed to meeting the needs of their middle years learners.
- Responsive teaching and learning experiences - Effective middle years schools provide young adolescents with responsive teaching and learning experiences.
- Learning relationships - Effective middle years education provides strong learning relationships for young adolescents.
- Student voice and choice - Effective middle years education offers students opportunities for voice, choice, and responsibility.
- Community involvement - Effective middle years schools have strong community involvement. (Manitoba Education, 2010, p. 3-6)

Manitoba's developmentally responsive learning environments. Identified by educators in Manitoba as the most desired outcome for middle years transformation in the province was the improvement of student engagement, as engagement was understood to be the main predictor of student attendance, student achievement, high school completion and student success and fulfillment in school and beyond. Fostering student commitment to and investment in their learning is acknowledged by the department of education to be essential in ensuring the process of disengagement from school does not befall the province's early adolescent learners. Subsequent policy documents and resources developed to support the province's middle years teachers have focused on strengthening student engagement by ensuring all those working with early adolescent learners have a sound understanding of their unique developmental and learning needs along with a strong appreciation for this age of learner (Manitoba Education, 2008, 2010).

Another area of focus for Manitoba's department of education was further developing common understanding, common language and common instructional practices that would underscore the province's philosophy for developmentally responsive learning environments that support early adolescent learners.

Responsive Middle Years education is more about teaching and learning and less about management, more about helping students to make healthy choices and less about mandating behaviour, more about using time productively and less about sticking slavishly to timetables that do not support learning, more about personal relationships and less about upholding traditional roles, and more about including student voices and less about Middle Years teachers covering curriculum. (Manitoba Education, 2010, p. 18)

In this description of developmentally responsive middle level learning environments, it is very apparent that the student is at the centre of all decisions, all practices and essentially all things related to their experience as learners. Students are viewed as essential partners in the creation of a developmentally responsive learning environment. Students work closely with their teachers as co-creators of their learning experience; students set goals, they establish criteria for successful demonstration of mastery, they articulate their progress towards given learning outcomes and monitor and adjust their learning strategies based on feedback. "Making students...prime partners [in their education] means putting them and their learning at the core of all other partnerships--and involving them directly in their process" (Hargreaves and Fullan, as cited in Manitoba Education, 2010, p. 25).

Instructional design and assessment are not viewed as separate entities, but work in conjunction with each other to inform teachers as they work alongside students to create developmentally appropriate learning opportunities. Throughout the assessment and grading

process, teachers have an opportunity to impact student motivation and engagement and the way students view themselves as learners--capable or not capable. "Assessment is not something that teachers do to students; it is a process of collaborative communication in which information about learning flows between teacher and student" (Manitoba Education, 2010, p. 10).

Further, in developmentally responsive learning environments, the establishment of a learning community, where teachers support and mentor students and where students serve as positive support systems for each other, is essential to ensuring early adolescents feel valued as contributing members of the classroom and larger school community (Manitoba Education, 2010). This increased student ownership of and agency in their learning is not thrust upon them all at once, but gradually, within a supportive learning environment with trusted peers and teachers. Middle years teachers who truly understand the nature and needs of early adolescent learners focus on building appropriate learning relationships, which differ from those relationships that exist outside of the school context. These learning relationships provide an appropriate balance between high expectations for behaviour and achievement and the nurturing supports necessary to meet these expectations.

In a developmentally responsive learning environment, learning relationships are also seen as extending beyond the classroom and school, into the community. Opportunities for early adolescents to contribute to their communities in positive ways are important components in their healthy social and moral development. Increased opportunities for positive contact among early adolescents and the various individuals, groups and organisations that form their community promote understanding and the building of mutual respect among these groups. Developmentally speaking, early adolescents are highly susceptible to influences, both positive and negative; Manitoba's department of education believes the establishment of a community that supports the healthy development of its early

adolescents is of utmost importance in ensuring the success of these learners both inside and outside the four walls of the school. “It takes a village to raise a child. The modeling of conduct we desire students to emulate is an ongoing responsibility for all adults in a child’s life; at school, at home and at play” (Manitoba Education, 2010, p. 27).

Research Perspectives that Underpin the Study

As I examine the research coming from many parts of the world related to educational reform in middle level learning environments, I return to Alexander and Eichorn’s work in the early 1960s. For over 50 years proponents of the middle years movement have been articulating the same beliefs related to developmentally responsive and intellectually engaging learning environments for early adolescent learners. Whether they come in the form of cornerstone strategies, foundational principles or effective teaching practices, both current research and practical classroom-based wisdom continue to articulate a clear vision for how to transform leading, teaching and learning in the middle years

Using the Manitoba Education middle years document as a foundational lens from which to view the related research of Viviane Robinson, Sharon Friesen and the Canadian Education Association (CEA) and Carol Dweck, the four central themes emerging from the literature review, (developmentally responsive learning environments based on a comprehensive understanding of early adolescents, strong instructional leadership, effective teacher practices, and student agency), will be further developed. While other research in the area of leading, teaching and learning in the middle years may have touched on one or more of these themes, it is the particular perspective these three researchers have taken in their field of expertise, when positioned against the middle years lens, that I believe will contribute new insights into the study of learning environments that best support the unique learning needs of early adolescents.

Viviane Robinson: Student-Centered Leadership. Viviane Robinson is a professor in the Faculty of Education at the University of Auckland and the director of the Centre for Educational Leadership there. Robinson's 2011 book entitled *Student-Centered Leadership* offers guidance and practical wisdom based on what she describes as a "rigorous analysis of all the published evidence about the impact of particular types of leadership practice on a variety of student outcomes" (Robinson, 2011, p. 8). Robinson is careful to distinguish between leadership styles and leadership practices and insists *Student-Centered Leadership* is not another "call to the moral high ground" (p. 1) or an attempt to classify educators as a particular type of leader, some types being perceived as more worthy than others. Both the concept of "student-centered leadership" and Robinson's book of the same title, "seek to increase leadership influence" (p. 8) in ways that will have the biggest impact on the learning and well-being of students.

In Robinson's (2011) analysis of over one thousand studies, she discovered that very few studies actually examined the link between educational leadership and student outcomes. Robinson highlights a disconnect between perceptions of the function of educational leadership and the essence of teaching and learning in a school. The findings she presents in her book derive from a meta-analysis of the few studies (approximately 30) that either directly or indirectly reported on the impact of leadership on student outcomes (Robinson, Lloyd & Rowe, 2008). Resulting from this research are the five broad categories of leadership dimensions that are believed to have the most significant impact on student outcomes:

1. Establishing goals and expectations;
2. Resourcing strategically;
3. Ensuring quality teaching;

4. Leading teacher learning and development;
5. Ensuring an orderly and safe environment. (Robinson, 2011, p. 9)

Robinson terms these five dimensions the “what” of student-centered leadership. The “how” of student-centered leadership (the knowledge and skills necessary to engage in the day-to-day practices underpinning the leadership dimensions) comes in the form of three leadership capabilities:

1. Applying relevant knowledge;
2. Solving complex problems;
3. Building relational trust. (Robinson, 2011, p. 16)

As shown in Appendix D, the five student-centered leadership dimensions are presented, along with their effect size, not in ascending numerical value, but in a manner Robinson described in a recent keynote address as significant nonetheless (Robinson, Calgary Ideas Conference, 2014). For Robinson, the order the leadership dimensions appear in is significant in the way they connect to and build upon one another. Similar to other research presented in the literature review related specifically to recommendations for middle level learning environments, Robinson’s leadership dimensions are to be taken as an interrelated whole, not “a menu from which to pick and choose.” Appendix E shows the interconnected nature of the five leadership dimensions and associated three leadership capabilities. What should begin to emerge through close examination of this graphic is the understanding of how an instructional leader’s capacity to confidently engage in the three leadership capabilities provides them with the opportunity to interact with the leadership dimensions in a manner that will positively impact student learning (Robinson, Calgary Ideas Conference, 2014).

Student-centered leadership is instructional leadership that makes a difference to the equity and excellence of student outcomes (Robinson, 2011). The leadership dimensions outline clear direction for leaders, identifying what they need to do in order to have a bigger impact on student learning. In her keynote address at the Calgary Ideas Conference, Robinson articulated her “big message” as being the following, “the more leaders focus their relationships, their [daily] work and their [professional] learning on the core business of teaching and learning the greater their influence on student outcomes” (Robinson, Calgary Ideas Conference, 2014). She went on to indicate that leadership in schools is based all too often on management of resources, people, time and money, on the building of relationships with adults and other partners and, more recently, on what is perceived as “innovation.” This has overshadowed what should be the central purpose of all we do in education, and that is improving student outcomes. While the work of a school principal is sometimes one step removed from working directly with students in classrooms, Robinson articulates that it is in the creating of the conditions for teachers to do their work where principals have the most impact on students:

There are compelling ethical arguments for student-centered leadership. Because the point and purpose of compulsory schooling is to ensure that students learn what society has deemed important, a central duty of school leadership is to create the conditions that make that possible. (Robinson, 2011, p. 4)

Attending to the five leadership dimensions while effectively employing the leadership capabilities creates the conditions in which school environments can become places where all early adolescents can experience success. When goal setting is done carefully, in an informed manner, and with the proper intentions, it can have a powerful effect on a school and the sense of purpose those operating within the school have in moving learning forward. The leadership dimension of establishing goals and expectations, is listed

as first among Robinson's leadership dimensions, and the reason is clear--creating a vision for the school, the students and the teachers, tied to what is valued most serves to "focus the collective effort of staff on agreed priorities" (Robinson, 2011, p. 12). According to Robinson, the conditions required to effectively set goals are: specific and unambiguous goals; staff commitment to the goals (consensus is not necessary, but commitment is); and, staff capacity to achieve the goals. Staff capacity to achieve goals is an issue Robinson articulates as something instructional leaders often overlook in the establishment of goals and expectations. This needs to be addressed in an open and honest manner as, "holding people accountable to goals they don't have the capacity to achieve is a pretty punishing form of leadership" (Robinson, Calgary Ideas Conference, 2014).

Once goals and expectations have been established and the values behind them understood, the work of the instructional leader takes the form of motivating consistent goal-relevant behaviour. Robinson indicates that two or three goals are the limit of what instructional leaders and their teachers can skillfully manage and still feel they are working successfully towards intended expectations and outcomes. Not everything can be important, therefore what needs to be reflected in the established goals and expectations must relate to desired student learning outcomes (Robinson, Calgary Ideas Conference, 2014).

Robinson (2011) writes that strategic resourcing must be accompanied by strategic thinking, and is something easier said than done. "Strategic thinking involves asking questions and challenging assumptions about the links between resources and the needs they are intended to meet" (Robinson, Calgary Ideas Conference, 2014). Here, the intent with which Robinson presented her leadership dimensions begins to emerge. Resources must be allocated to key priority areas identified in the process of establishing school goals and expectations. Furthermore, instructional leaders must have clarity about what is and what is not being resourced and why. Robinson (2011) indicates that goals or strategies labeled as

“innovation” can be very tempting for instructional leaders, taking away valuable time, energy and sometimes money, often without a significant return (2011). During times when resources are scarce, particularly financial resources, and instructional leaders are asked “to do more with less,” strategic resourcing becomes increasingly important.

Ensuring quality teaching is the third dimension of Robinson’s student-centered leadership. In order for leadership practices to be informed by evidence, Robinson (2011) articulates that leaders need “an explicit and defensible theory [of quality teaching]” (p. 13) which can then be used to measure the effectiveness of teacher practice. This is about leaders understanding which teacher practices have the greatest impact on student learning outcomes. Effective teaching maximises the time learners are engaged with and successful in the learning of important outcomes (Robinson, Calgary Ideas Conference, 2014). Again, the role of instructional leaders is creating the conditions that support and promote their identified theory of quality teaching and learning. It is in this dimension where the work of the principal as instructional leader is perhaps most important. Robinson’s research reveals that in schools where instructional leaders are heavily involved in developing and safeguarding a coherent instructional program, providing teachers with beneficial feedback about their teaching and also using available data to ensure the instructional program is supporting identified goals, the students “simply do better.”

Dimension three then flows into dimension four, which is leading teacher learning and development--the leadership dimension shown to have the largest effect size. Instructional leaders need to be present in the classrooms of their schools in order to understand the relationship between what is being taught and what students are learning, and then make informed decisions about what teacher professional learning is needed to move learning forward (Robinson, Calgary Ideas Conference, 2014). The experience and expertise of the instructional leader is essential in understanding which types of professional learning will

have the most significant impact on desired teacher professional growth, and consequently, on student learning. Instructional leadership that has the most significant positive impact on teacher professional growth not only promotes but also directly participates with teachers in formal and informal professional learning (Robinson, Calgary Ideas Conference, 2014). This builds leadership credibility and allows instructional leaders to be closely involved in the professional learning and the professional conversations that move teachers beyond the “land of nice” that Elmore (2010) often refers to, into a place where the real work of transforming teaching and learning can begin.

Robinson views the fifth dimension, ensuring an orderly and safe environment, as foundational to the other four dimensions and asks readers to view this dimension with an educational rather than a managerial lens. “The purpose of Dimension Five leadership is to create a school environment that promotes the willing engagement of students in their own learning” (Robinson, 2011, p. 127). Numerous research studies support the notion that learning is negatively impacted if students do not feel safe at school or if they perceive the locus of control for success in their learning lies outside themselves (Bryk, Sebring, Allensworth, Luppescu & Easton, 2010; Deci & Ryan, 2000; Wang & Holcombe, 2010). Similarly, if the learning environment of the school is not in order, the work of the teacher becomes increasingly difficult, and working collectively towards any identified goals and expectations becomes secondary to managing behaviour. Student-centered instructional leaders consider parents and other community partners as key in supporting student engagement and in developing the foundation for a safe and caring school community.

Using the lens of the Manitoba Education middle years document, it is clear that Robinson’s student-centered leadership philosophy aligns with the type of instructional leadership vital in developmentally responsive and intellectually engaging middle level learning environments. Instructional leaders who are deeply involved in the teaching and

learning taking place in the classrooms of their schools, develop a better understanding of the unique learning needs of their early adolescent learners as well as the instructional practices that will support these learning needs. Establishing and articulating goals and expectations that support a theory of quality teaching and learning in the context of early adolescent learners will ensure the collaborative focus is clear. The importance of ongoing professional learning that promotes a better understanding of early adolescent learners, along with instructional design and assessment practices that increase student agency and ownership in their learning, has, in the context of Robinson's work, the biggest impact on student learning outcomes. Finally, the importance of the school environment for early adolescent learners is clear. With the vast number of developmental changes early adolescents experience during this time period, ensuring they feel safe and supported (as individuals and as learners) is key to their academic success and healthy development.

What did you do in school today? and Effective teacher practices. Particularly relevant to the daily work of the teacher of early adolescent learners is a teaching framework that is perceived as accessible, applicable and in alignment with current evidence related to effective teaching practice. Recent research from the CEA, *What did you do in school today?* (2009) and one of the principal researcher's subsequent *Teaching Effectiveness Framework* (2009), are two pieces of research I believe will serve to inform the examination of the effective teacher practices that have the most significant impact on teaching and learning in middle level learning environments.

In 2006, the CEA, in response to growing concern about the lived educational experiences of adolescents in Canada, identified the adolescent learner as a core priority. The CEA's multi-year, *What did you do in school today?* research and development initiative began shortly thereafter in 2007. Douglas Willms, Sharon Friesen, Penny Melton and other researchers involved in the *What did you do in school today?* (2009) research study,

hypothesised that transformation of the educational experiences and increased achievement for all adolescents in Canada was possible. Carole Olsen, then president of the CEA, explained that:

From CEA's standpoint, the process of transforming schools to improve learning will require a significant shift in our current designs for learning, the beliefs we hold about the purpose of schooling, and the knowledge we draw on to understand adolescent learning and development. (Willms, Friesen & Milton, 2009, p. 1)

The intent behind *What did you do in school today?* was twofold: one, explore how student engagement and effective teaching practices impacted adolescent achievement; and two, begin a dialogue with Canadian educators about new ideas that would enhance the learning experiences of adolescents in classrooms and schools. While significant findings and important insight have come from the study, in the context of teaching and learning in the middle years, two key elements of the CEA work, the concept of intellectual engagement and the *Teaching Effectiveness Framework* are most relevant.

Engagement is one of those terms that can easily fall into the educational jargon category. While, many beliefs and definitions can be found related to student engagement, there seems to be no disagreement with the fact that adolescents' engagement or disengagement in school has a profound impact on their quality of lives both inside and outside of school (Willms et al., 2009). Researchers involved in the *What did you do in school today?* study carefully investigated the concept of student engagement. This research further developed existing concepts of social and academic engagement and also contributed another dimension of engagement--intellectual engagement. For the purpose of the *What did you do in school today?* study, three elements of student engagement were used to more closely examine adolescents' lived experiences in school:

1. Social Engagement - A sense of belonging and participation in school life;
2. Academic Engagement - Participation in the formal requirements of schooling;
3. Intellectual Engagement - A serious emotional and cognitive investment in learning, using higher-order thinking skills (such as analysis and evaluation) to increase understanding, solve complex problems, or construct new knowledge.
(Willms et al., 2009, p. 7)

Over the course of the multi-year study, more than 63,000 adolescents from across Canada provided data in the form of survey responses. Four fundamental questions related to student achievement were examined further in specific student survey questions:

- Are Canadian youth engaged at school?
- How much does family background matter?
- Do schools make a difference?
- Does instructional challenge make a difference? (Willms et al., 2009, p. 17)

Initial study findings revealed that many students demonstrate engagement on some level, albeit, to a much lower degree than educators would expect. Highest levels of engagement were seen in the areas of social engagement; 67 percent of students felt a sense of belonging, tied primarily to peer friendships and having little to do with the learning itself. Sixty-nine percent of students reported being academically engaged, with attendance patterns serving as the main indicator. Alarming, based on the instrument used, only 37 percent of students reported being intellectually engaged in their schooling (Willms, et al., 2009). This translates into students feeling disconnected from their learning, feeling as though they have no voice in their learning, and feeling their learning has little relevance to the world outside. Study trends revealed that across all three categories of engagement, identified predictors of

engagement fell steadily from grade 6 to grade 12, with one exception (engagement based on a sense of belonging, which remained relatively consistent throughout the adolescent years.) Both female and male participants demonstrated, based on the instrument used, similar levels of social and academic engagement; however, in the area of intellectual engagement, females consistently scored five to nine percentage points higher (Willms et al., 2009).

Comparisons among the 67 schools who participated in the first year of the study, show huge variability in measures of student engagement, with the greatest contributing factors to this variability resting in the area they term the “learning climate.” Learning climate encompasses elements such as: effective learning time; teacher/student relations; classroom disciplinary climate; expectations for success; and, instructional challenge (Willms et al., 2009). Variability within a school in the categories of instructional climate was found to be greater than the variance between schools (Willms et al., 2009). The relationship between instructional challenge and student engagement was found to be more significant than what was perhaps initially expected. Research results revealed that one-quarter to one-third of adolescents reported lacking confidence in their abilities in core language arts and mathematics classes. However, this feeling was mitigated when students reported feeling as though the work their teachers gave them was challenging and relevant, and they could experience success.

The research team found that contrary to what they initially believed, students’ family backgrounds and accompanying socio-economic status had little impact on student levels of intellectual engagement (Willms et al., 2009). More puzzling is the fact that taken as a whole, Canadian students continue to score well on international tests of achievement, even though less than half of adolescent learners report being deeply engaged in their schooling; engaged in ways that lead to the development of the knowledge, skills and understanding that will allow them to thrive and contribute as citizens (Willms et al., 2009). After this multi-

year, cross-Canada research study, two challenges emerged as significant issues facing Canadian schools and teachers. The questions of, “how do teachers design instruction for students who struggle and lack confidence in their abilities and how do teachers appropriately challenge and extend the learning of students who are confident learners” (Willms et al., 2009, p. 31) led to the development of the *Teaching Effectiveness Framework* (Friesen, 2009).

The *Teaching Effectiveness Framework* arose as researchers began to pull together evidence of classroom practices that make a difference in student levels of intellectual engagement and, consequently, student achievement. In my professional context, this framework has formed the foundation for the work in one network group of 44 schools, as instructional leaders and teachers delve into the leadership dimensions and classroom practices that will have the greatest impact on student achievement. Jardine, Clifford and Friesen (2008) described the need to rethink the way teachers and students interact with the curricula in order to move towards “learning as understanding” for all students--“What began with such enthusiasm and hope around a century ago in the organisation and imagining of schooling has simply worn out” (p. 14). Similarly, Eisner (1998), remarked, “New paradigms of teaching and learning are pushing us toward more generous and realistic educational policy affecting how teachers are to function” (p. 111). One adolescent student involved in the *What did you do in school today?* study commented, “The only difference between me, the 95% student, and that guy sitting in the back of the room is that I have learned how to remember, recall and regurgitate, and he hasn’t, can’t or won’t” (Willms et al., 2009, p. 33).

The work teachers and students engage in together in the classroom must be thought of as a reciprocal process, leaving the notion of a one-way exchange of information from teacher to student in the industrial era in which it originated (Willms, et al., 2009). Learning

with understanding, as opposed to the acquisition of facts and memorisation as the above quotation from a student alludes to, requires teaching practices that build strong relationships, provide students with work authentic to the disciplines they study and view the classroom as a knowledge-building environment, constructed by the ideas of both teachers and students. Key elements of classroom practices that have the greatest impact on intellectual engagement are put forward in five principles, each developed on a continuum in the *Teaching Effectiveness Framework* (see Appendix F). The five core principles of effective teaching practice are:

1. Effective teaching practice begins with the thoughtful and intentional design of learning that engages students intellectually and academically.
2. The work that students are asked to undertake is worthy of their time and attention is personally relevant, and deeply connected to the world in which they live.
3. Assessment practices are clearly focused on improving student learning and guiding teaching decisions and actions.
4. Teachers foster a variety of interdependent relationships in classrooms that promote learning and create a strong culture around learning.
5. Teachers improve their practice in the company of peers. (Friesen, 2009, p. 4)

Embedded in each of the five principles of effective teaching practice are the current technologies that support, enhance and extend both teaching and learning.

In the context of middle level learning environments, the five principles of Friesen's (2009) *Teaching Effectiveness Framework* are particularly relevant to ensuring early adolescent learners, who are shown to be vulnerable and at risk for disengagement in their

learning, remain connected to and supported in their learning. Although many cognitive changes are taking place in early adolescence, there is no better time to engage these students in the ways of thinking and doing true to the disciplines they are studying (Friesen, 2009). Work early adolescents engage in should be worthy of their time, allowing them to collaborate and connect with peers, their teacher and experts in the discipline. Assessment cannot be seen as separate from the instructional design process, and similarly, cannot be seen as something meant only for the teacher. Assessment is most meaningful to students and supports them in their growth when they work together with their teachers and peers to create clear criteria for success. Ongoing feedback becomes an integral element in student self-assessment and the subsequent adjustments they make to their learning strategies.

Research presented in the middle years literature review highlighted the importance of healthy relationships in the development of early adolescents, both as individuals and as learners. Friesen's (2009) *Teaching Effectiveness Framework* identifies the need for three types of strong relationships to exist in order to support ongoing student engagement and success: students' relationship to the work they engage in and an understanding of why this work is important to them and in the real world; teachers' relationships with the students, making their thinking and problem solving processes visible to students in order to support the development of these abilities in their students; and, students' relationships with each other, collaborating to build collective capacity and understanding (Friesen, 2009).

The final principle of the *Teaching Effectiveness Framework* focuses on the understanding that teaching is not a solitary pursuit and that professional collaboration makes everyone better. The image of the teacher as a model of lifelong learning is important not only as a model for their students, but also to ensure the teaching profession is in a continuous cycle of improvement. Ongoing professional learning and professional dialogue about how to best support early adolescent learners guarantee the most current professional

knowledge and collective wisdom is being used to create developmentally responsive and intellectually engaging middle level learning environments.

Carol Dweck and the growth mindset. It may come as a surprise to many that French psychologist, Alfred Binet, who is credited with developing the first intelligence test, one that is commonly used to label, sift and sort children and adults alike, actually acknowledged the limitations of a single test to define the multifaceted concept of intelligence (Siegler, 1992). Binet himself, believed that intelligence should be seen as more fluid, having the capacity to change over time, given the appropriate conditions. Dr. Carol Dweck, psychologist from Stanford, has provided ample current research to support Binet's belief in the ability of individuals to essentially "grow" their intelligence (Dweck, 1999). Dweck found that the type of feedback students are given and the manner in which that feedback is delivered could profoundly impact students' perceptions of their abilities as learners--capable or not capable, failures or successes. Her early interest in "attribution theory" laid the foundation for her subsequent work on the growth mindset, as it was Dweck's curiosity with how individuals attributed their successes and failures that prompted her to delve further into the practical application of attribution theory (Krokovsky, 2007).

The next step towards the development of Dweck's growth mindset theory came as she and colleague, Elaine Elliot (1988), studied students who appeared to demonstrate learning-oriented goals versus students who set performance-based goals. Dweck explained, "learning goals inspire a different chain of thoughts and behaviors than performance goals" (Krokovsky, 2007, para. 12). Students who want only to demonstrate how talented they are, how smart they are or how well they can do something tend to focus on self-image and self-preservation. Any setback these students encounter is viewed as a threat to their self-esteem, and consequently they tend to avoid challenges or activities outside of their comfort zones. Alternatively, students who demonstrate learning goals view setbacks, mistakes and

challenges as opportunities for growth. The notion of “fixed” and “growth” mindsets began to emerge as Dweck suggested that students who set performance-based goals demonstrated a fixed mindset, while those students who had learning as their primary purpose showed the traits of a growth mindset--the belief that over time, with effort, persistence and hard work intelligence and other abilities can developed. Contrasting this is the fixed mindset where basic traits are viewed as being innate and therefore cannot be altered (Dweck, 1999, 2007, 2008; Grant & Dweck, 2003; Mueller & Dweck, 1998). And so, began a new branch of educational psychology credited to Dweck’s name, “achievement goal theory.”

Much of Dweck’s recent research has continued to focus on schools and students. She has been captivated with questions surrounding failure and motivation and why some students give up when they face setbacks and others become motivated to try even harder. Some of the most compelling evidence supporting Dweck’s beliefs around the growth mindset has come from a study involving grade seven students struggling in the discipline of mathematics (Blackwell, Trzesniewski & Dweck, 2007). Two groups of students were exposed to the same information sessions related to study skills. One group of students received additional instruction on the basics of memory. The second group received information about intelligence and neuroscience and how it was possible to train your brain like a muscle. Research indicated that the group of students who began to see their intelligence as something they could impact directly through “training,” hard work and practice dramatically outperformed the first group on subsequent math tests.

The notion of “growing your intelligence” becomes increasingly important as schools prepare today’s early adolescent learners for life in a society that is continually evolving (Dweck, 2008). The growth mindset is fundamentally about valuing hard work and perseverance. It is about students understanding that this power to work hard and persevere and become smarter does in fact lie within each of them. Awareness of and putting into

practice key principles of the growth mindset supports students in understanding how they can positively impact not only their cognitive abilities, but also tap into those deeper skills of metacognition, coming to know themselves as learners. Dweck's (2007, 2008) research has reinforced with educators that it is often people not programs who have the most significant impact on student achievement and the "people" who can make the most difference are the students themselves.

The importance of student agency and ownership in their learning is critical for early adolescents as they work to build their sense of identity, not only as a learner, but also as a contributing member of society. For Dweck, the type of learning tasks students are given plays a significant role in building student agency and developing a growth mindset. In a 2010 article in ASCD's *Educational Leadership*, Dweck writes,

I believe meaningful work can also teach students to love challenges, to enjoy effort, to be resilient, and to value their own improvement. In other words, we can design and present learning tasks in a way that helps students develop a *growth mindset*, which leads to not just short-term achievement but also long-term success. (Dweck, 2010, p. 16)

Therefore, creating a classroom culture that fosters a growth mindset, through the creation of developmentally appropriate learning tasks and through careful attention to the type of feedback and the way in which that feedback is given, teachers can significantly impact the way early adolescents view themselves as learners.

Perhaps one of the most powerful lessons for middle years teachers emerging from Dweck's vast body of work comes in the simple form of the word "yet." The assessment process, which inevitably at several points during the year translates into a formal report card grade or mark, can be a stressful and anxiety filled time for many early adolescent learners.

Dweck gives an example from a school she has worked with, where instead of issuing a student a failing or incomplete grade on a report card, the words “not yet” appear (Dweck, 2010). When students see “not yet” versus a “0” or an “F” or “40%,” the first message is that while students have not yet mastered the learning outcome, it is still expected that they work towards mastery. “Not yet” is also a signal to teachers that even though the concept may have been taught, students have not yet demonstrated they understand it, and this should inform next steps in teaching:

Whenever students say they can't do something or are not good at something, the teacher should add, "yet." Whenever students say they don't like a certain subject, the teacher should say, "yet." This simple habit conveys the idea that ability and motivation are fluid. (Dweck, 2010, p. 20)

Leading, Teaching and Learning in the Middle: Literature Review Summary

At this point, it is perhaps important to reiterate that since its first inception in the early 1960s by Alexander and Eichorn, there has been little change in the foundational tenets of the middle years philosophy. It is hoped throughout this review of literature, the fundamental underpinnings of the middle years philosophy were very apparent in each of the pieces of research that have been presented. The early adolescence period of human development is understood to be complex, and the experience of early adolescents in middle level learning environments is supported by research to be instrumental to success in high school, post-secondary school and career futures. Despite how central this period of development is agreed to be, there exists a significant gap in countries around the world in how consistently the practices and beliefs known to be essential for the establishment of developmentally responsive, intellectually engaging middle level learning environments are implemented. It is believed that this study, with a focus on leadership dimensions, teacher

instructional practices and student agency in the context of middle level learning will provide a new lens through which to better understand what factors contribute to the establishment of developmentally responsive, intellectually middle level learning environments.

Chapter Three – A Collective Case Study Examination: The Methodology

This chapter begins with an overview of the research paradigm chosen for this study, followed by a description of the methodological decisions that influenced the design of the research study and the methods that will be applied to the collection, analysis and reporting of data. For many neophyte researchers, research courses and accompanying texts can be quite confusing to navigate. It is important to begin with a clear understanding of the nature of research, the terms that are regularly used (and often used incorrectly) and the “why” behind the decisions that were made when determining the best way to approach answering the identified research question(s). Completed research studies are often presented and packaged as a whole, moving quickly to the results of the study, with very little mention of the thought process that went into the early work of designing the research study. It is for this reason, I will pause for a moment to outline my understanding of the research process and the issues I considered when selecting the design for my research study. What follows has been an essential step in the research process for me, as it was only through this “coming to terms” of sorts that I was able to make what I believe to be the correct decisions surrounding my own research design.

Coming to Terms with the Research Process

Researchers frequently label themselves as either quantitative or qualitative, with the latter often associated with disciplines in the field of social sciences (psychology, sociology, education...) (Guba & Lincoln, 1994). I believe this to be a misnomer, as it gives the impression of quantitative and qualitative as being overarching theoretical frameworks or paradigms in the research process. Quantitative, qualitative or even mixed-methods, are terms best thought of as approaches or methods a researcher may apply to data collection, data analysis and the reporting of findings. Mac Naughton, Rolfe and Siraj-Blatchford

(2001) provide a definition of paradigm, which includes three elements: a belief about the nature of knowledge, a methodology and criteria for validity (p. 32). I understand a research paradigm to be the larger theoretical framework or the worldview, which is the essence of how a researcher sees the world, and at one point in time, hopes to understand the identified research question.

The paradigm or theoretical framework influences the way a particular phenomenon is studied and interpreted. It is the choice of paradigm that sets down the intent, motivation and expectations for the research. Without nominating a paradigm as the first step, there is no basis for subsequent choices regarding methodology, methods, literature or research design. (Mackenzie & Knipe, 2006, p. 193)

The research design is the plan and procedures outlined by the researcher in order to investigate the identified research question. This includes both general assumptions and also more detailed methods of how data will be collected, analysed and reported (Mackenzie & Knipe, 2006). Therefore, before the research design can be determined, the researcher must have a clear understanding of their own ontological, epistemological and methodological preferences along with a well-defined formulation of the research question(s) to be answered. These two elements, first the paradigm and then the research question(s), should ultimately influence the choice of methodology, which then determines the design of the study and subsequently the methods for how data will be collected, analysed and reported (qualitative/quantitative or mixed methods).

Table 1 (adapted from Mackenzie & Knipe, 2006) presents a very general overview of four major paradigms researchers may choose to adopt when examining a particular research question, along with examples of commonly used methodologies and associated research designs and methods of collecting data. Note that both quantitative and qualitative

research design methods are included in this table. Positivist and postpositivist paradigms are most commonly aligned with quantitative methods of data collection and analysis.

Constructivist approaches to research have the intention of understanding "the world of human experience" (Cohen & Manion, 1994, p. 36), suggesting that "reality is socially constructed" (Mertens, 2005, p. 12). Transformative researchers "believe that inquiry needs to be intertwined with politics and a political agenda" (Creswell, 2003, p. 9) and contain an action agenda for reform "that may change the lives of the participants, the institutions in which individuals work or live, and the researcher's life" (Creswell, 2003, p. 9-10).

According to Creswell (2003) the pragmatists are concerned with practical applications and solutions to problems. The research question comes most often in the form of a problem to be solved, with any and all methods considered appropriate for resolving the problem.

To further complicate things for a novice researcher, within a qualitative research design or orientation towards collecting, analysing and reporting of data, Guba and Lincoln, (1994, 1995) further outlined four paradigms that may guide the actions of the researcher. Guba and Lincoln (2005) have recently included a fifth paradigm that would employ qualitative research methods to reflect the, "substantial changes that have occurred in the landscape of social scientific inquiry" (p. 191). These five paradigms employing qualitative research designs are identified as follows: positivist, post-positivist, critical theory, constructivism, and the newly included participatory paradigm (Guba & Lincoln, 2005).

Next, comes the question of methodology. The methodology selected by the researcher for a research study is influenced by their particular worldview or paradigmatic stance. The most common definitions view methodology as, "the overall approach to research linked to the paradigm or theoretical framework" (Mackenzie & Knipe, 2006, p. 198). Within each paradigm, there exists multiple methodologies; consideration must be given to inherent strengths and weaknesses of potential methodologies as well as theoretical

foundations underpinning the methodologies when selecting the appropriate methodological perspective from which to approach the research question. Thought must be given to how the researcher would like to present the findings, as this will also impact the chosen methodology and subsequent research design (Lauckner et al., 2012).

Table 1 (adapted from Mackenzie & Knipe, 2006, p. 197)

Paradigms, Methodology, Research Design/Methods & Data Collection Tools

Paradigm	Methodology (examples)	Research Design/Methods & Data Collection Tools (examples)
Positivist/ Postpositivist	Experimental Quasi-experimental Correlational Reductionism Theory verification Determination	Predominantly quantitative methods, although qualitative can be use within the positivist/postpositivist paradigm (Mertens, 2005). Experiments, quasi-experiments, tests, scales
Constructivist	Naturalistic Phenomenological Hermeneutic Ethnographic Case Study Grounded Theory	Qualitative methods predominate although quantitative methods may also be utilised. Interviews, observations, document reviews, visual data analysis
Transformative	Critical theory Neo-marxist Feminist Critical Race Theory Freirean Advocacy	Qualitative methods, quantitative and mixed methods. <i>Contextual and historical factors described, especially as they relate to oppression</i> (Mertens, 2005, p. 9) Diverse range of tools - particular need to avoid discrimination. E.g. sexism, racism, etc.
Pragmatic	Consequences of actions Problem-centred Pluralistic Real-world practice oriented Mixed models	Qualitative and/or quantitative methods may be employed. Methods are matched to the specific questions and purpose of the research. May include tools from both positivist and interpretivist paradigms. E.g. interviews, observations and testing, experiments, etc.

The final piece to consider in the processes of research and research design is the method or methods that will be used to collect and analyse the data. Mackenzie and Knipe (2006) explain research method(s) as encompassing, “systematic modes, procedures or tools used for collection and analysis of data” (p. 198). The selection of research method must focus on which method (and in some cases, methods) is most appropriate and will provide the most depth and richness for a particular research question. It is perhaps here that the terms qualitative and quantitative are most relevant, as it is the collection, analysis and reporting of data that are quantitative (experiments, surveys, tests) or qualitative (interviews, observations) in nature.

Table 2 (adapted from Lauckner et al., 2012, p. 2)

List of Methodological Questions

1. What aspect(s) of leading, teaching and learning in middle level learning environments do I want to better understand?
2. How do I best frame my research question to ensure I am gathering data that will inform this area of focus?
3. How can I integrate my chosen research approaches (case study design and constructivist grounded theory approaches) to ensure methodological congruence?
4. How does the chosen paradigm influence the research process and how can I ensure commitment to the chosen paradigm?
5. Considering all the information I could gather about these cases, how can I theoretically structure data collection to best answer the research question(s)?
6. What sites will provide the best opportunity to learn about the posed research question?
7. How do I ensure I gather relevant and useful data that corresponds to my chosen methodology and research paradigm?
8. How do I best store and organise my data in preparation for data analysis?
9. How do I balance the intricacies and detailed richness of the individual cases with the aim of generating an abstract theoretical framework?
10. To what extent can I and others trust the conclusions I have come to through this research process?

Table 2 is adapted from a table presented by Lauckner et al. (2012) as a means of outlining the many questions a researcher must consider throughout the research process (p. 2). While specific to the lead author’s research study, this line of questioning was helpful as I

attempted to resolve how to best approach answering my own research questions. I developed further understanding that the research process is rarely one that is linear or found to follow a prescribed set of rules. Through this overview of the research process, I grappled with the many considerations involved in and influencing the undertaking of research. It has become clear to me that the theoretical orientation of the researcher impacts every decision made in the research process, from the choice of methodology, to the selection of method(s) and the subsequent treatment of data.

Social Constructivist Research

Careful consideration must be given to the researcher's own ontological and epistemological beliefs to ensure a sound research design is created, as it is this very "big-picture" way of viewing the world that will influence all subsequent decisions in the research process. While not the first time I have been presented with the task of reflecting on my beliefs about the nature of reality and knowledge, through the undertaking of my own research study, it was the first time I was really faced with understanding the implications these beliefs would have on how the design of my research study would unfold.

My worldview is constructivist in nature and because of the very social nature of the world of education, the ways in which early adolescents learn best and the collaborative work of instructional leaders and teachers, I would emphasise the social constructivist outlook I hold. The constructivist research paradigm posits there is no objective approach to knowing the world, and it is this absolutism and refutation of one correct truth that characterises constructivism. This is viewed as a relativist ontological position, in that all "truths" about the world are understood as relative to the individual's or group's frame of reference or perspective at a particular point in time (Bernstein, 1983; Guba & Lincoln, 1989). This can be influenced by any number of factors including culture, socio-economic status, age, gender

etc. “The world consists of multiple individual realities influenced by context” (Mills, Bonner, & Francis, 2006, p. 23). Guba and Lincoln (1989), well known in the field of qualitative methods and self-professed constructivists, explain that, “realities are social constructions of the mind, and that there exists as many such constructions as there are individuals (although clearly many constructions will be shared)” (p. 43). Within the social constructivist theoretical framework, this construction of reality and knowledge is seen as a social process, whereby the nature of society and individuals as social beings leads to the collaborative construction of shared meanings, knowledge and often shared artefacts of knowledge (Young & Collin, 2004). Social constructivism and social constructionism are often seen as one in the same. While similar in the way these two paradigmatic stances view the role of social interaction in the construction of a shared reality, social constructivism focuses on learning or knowledge that is constructed by means of social interaction or social processes, while social constructionism focuses on artefacts that are created through an interactive collective process (Young & Collin, 2004). The origins of social constructivism can be attributed to the work of Lev Vygotsky (1978) and his belief in the important role culture and context play in how individuals view the world.

At a very macro-level, this study is situated within a constructivist paradigm, with an emphasis on social constructivism. Drawing from the work of Guba and Lincoln (1994), this study will follow the assumptions of a constructivist paradigm, which reflects, “a relativist ontology, a transactional/subjectivist epistemological stance, and hermeneutical/dialectical methodologies” (p. 109). This relativist reality is socially constructed and contextually specific, therefore subject to change over time (Schwandt, 1994). From an epistemological stance, constructivists understand that knowledge is created through an interactive process; thereby, the researcher is seen as intimately involved in the study as a primary tool of the research, as opposed to a detached observer (Merriam & Associates, 2002).

Social constructivists are most interested in the stories of lived experiences from multiple individuals rather than one singular expert knowledge in constructing a “picture” of a phenomenon. A social constructivist approach, “locates meaning in an understanding of how ideas and attitudes are developed over time within a social, community context” (Dickerson & Zimmerman, 1996, p. 80). This very social construction of meaning and knowledge is often used to refute arguments about the validity of sharing what some believe to be an individual construction. “Constructions are created not only by the individual, but by society as well. Thus, constructions are subjectively created and intersubjectively validated which reinforces the need for the inquirer to be intimately involved in the inquiry” (Plack, 2005, p. 229).

Stemming from how the social constructivist approach is used in some therapeutic interventions where patient perspectives are deconstructed in an attempt construct new, more healthy narratives, there is piece of this approach applicable to what I am seeking in my own research (Doan, 1997). Multiple individual lived experiences will be brought together, along with that of the researcher, to construct a new reality, or picture of middle level learning--not viewing it as better or worse, wrong or right, but perhaps more rich because of what each individual brought to this “construction.” Schwandt (1994) views the term “construction” as the ways in which individuals and/or groups attempt to interpret, make sense or give meaning to an experience or to the phenomenon being studied. Acknowledging the very dynamic nature of middle level learning environments and aligning with the constructivist paradigm on the nature of “truth,” the findings that will be put forth in this study, will be presented as the best informed construction of leading, teaching and learning in middle level learning environments at this particular point in time.

Combining Methodologies and Ensuring Methodological Congruence

At the outset of my research, I knew there was a twofold purpose of what I sought to contribute to the body of knowledge related to middle level learning environments. Much research pertaining to leading, teaching and learning in the middle years offers as a by-product recommendations of some sort--often, lists of elements that should be attended to. While helpful, perhaps more so in the beginning stages of transformation in middle level learning environments, or for those practitioners new to working with early adolescents, I felt the stories that are sure to exist behind those lists of recommendations would be the most powerful in conveying the lived experiences of instructional leaders, teachers and students as they work towards establishing developmentally responsive, intellectually engaging middle level learning environments. The second way I felt my research could contribute to the advancement in understanding of leading, teaching and learning in middle level learning environments was through the creation of a framework derived from the lived experiences and collective wisdom of those whose stories I sought to share. Based on the desire to share the lived experiences and collective wisdom of instructional leaders, teachers and students, while also using themes emerging from these stories to create a framework that could inform the establishment of developmentally responsive, intellectually engaging middle level learning environments, I selected a case study research design, informed by constructivist grounded theory for treatment of data. This research design would allow for the sharing of lived experiences through the richness and depth provided through the use of a collective case study format; using constructivist grounded theory to inform the analysis of data resulting from semi-structured interviews would allow for the generation of a potential framework. By combining these two methodologies, I believe my study will fill a gap I perceive to exist in the research related to middle level learning environments.

Referring back to question three in Table 2, "How can I integrate my chosen research approaches (case study design and constructivist grounded theory approaches) to ensure methodological congruence?"--I was forced to reconcile if the act of combining two methodologies would ensure methodological congruence. Through an examination of the inherent strengths and weaknesses of each methodological approach, I was able to resolve that this was in fact a sound methodological decision. Strengths of the case study approach are found in the ability to examine a, "contemporary phenomenon within its real-life context, especially when the boundaries between the phenomenon and the context are not clearly evident" (Yin, 2003, p. 13). This is certainly the case when examining leadership dimensions, instructional practices and student agency within the context of middle level learning environments. The use of a collective case study design allows for multiple perspectives to be included from a range of sources, with the addition of contextual observations (Anaf, Drummond & Sheppard, 2007; Stake 2006; Yin, 2000). The weakness of case study design is often found in the area of treatment of data. This is where the strength of constructivist grounded theory emerges as a compliment to case study design, in that it provides well-established methods for analysis of data, leading to the generation of practical theory (Charmaz, 2000, 2006; Strauss & Corbin, 1998). Further, Strauss's (1987) work on analysis techniques used in the social sciences supports the integration of case study and grounded theory methodologies if the aim of the researcher is to present possible generalisations and also work towards practical theory generation related to a particular phenomenon.

In terms of paradigmatic congruence between case study and constructivist grounded theory, both can be found to lie within either the post-positivist or constructivist paradigms. Yin (2003), a strong proponent of case study methodology, views there to be a "real" reality that can be attained (naïve realism) or probabilistically attained (critical realism) through the

use of case study methodology. Stake (1995, 2000, 2005, 2006), another strong advocate of case study methodology, approaches the methodology from a social constructivist paradigm, seeking out multiple perspectives in an attempt to better understand a phenomenon. With the emergence of the work from sociologist, Kathy Charmaz (2000, 2006), grounded theory has evolved from earlier perspectives, placing those considered to be post-positivist grounded theory purists (Glaser & Strauss, 1967) at odds with Charmaz, who has championed a constructivist view of grounded theory. Based on my own paradigmatic stance, and to ensure methodological congruence, I have chosen to approach both methodologies from a constructivist perspective, drawing on the work of Stake (1995, 2006) and Charmaz (2000, 2006), whose research acknowledges the role of the researcher and the use of multiple perspectives as important components in both case study and constructivist grounded theory methodologies.

Collective Case Study Format for Reporting Results

Drawing from the work of Stake (1995, 1998, 2006), I will employ a collective case study methodology for the purpose of this research study. Stake's social constructivist approach to case study methodology understands the role of the researcher as one that interacts in a personal manner with the case, where the case emerges because of the relationship that is established between the researcher(s) and the participants. What results is a unique portrayal of a phenomenon unlike any other that has come before, as how the researcher interacts with the participants and the context cannot be replicated (Stake, 1995). Creswell (2003) describes this approach to research in the following manner, "[exploration of] a real-life, contemporary bounded system (a case) or multiple bounded systems (cases) over time, through detailed, in-depth data collection involving multiple sources of information...and reports a case description and case themes" (p. 97). Methods of data collection are selected by the researcher, often using naturally occurring sources of data,

which according to Stake (1995) can come in the form of people, observations, interactions and pre-existing artefacts of knowledge. Context and emergent data are believed to further shape methods of data collection and analysis as the research progresses (Stake, 1995).

There exist many different forms of case studies, often categorised by case attributes, functionality or study outcome (Stake, 1995). Stake (1995, 2000), has identified two types of case studies, based on the purpose of the research. The purpose of an intrinsic case study is isolated to one particular case; there is no interest in understanding other similar cases or a phenomenon in general. The case study methodology I have selected for this research study falls within the category Stake has described as instrumental case study, where examination of a select number of cases is expected to yield insight into the phenomenon on a more broad scale. Within the instrumental case study classification, Stake further identifies the collective case study design as one that draws upon multiple sources to contribute data in the hopes of highlighting the depth, complexity and richness of a chosen phenomenon. Critics of the collective case study caution that the use of multiple cases may not adequately highlight the intricacies and unique features inherent in each, thereby representing complex phenomenon using a small number of variables (Stoecker, 1991). To overcome this potential risk to the efficacy of the study, Creswell (1998) suggests examining no more than four cases. In the instance of this research study, sites in three international locations only, Finland, Germany and Canada will be examined.

A final descriptor to add to the case study methodology of this inquiry will be that of an analytic case study. The nature of an analytic case study is important to this research as it allows for the development of a framework highlighting specific aspects of the phenomenon being studied--in this instance middle level learning environments. According to Merriam (1998), rather than a simple retelling of events, the nature of an analytic case study is such that descriptive data can be, “used to develop conceptual categories or to illustrate, support or

challenge theoretical assumptions held prior to data gathering” (p. 38). Use of case study methodology for research in education is strongly supported by Merriam (1998) as the methodology allows for depth of inquiry into complex and often unique issues. I believe the area of focus for this research (leading, teaching and learning in middle level learning environments) aligns with Merriam’s description of phenomenon that are both unique and complex.

Constructivist Grounded Theory Approach to Guide Data Analysis

In seeking a methodology that would align with my ontological and epistemological beliefs, while also allowing for the generation of a practical framework, I was immediately drawn to the work of Kathy Charmaz (2000). A sociologist, and student of Glaser and Strauss, originators of classic grounded theory, Charmaz’s (2000, 2006) beliefs about a constructivist interpretation of grounded theory highlight the interaction between the researcher and participants in the research process, bringing to the forefront the notion of researcher as author (Mills, et al., 2006). Classic grounded theory was first envisioned by Glaser and Strauss (1967) as a methodology that sought to develop theory related to one core aspect of important phenomena through data collection and analysis processes, without first having a hypothesis to either prove or disprove. Through interacting with participants and contexts using various methods, it was believed that issues of importance to both participants and the researcher would emerge. Charmaz’s (2003) constructivist grounded theory, “takes a middle ground between postmodernism and positivism, and offers accessible methods for taking qualitative research into the 21st century” (p. 250). Where Charmaz’s view of grounded theory first deviates from that of Glaser and Strauss is in the question of the existence an external objective reality that can be captured through the analysis of data (Charmaz, 2000). Inherent in a constructivist view of the world is the belief that individuals construct reality as they attempt to understand the world around them; meaning does not lie

hidden within phenomena, waiting to be discovered (Guba & Lincoln, 1989, 1994).

Therefore, according to Charmaz (2003), constructivist grounded theory, “assumes the relativism of multiple social realities, recognises the mutual creation of knowledge by the viewer and viewed, and aims toward an interpretive understanding of subjects’ meanings” (p. 250). This view aligns well with the intended design and aim of this research study.

Constructivist grounded theory encourages the researcher to give voice to study participants, in addition to seeking out and incorporating multiple perspectives into the study of a phenomenon (Charmaz, 2006). This emphasis on the relationship between researcher and participants also applies to a reciprocal approach in the treatment of data. Charmaz (2003, 2006) advocates for the co-construction of data and its analysis through the interactive process between researcher and participants. The ways in which a researcher interprets the phenomenon is in itself a co-construction, shaped by their interactions with the context and participants (Charmaz, 2006). The acknowledged influence of the interactive process between researcher and participants on the co-construction of meaning, interpretations and data arising from the research calls for the researcher to be transparent and reflective about the manner in which she carries out the research (Mills, Bonner & Francis, 2006). Reflection on the part of the researcher entails, “thinking about the conditions for what one is doing [and] investigating the way in which the theoretical, cultural and political context of individual and intellectual involvement affects interaction with whatever is being researched” (Alvesson & Sköldbberg, 2000, p. 245). Throughout the research process I have kept a reflective journal containing a series of anecdotal observations as well as analytic memos while working with the data to ensure I maintained this transparency. Returning to these reflections and anecdotes proved to be both insightful and helpful during the data analysis process.

The belief in the existence of multiple social realities allows for the theoretical framework or product of a constructivist grounded theory approach to the treatment of data to provide practical insight into a phenomenon coupled with breadth and depth of understanding. In research using constructivist grounded theory, Charmaz (1995, 2000) advocates that researchers work with the data in ways that honour the unique narratives of the participants in the final product. A style of writing that is more narrative than scientific and is reflective of the voices and experiences of the participants themselves is encouraged by Charmaz (2000). This type of writing is more suited to what I consider to be a strength in my own writing, as well as to what I hope to contribute to the body of knowledge related to early adolescent learners and middle level learning environments. Again, a constructivist grounded theory approach to working with the data I have collected is most relevant to the intended outcome of my research, which is a better understanding of the factors that contribute to the establishment of developmentally responsive, intellectually engaging middle level learning environments, through the examination of the lived experiences of instructional leaders, teachers and students.

Role of the Researcher

It is important that my role as the researcher in this study be made clear and examined in order to understand how this may have influenced interactions with participants and subsequent analysis of data. My professional experience working with early adolescents in middle level learning environments in the capacities of instructional leader, teacher and system specialist, as well as my role as a parent of an early adolescent learner has provided me with both a professional and a personal lens from which to approach this research. Based on my own professional and personal experiences, along with my own curiosities and passions, I have identified the following specific lenses I have brought to this research study:

1. A thorough understanding of the current state of early adolescent learning and middle level learning environments in Canada and in select countries around the world.
2. An appreciation for the multifaceted nature of early adolescent learning and development and the complexity involved in the work of those who teach early adolescent learners.
3. A critical perspective about the role of appropriate pre-service and in-service teacher professional learning related to early adolescent learners.
4. The desire, for both professional and personal reasons, to further highlight the need for an intentional examination of the factors that contribute to the establishment of developmentally responsive, intellectually engaging middle level learning environments, along with the need to better understand essential implementation processes behind middle level transformation.

A key tenet of constructivism and constructivist grounded theory is the researcher being viewed as bringing credibility to the study; this is achieved through the researcher establishing familiarity with the context in which the research is taking place, as well as being able to demonstrate an exceptional understanding of the phenomenon being studied (Charmaz, 2000, 2006; Lincoln & Guba, 1985). Familiarity with the context where the research is being conducted was termed by Lincoln and Guba (1985) as prolonged engagement, whereby the researcher invests the necessary time in a setting to establish the familiarity needed to be viewed as credible and trustworthy by participants, and also develops a strong sense of the inherent culture of the context to be able to accurately portray the subtleties and intricacies in the findings. This time of engagement in a research context must be considered carefully by the researcher, as Lincoln and Guba (1985) also warn of

something they describe as “going native,” where researchers spend too much time in a research context, thereby bringing into question their interpretation and analysis of the data. The nature of constructivist research, however, acknowledges the interaction of the researcher with the context and participants in such that it promotes the co-construction of meaning, understanding and data.

The importance of researcher credibility cannot be underestimated, as the researcher, in many forms of qualitative inquiry, is viewed as the primary instrument for data collection and analysis. Stainback and Stainback (1988) discuss the importance of developing a strong rapport with research participants, thereby facilitating the potential for richness in participant responses and consequently greater depth of understanding of the phenomenon by the researcher. In my role as researcher, I visited each of the research sites on two separate occasions. The first occasion served as an opportunity to meet the school principal, discuss the nature of my research and clarify what I was asking of the school and potential study participants. I presented myself as a colleague who was interested in early adolescent learners and middle level learning environments. I was clear that I was not approaching this research from a place of judgement; I was eager to learn from them and perhaps had some insight from my own professional experience that may benefit their school context. During this first visit, I was able to collect documents and artefacts from the school principals that would become part of the data story for this study. I also had the opportunity to make reflective observations about the school context after I had left that later informed the case descriptions. The second visit to the school was an opportunity for me to meet with the participants and conduct the semi-structured interviews. I transcribed all interviews arising from this second meeting on my own, allowing for additional opportunities to reflect on the interactions I had with participants. This transcription process served as the first opportunity to interact with the data and begin the initial stages of open coding.

During the early stages of data analysis I sought out peers experienced in working with qualitative data along with my program supervisor to provide an important “fresh set of eyes” and serve as “critical friends” in reviewing interview transcripts and initial steps in the open coding process to ensure I was asking the right questions of the data and using the appropriate analytic lenses from which to view the data. As they asked for clarification of what I had provided them and posed additional questions for consideration, I was able to further refine and deepen my data analysis processes and consider alternative explanations for patterns in the data. Triangulation of my perceptions and interpretations of the data was an essential step in my ability to clearly articulate key aspects of my research design along with the manner in which I was working with the data.

Criteria for Quality of the Study

It is the role of the researcher to prove the value of the study and the rigour with which the research was undertaken and carried out. Within the social constructivist paradigm, the researcher attempts to reconstruct, through processes of co-construction, participants’ experiences of a chosen phenomenon. Therefore, the nature of qualitative social constructivist research, necessitate alternate criteria be used to establish the value, rigour, quality and trustworthiness of the study (Guba & Lincoln, 1994; Lincoln, 1995). More traditional measures of external and internal validity, often used with quantitative research, do not apply in the same way to forms of research that fall within the constructivist paradigm. The suitability of criteria and specific terminology to be used when determining the trustworthiness of constructivist research is often a topic of debate (Denzin & Lincoln, 2000; Merriam & Associates, 2002). Schwandt (1994), for example believes the most important criteria for judging the quality of constructivist research is the quality of “functional fit,” while other constructivists put forth criteria such as thoroughness, comprehensiveness, aesthetic knowledge, referential adequacy, etc. (Guba & Lincoln, 1994; Murphy, Dingwall,

Greatbatch, Parker, & Watson, 1998; Schwandt, 1994). For the purpose of this study, the quality and trustworthiness of the research will be judged using the criteria proposed by Guba and Lincoln (1994) and Robson (1993) of credibility, transferability, dependability, confirmability and authenticity.

Credibility. “Credibility deals with the truth-value” (Plack, 2005, p. 231) with which the research was conducted. I employed a variety of strategies to ensure credibility of the study. A variety of data collection methods were used at each site including interviews, direct and participant observation and document review. Additionally, multiple perspectives were considered within the study, including the voices of instructional leaders, lead teachers and students. The use of multiple perspectives contributes not only to the credibility of the study, but also promotes dependability and confirmability (Lauckner et al., 2012).

Maintaining a high level of transparency during the research process is an important factor in the perceived credibility of the study. As described in the section related to my role as the researcher, I maintained a reflective journal throughout the research process. As outlined in Charmaz’s (2000, 2006) constructivist grounded theory, using techniques such as analytic memos and anecdotes related to emerging interpretations of the data contributed to the transparency of the data analysis process and therefore the credibility of the study. Finally, I undertook the necessary steps in each country to obtain the proper consent needed to interview instructional leaders, lead teachers and students. The procedures of informed consent differed slightly in each country and sometimes within a given country.

Transferability. Transferability refers to the extent to which study findings can be transferred from one context to another (Murphy et al., 1998). The use of thick descriptions as put forward by Creswell (1994) is one of the primary tools to ensure transferability and serves the purpose of providing the audience with rich descriptions and detailed information, allowing them to feel as though they have had the experience themselves. With the inclusion

of thick descriptions the reader can then determine for themselves the level of transferability of the data presented. I believe the cases I have presented contain the type of thick descriptions as envisioned by Creswell (1994). Additionally, the diverse site locations and contexts utilised, the wide variations in the participants included and the incorporation of multiple perspectives in my research have served to contribute to and elevate the level of transferability of this study.

Dependability. With the criteria of dependability the emphasis rests on the processes involved in the research; what measures were put in place to ensure the data obtained is dependable? Here, the use of Creswell's (1994) thick descriptions ensure that the reader can easily follow the processes engaged in by the researcher to collect, manage and analyse data. Through the use of thick descriptions the reader should be able to, "follow the [researcher's] process to determine if it was clear, systematic, well documented, and provided safeguards against bias" (Plack, 2005, p. 232). To ensure dependability, I used techniques such as triangulation, where experienced peers reviewed initial stages in my analysis of the data, posed questions of me regarding data collection and initial coding work, and asked me to reflect on potential alternate explanations for patterns emerging from the data. The use of multiple perspectives from multiple contexts increased the dependability of findings presented in the individual cases, the cross-case analysis and finally the proposed framework.

Confirmability. In constructivist research, the criteria of confirmability stems from the question of whether conclusions put forth are logical reflections of the data. "The information obtained must be confirmable" (Plack, 2005, p. 232). Member checking is a strategy whereby interview transcripts were provided to participants, allowing them to make additional comments or edits, ensuring the data used accurately reflects their experiences and points of view. Using case study protocol as outlined by Stake (1995), detailing all aspects of the research process (reflective journaling, memo writing, etc.) and creating a method for

managing and storing data contributed to the creation of an audit trail and thus support the confirmability of the research. An overview of the protocol I created for the purpose of this research is included as an appendix (see Appendix I). All documents used for the purpose of this research study have been saved and stored and are available to anyone who should ask to see them.

Authenticity. Various descriptors have been put forward to determine the authenticity of a research study. Guba and Lincoln (1994) and Schwandt (1994) describe the following forms of authenticity: fairness, were multiple and varying participant voices sought out and represented; ontological authenticity, has the researcher's understanding of the phenomenon been advanced because of the inquiry; educative authenticity, have others' understandings of the phenomenon been enhanced or augmented because of the study; catalytic authenticity, have the study's findings have prompted action or at least consideration by others in the field; and, tactical authenticity, has participation in the study empowered participants, giving them momentum to act on new constructions of knowledge (Guba & Lincoln, 1994; Schwandt, 1994).

Reflecting on each descriptor identified by Guba and Lincoln (1994) and Schwandt (1994), I believe the study upheld the characteristics of an authentic study. Participants in this study came from a range of cultural backgrounds, experiences, demographics and ages. Voices of all participants are represented in the study; the beliefs and lived experiences of all participants were included in varying degrees in the case descriptions. In terms of ontological and educational authenticity, follow up correspondence from study participants showed them to be grateful for the opportunity to participate in the study and reflect on and share their beliefs and experiences. Those in the education profession are by nature, I believe, idealists, wanting to change the world--one lesson, and one student at a time. The sharing of research findings, I believe had an impact on all participants, for many it was a

much needed affirmation of current beliefs and practices, and for others, it provided them a sense of direction for logical next steps. This falls into the category of tactical authenticity. The last two descriptors, ontological authenticity and catalytic authenticity are perhaps more difficult to quantify. I know my involvement in this study has had a profound effect on the way I view early adolescent learners and middle level learning environments. Some beliefs I held previously have undergone a significant and needed reshaping, while others were strengthened through what I discovered in the process of my research. Perhaps more tangible will be the impact this research has on my instructional leadership and how I will work in my own professional practice to establish developmentally responsive, intellectually engaging middle level learning environments. Does this study demonstrate catalytic authenticity? I certainly hope so. I do truly believe what I have put forward has the potential to cause enough of a disruption in traditional ways of thinking and doing in middle level learning environments to significantly impact early adolescents' experience with schooling.

Interpretive and methodological rigour. Another strategy to evaluate the quality of this research comes from the work of Fossey, Harvey, McDermott and Davidson (2002), and uses the criteria of methodological rigour and interpretive rigour. I believe this is to be worthy of mention because when combining case study and constructivist grounded theory methodologies, as I did in this study, there is perhaps an additional lens from which to determine the contribution of the study. Methodological rigour considers whether the research was conducted with good methodological practice (Fossey et al., 2002). Interpretive rigour encompasses the data analysis process and questions if the interpretations the researcher made were sound and reflective of the data. The following questions adapted from the work of Stake (1995), Fossey et al. (2002) and Charmaz (2006) provide a solid foundation from which to determine the methodological and interpretive rigour of this research study.

Relating to methodological rigor:

- Has the case been adequately defined?
- Have contextual factors been adequately described and considered?
- Have quotations and descriptions been adequately used to provide various experiences for the reader?
- Was an adequate number of and variety of data sources used?
- Was the role of the researcher and his/her perspective clearly outlined?

(adapted from Stake, 1995, p. 131)

- Are the chosen design, and data collection and analysis methods congruent with the philosophical or paradigmatic stance of the research?
- Was the research design flexible in adapting to real-life situations within the social settings it was conducted?
- Was the researcher detailed and transparent in describing the data collection and analysis process? (adapted from Fossey et al., 2002, p. 724)

Relating to interpretive rigour:

- Are sufficient data presented to support the researcher's claims?
- Do presented categories cover a wide range of empirical observations?
- Do the researcher's proposed categories offer new insights and a new conceptual rendering of the data?
- Has the researcher addressed taken-for-granted meanings?

- Have links been made between the larger institution of context and individual lives?
- Does the proposed theoretical framework make sense to participants or those in a similar situation, offering deeper insights about the phenomenon?
- Is the researcher's interpretation relevant to people's everyday lives?

(adapted from Charmaz, 2006, p. 19)

Study Participants

The intended outcome of a research study is an important factor when considering the many strategies available for participant sampling. When I describe the considerations for participant sampling in this section, it applies to both site selection as well as participant selection. The work of Patton (1990, 2002) is frequently referred to when participant sampling in qualitative research is discussed. Patton has put forth 16 strategies to support purposeful sampling in qualitative research, each serving a different purpose and reflecting the intended outcome of a study.

The logic and power of purposeful sampling lie in selecting *information-rich* cases for study in depth. Information-rich cases are those from which one can learn a great deal about issues of central importance to the purpose of the inquiry, thus the term *purposeful* sampling. Studying information-rich cases yields insights and in-depth understanding rather than empirical generalizations. (Patton, 2002, p. 230, emphasis in original)

I believe there are ultimately multiple intended outcomes when one engages in research, outside of the larger impact on the particular field of study. The personal journey of the researcher towards greater understanding of a phenomenon that likely impacts them on a

professional level too, is one such outcome. A significant outcome also not to be undervalued is the impact on the participants themselves as they engage in the very personal nature of sharing their beliefs and lived experiences (Clandinin & Connelly, 2000). It is with this awareness that I chose the strategy of intensity sampling with close consideration of maximum variation sampling for both site and participant selection (Patton, 1990, 2002).

Site and participant sampling. Using Patton's (1990) strategies of intensity sampling--"selecting information-rich cases that manifest the phenomenon intensely, but not extremely" (p. 182) and maximum variation sampling--"selecting cases that are considerably different on the dimensions of interest" (p. 182), my supervisor in Germany and her colleagues in Finland assisted me in choosing site locations that would align with the criteria of these two sampling strategies. As the researcher, I was more interested in a select number of sites and participants that would contribute richness and uniqueness to the study and create opportunities for me to learn, than on a large sample size. Patton (1990) acknowledged this in his work when he wrote, "The validity, meaningfulness, and insights generated from qualitative inquiry have more to do with the information-richness of the cases selected and the observation/analytic capabilities of the researcher than with the sample size" (p. 185).

In discussions related to criteria for school site selection with my supervisor, I wanted to be open to a wide variety of school contexts. Consistent with constructivist grounded theory, I did not have a pre-conceived hypothesis I was looking for evidence to support or refute; I did have key areas of focus related to the experiences of instructional leaders, lead teachers and early adolescents within middle level learning environments that I was interested in exploring further. Essentially, any school site that had early adolescent learners and whose principal was supportive of opening his/her school to me fit my criteria. This same openness applied to the selection of individual study participants as well. In discussions with the school principal, I asked for a wide range of teachers and students. The

only criteria was that they be willing to openly and honestly share their beliefs, opinions and lived experiences with me; they did not have to be the “award winning” teacher or the “top of the class student,” while these factors would not have excluded anyone either. [I believed then and still do now, that sometimes the best lessons learned come from some of the most unsuspecting places and people.]

Process of Site Selection and Site Entry

German school sites. The tiered system of secondary schools in Germany presented a thought-provoking offering of schools, viewed by most as being philosophically distinct, accommodating certain types of students only in order to prepare them for very different career and life paths. In Germany, I conducted my research in four very different schools, from the Land of Baden-Württemberg, chosen with the criteria of both intensity and maximum variation sampling in mind. These schools were neither extreme cases nor could they be viewed as ordinary. Two schools carried the title of traditional German Gymnasium, geared towards the upper tier of students on the path to post-secondary education and on to professional careers. The third school was a newer form of German school, a Gesamtschule, introduced in 1969, accommodating students of the Hauptschule, the Realschule and the Gymnasium in one building, albeit in homogenous classes with students of similar ability. The Gesamtschule was designed to be more flexible, supporting students as they transition into a program most appropriate for their abilities. The fourth school was a Gemeinschaftsschule, introduced as a pilot concept in 2008-2009 and conceived to be a community school--keeping all students together in mixed ability classrooms. Based on the professional experience of my supervising professor, it was determined these four schools would not only provided the breadth of experience found in the German education system, but would also contribute to the in-depth and rich lived experiences sought for this study.

Finnish school sites. Recently much has been publicised about the benefits of the Finnish school system. For both personal and professional reasons, I was very interested having the opportunity to interact with, learn from and even share my own professional experiences with instructional leaders and teachers in Finland. My supervising university in Heidelberg has a partnership with the University of Jyväskylä in Finland, and because of this, I had the good fortune of being able to conduct my research at four schools in Finland. Two professors from the University of Jyväskylä's Faculty of Education assisted me in selecting school sites they felt reflected the characteristics of intensity and maximum variation sampling. Three schools sites used for the purpose of this research were from the region of Central Finland. While the grade configuration of each school varied slightly, early adolescent students attended all three schools and consequently there were teachers who had experience working with early adolescent learners. One school was considered to be an international school, as instruction of the core curriculum was offered in either Finnish or English and also bilingually. There were course offerings of many other languages, such as Spanish, Russian, German and Italian, as many students aspire to attend the International Baccalaureate program in upper secondary school. This type of school attracts students and their families who have come from abroad to live and work either temporarily or permanently in Finland as well as native Finnish families where English is spoken at home. The fourth Finnish school was considered an international lower secondary school from the region of Uusimaa. In the case of this international school, students had to go through an application process in order to attend the school. As with the international school in Central Finland, many students had at one time, lived and studied abroad or were foreign students living with their families in the Uusimaa region. Students had the choice to study in Finnish, English or bilingually in a more culturally diverse setting.

Canadian school sites. Four Canadian middle schools were used as research sites. Two middle schools were located in the province of Manitoba. In 2010, the department of education in Manitoba issued a very important position paper related to early adolescent learners and middle level learning environments that is used as an overarching lens and filter for the purpose of this research study. I was curious to see in a very practical sense how middle level learning environments in this province were impacted by the direction and supports provided by the department of education. The third and fourth research sites were middle schools by way of configuration in the province of Alberta. In Alberta, there is no consistency among the 61 district school boards with regards to the how early adolescent learners and middle level learning environments are supported. While high school completion and the early learning years have been a priority for many years at the provincial level, there has not been the same intentionality directed towards early adolescent learners. I felt it important to better understand the lived experiences, outside of my own, of instructional leaders, lead teachers and students in middle level learning environments in my home province of Alberta.

Site entry. With minor unforeseen and unavoidable circumstances, I attempted to employ the same site entry procedures with each school. In Germany and Finland, my supervising professor and her university professor counterparts in Finland, made the initial contact with the school principal of each identified site. Once this contact had been made, I contacted the school principal via email to introduce myself and provide them with a summary of my research (see Appendix G). With some principals, a professional email conversation ensued; for the most part, it involved clarifying questions and attempting to determine a date for my initial visit that would best suit the school. With the German and Finnish school sites, I made my first visit to the school accompanied by my supervising professor or her colleagues. During this first face-to-face meeting I was able to make a very

important personal connection with the principal, establish collegial credibility and further clarify any questions that may have arisen since the time I had first contacted them via email. Patton (2002) advocates for establishing a reciprocity model of gaining access to a research site, whereby both parties understand the potential for mutual benefit through the research process. Through this initial conversation with school principals, I shared my professional background and spoke of the resources I use and have also created that shape the way the instructional environment at my own school has been set up. I indicated I was happy to share any resources that might be of interest to them; and, I was also willing to share findings arising from my research, without of course, identifying the voices of participants from their specific school. All principals expressed interest in seeing the final results of my research once completed. At this time, we determined an appropriate date for a return visit to the school site to conduct participant interviews, as well as discussed the type of participants appropriate for the study. Again, it was made clear that the criteria for participant selection were very open; beyond that, I trusted the principal with selection of participants and was pleased in every instance with the decisions they had made. It was also during this first meeting I was able to tour the school and was provided by many principals with additional documents and resources pertaining to the school, which then became part of the data for the study.

Process of Data Generation

The overarching question to guide this research was generated through an iterative process arising from my own curiosities, professional experiences and what Elmore (2010) terms “problems of practice.” Referring back to the methodological questions outlined in Table 2, the simple question of “What do I want to better understand?” (Lauckner et al., 2012, p. 2) served me well in narrowing my research focus and in understanding how to best frame the overarching research question and subsequent interview questions to ensure the

data I gathered would inform this central focus. My 13 years of experience working with early adolescents and in middle level learning environments highlighted the need to better understand the factors that contribute to the establishment of developmentally responsive, intellectually engaging middle level learning environments. I have articulated the overarching question for my research in the following manner, “What factors contribute to the establishment of developmentally responsive, intellectually engaging middle level learning environments for early adolescents?”

Both Yin (2003) and Stake (1995, 2006) identify the need to establish a theoretical framework to support and focus data collection in case study research. Referring back to the methodological questions listed in Table 2, question five, served to further guide and bring the necessary focus to data collection--“Considering all the information I could gather about these cases, how can I theoretically structure data collection to best answer the research question(s)?” (Laucker et al., 2012). Stake (1995) advocates for delineating main “issues” in each case that reflect the context and complexity of the phenomenon being studied. What Stake (1995) terms issues, Charmaz (2006) views as “points of departure” that serve to frame interview questions and form preliminary categories in the coding process. In considering these main issues or points of departure, I again drew on my professional experiences that have given me insight into the significant roles instructional leadership, teacher instructional practices and student agency play in how the unique learning needs of early adolescents are attended to in middle level learning environments. With this in mind, I created three sub-questions that would frame the interview process with the three participant groups I have chosen for the purpose of this study--instructional leaders, lead teachers and students.

1. What leadership dimensions contribute to the creation of a developmentally responsive, intellectually engaging learning environment for early adolescents?

2. What instructional practices do teachers draw upon that contribute to the creation of a developmentally responsive, intellectually engaging learning environment for early adolescents?
3. How do early adolescents articulate their needs in ways that contribute to the creation of a developmentally responsive, intellectually engaging learning environment?

An overview of the aim of the research was developed and presented to the principal in each research site prior to entering the school (see Appendix G). Interview guides, or what Yin (2003) terms “data collection protocols” were created prior to entering the research sites, based on the overarching research question and sub-questions identified to focus the gathering of data (see Appendix H). These guides or protocols were used in a flexible manner, permitting me to use follow up questions to pursue topics of interest stemming from participant responses. Some participants asked to see these interview guides prior to meeting with me for the second time. This was the case in two international sites, where participants were non-native English speakers and wanted to be able to reflect on the questions ahead of time to ensure that language did not become a barrier. It is important to note the interviews were designed to be semi-structured. Although I had outlined some guiding questions for each participant group specific to their context, the list of questions was not exhaustive, allowing for the unique variations in participants’ experiences and perspectives to emerge through conversation. In addition to semi-structured interviews, and consistent with case study design, additional data collection methods used for the purpose of this study were both direct and participant observation and document review (Stake 1995; Yin, 2003). Data collection took place onsite in school locations in Germany, Finland and Canada between July 2014 and December 2014. Table 4 provides a summary of the nature of the data I

collected in Finland, Germany and Canada, along with the amount of time I spent in each location.

Interviews. For the purpose of this study, I used semi-structured interviews as the primary form of data collection. Consistent with case study design described by Yin (2003) and Stake (1995), interviews are an effective way of capturing and portraying participant perspectives of unique and complex phenomenon in natural settings. For the instructional leader and lead teacher categories, I used an individual semi-structured interview format. When working with students in small focus group of two to eight students, I again used a semi-structured interview format. As previously mentioned, I created interview guides for each participant group, specific to the context of the group and to issues or points of departure I had identified (Charmaz, 2006; Stake, 1995). This format and structure ensured I remained focused on lines of inquiry essential to my central research question, while also allowing for participants' unique perspectives and experiences to be reflected in the data (see Appendix H).

Interviews were recorded using an iPad application designed for such purposes. I transcribed all of the interviews personally by listening to the audio recording and word-processing my questions verbatim and subsequent participant responses verbatim. Electronic files of the transcripts were archived to maintain the audit trail necessary for confirmability of the study. Completed transcripts were returned to participants to allow them to clarify, edit, add, delete or further comment on anything detailed in the original transcript. All participants acknowledged receiving and reviewing the transcripts. Some participants made corrections or adjustments to the original transcript on a scale from very detailed to more general feedback.

Small focus group interviews were used with students, as it had been my professional experience that early adolescents often feel more comfortable disclosing information in what they perceive to be a less formal, group setting. As I wanted to ensure each student in the focus group had an opportunity to express their opinions, I asked for principals and teachers to select a representative sample of students; a group no larger than eight, ages 10-15, boys and girls, high achieving students and those who face challenges as students, from various socioeconomic groups. An interview guide was also used to focus my line of questioning, while allowing for the many digressions in conversation that are bound to occur when discussing almost anything with early adolescents. These interviews were also recorded using an iPad and transcribed in the same way interviews with instructional leaders and lead teachers had been. As no information is presented in the study that would identify school research sites or research participants, school principals and parents of students I interviewed trusted that I would not identify student names in my study and also entrusted me with accurately representing what the students had shared with me during study interviews.

It should be noted that prior to my first “official” interview for the purpose of this research, I had the opportunity to field test my interview questions with students and colleagues in the school system I work for. This gave the opportunity to refine my line of questioning and understand the importance of being more precise with the language I used in follow-up questions.

Interviews conducted with individual participants, or small focus groups of students lasted from 45 minutes to 60 minutes. At the end of my data collection process, I had conducted over 30 hours of interviews and transcribed in excess of 400 pages of conversation. Table 3 presents a summary of the nature and background of participants I interviewed for the purpose of this study, based on a strategy of intensity and maximum variation sampling.

Table 3

Interview Participants from Research Sites (illustrating intensity and maximum variation sampling)

German Research Site Participants

Individual Semi-structured Interviews

- Principal – Male. Long-time teacher and 5th year principal of a Gemeinschaftsschule in Baden-Württemberg.
- Vice Principal – Male. Has worked at this school, a Gesamtschule in Baden-Württemberg, in various capacities for 30 years.
- Vice Principal – Male. Over 25 years experience at the same Gesamtschule in Baden-Württemberg. Teaches chemistry to class 9 students. Retiring this year.
- Lead Classroom Teacher – Male. Currently teaching grade 8 history, German and social studies in a Gymnasium in Baden-Württemberg. Connecting teacher between student representatives and the teaching staff.
- Lead Classroom Teacher – Female. Employs Montessori methods with class 5 and 6 students. Current class teacher for grade 7 students. Has been with the same students for three years.
- Classroom Teacher – Female. Fourth year teacher in a Gemeinschaftsschule in Baden-Württemberg. Class teacher for grade 6 students.
- Classroom Teacher – Female. Class teacher for form 7 students. Has been with the same students for three years. Teaches German and English.
- School Social Worker – Female. Works with all students in the school as a class at the request of the teacher or by individual student request in a Gymnasium in Baden-Württemberg.

Student Focus Group Interviews (participants selected by principal and teachers)

- Student focus group – Baden-Württemberg Gemeinschaftsschule. Two male students with strong English language skills. Both in grade 6.
- Student focus group – Baden-Württemberg Gesamtschule. Six students (three male, three female) in grade 7.
- Student focus group – Baden-Württemberg Gymnasium. Thirteen students (eight male, five female) in grade 7.
- Student focus group – Baden-Württemberg Gymnasium. Four students (three male, one female)--two students in grade 6, two students in grade 7.

(table continues)

 Finnish Research Site Participants

Individual Semi-structured Interviews

- Principal – Female. Central Finland lower secondary school. Has been the principal for five years. Also lectures at the university.
- Principal – Male. Central Finland secondary school. Former guidance counsellor at the school. Has been the principal for two years. Also lectures at the university.
- Principal – Male. Central Finland lower secondary school (international). Has been at this school for 25 years. Also teaches history.
- Vice Principal – Female. Central Finland secondary school. Background in physiotherapy. Works with all teachers in the school in a co-teaching capacity.
- Vice Principal – Female. Central Finland lower secondary school (international). Has been at the school for 18 years. In charge of student well-being.
- Vice Principal – Male. Uusimaa secondary school (international). Has been at the school for 22 years. Currently teaches math along with his other duties.
- Teacher/Guidance Counsellor – Female. Central Finland secondary school. Health, Physical Education and “Learning to Learn” teacher as well as lower secondary student guidance counsellor.
- Teacher – Male. Central Finland lower secondary school. Second year at this school. Class 6 teacher.
- Teacher – Male. Central Finland lower secondary school (international). English and German teacher. Exploring the use of technology in his classroom to engage students.
- Teacher – Female. Uusimaa secondary school (international). Has been at the school for 16 years. Currently teaches math to grade 8 students. Also in charge of the international program.

Student Focus Group Interviews (participants selected by principal and teachers)

- Student focus group – Central Finland secondary school. Eight students (four female, four male) in grade 7.
- Student focus group – Central Finland lower secondary school. Six students (three female, three male) in grade 6.
- Student focus group – Central Finland lower secondary school (international). Eight students (five female, three male)--four in grade 7 and four in grade 8.
- Student focus group – Uusimaa secondary school (international). Eight students (three female, five male) in grade 8.

(table continues)

Canadian Research Site Participants

Individual Semi-structured Interviews

- Department Specialist – Female. Current department of education specialist. 20 years experience as a teacher and principal in Manitoba middle schools.
- Principal – Male. 27 years of experience as a teacher, assistant principal and principal in urban Manitoba middle schools.
- Principal – Male. 25 years of experience as a teacher and principal, in both Canadian and international contexts.
- Assistant Principal – Female. 15 years of experience as a teacher and assistant principal in four middle schools.
- Assistant Principal – Male. 12 years of experience as a teacher and assistant principal in two middle schools.
- Teacher – Male. Seven years of experience working with early adolescents. Has worked in three middle schools. Currently teaches math and science to grade 8 students.
- Teacher – Male. 10 years of experience working with early adolescents. Has worked in two middle schools. Currently teaches humanities to grade 6 students.
- Teacher – Female. 20 years of experience as a middle school humanities teacher working in a rural Alberta setting.
- Teacher – Female. Second year teacher in a middle school. Strong background in science. Explores ways to effectively use technology with students.

Student Focus Group Interview (participants selected by principal and teachers)

- Student focus group – Urban Alberta middle school. Six students (three female, three male) in grade 6.
- Student focus group – Rural Alberta middle school. Six students (four female, two males) in grade 7. Three students are part of the French Immersion Program at the school.
- Student focus group – Urban Manitoba middle school. Six students (three female, three male) in grade 6.
- Student focus group – Urban Manitoba middle school. Six students (three female, three male) in grade 7. All part of the French Immersion Program at the school.

Observations. I used both direct and participant observation as a method for data collection in this study. Direct observations took place during my initial site visit as I attempted to familiarise myself with the site and develop a sense of the school context and

culture. Participant observations occurred during the process of on-site interviewing. In some cases, I was able to make notes during the interview process, but often had to reflect on what I had observed about the participants after the interview, to ensure I did not disrupt the flow of conversation. I developed a general and flexible observation guide to maintain consistency among site locations and also ensure key areas were attended to (see Appendix J). This was not in checklist form, but rather categories in which to make anecdotal comments and reflections. Along with the semi-structured interviews and document review, these observations formed a primary source of data, which informed the development of the framework.

Document review. For the purpose of this study, I analysed both print and electronic documents relevant to each school site. Some of this document review occurred prior to arriving onsite, to familiarise myself with the school context and school philosophy in order to inform my subsequent line of questioning. Much of this review came in the form of reviewing school and district websites. I made anecdotal notes during this review of electronic sources of my initial impressions and of things I was curious about and wanted to explore further during the interviews. In all cases, school principals provided me with documents they felt were relevant to the context of their school and my research, and also represented their school well. These additional documents were reviewed after the onsite interviews and observations. Again, I made notes and reflections about these documents and in some cases, followed up with the principal to seek clarification related to questions I had. These site-specific documents were often referred back to during data analysis as I sought to obtain specific information and wording as well as clarify my interpretation of specific contextual issues.

Table 4

Summary of Data Collected from International Research Sites

	Germany	Finland	Canada
Days on site	8 days	8 days	8 days
Number of participants	33	40	33
Number of interviews	13	12	12
Total time on site	16 hours	16 hours	20 hours
Documents reviewed	18	20	18

The Research Context

Entering into the research context. As outlined in the “Role of the Researcher” section, I did not enter into this research or the research context from a place of neutrality. I have many years of professional and personal experience with early adolescent learners and middle level learning environments. Very early in my career I developed a true curiosity, and as I will further explain, a necessity for better understanding what makes early adolescents “tick.” My pre-service teacher training focused primarily on the world of Canadian high school education and high school students, or late adolescents. Perhaps foretelling of my future pursuits, my first teaching job was in a middle school grade 8 classroom. These students behaved and engaged with their learning in none of the ways I had been trained to expect, and in many cases, support. Within those first few weeks, I knew that if I wanted to survive my first year as a teacher [and if I were being honest, also wanted my early adolescent students to survive their first year with me] I needed to set out on my own to understand all I could about these students I faced every day. I read voraciously, sought out

professional learning opportunities, anything I could find about early adolescents as developing beings and as learners. I learned about their brain development and their physical development and why some of the behaviours that used to make me crazy, were in fact very typical, to be expected, and even necessary in healthy adolescent development. I came to understand that in terms of psychological and cognitive development, my one classroom of 32 students was so very diverse that the only way to meet their needs was to know every single one of them as individuals and learners and also help each student come to know themselves in the same way; together we could use this knowledge to support their healthy growth and development. My students and I became partners in our classroom. There was no “one-size fits all” model in my classroom, perhaps nowhere more true than in a grade 8 classroom; and, once we had figured this out, there was nothing holding these students back. I look back on those early years in a middle level classroom and am very proud of the growth as learners and as individuals my students were able to achieve. When people used to offer their condolences as I would talk about my experiences as a middle years teacher, I understood just how damaging were all those myths related to the inability of early adolescents to engage in anything meaningful, especially learning, outside of causing disruptions in the neighbourhood. It was here my desire to undertake research related to early adolescent learners and middle level learning environments began.

In my role as a system specialist for middle years teaching and learning, I had the opportunity to work in some capacity with all middle level learning environments in my large school district--50 different schools. I became very aware of the lack of consistency in practice and clear articulation about what “we” as a system believed about early adolescent learning and middle level learning environments. This concerned me greatly, perhaps more so as I had a son entering middle school. In my next role as an assistant principal in a middle school, I had the opportunity to create what I envisioned to be a developmentally responsive,

intellectually engaging learning environment for early adolescents. I do not intend to portray my school as a utopia for early adolescent learners; the school, as most things are, was a work in progress. It was during my work as an instructional leader in this school I knew that I needed to further understand early adolescent learners and middle level learning environments on a scale much larger than my own experiences. I believe my understanding of leading, teaching and learning in middle level learning environments, coupled with all that I was sure to learn through my research, would contribute to the larger body of knowledge in this field and would positively impact the practical day to day work in middle level learning environments around the world. [I accept the title of dreamer and idealist, gladly.]

I was honest with all principals I met about my background and intentions; essentially what I have just explained, I shared with them. I believe this type of honesty can sometimes be disarming and served to establish me as not only credible, but also trustworthy. They saw me as a colleague, understanding in many ways the complexity of their work and wanting the same things they did--an understanding of how to create the best possible learning environment for their early adolescent learners. While I was careful not to use what I would consider Canadian educational jargon, I found that in many instances, those working with early adolescents in middle level learning environments speak the same universal language. Although I had created a case study research protocol (see Appendix I) and various other data collection guides (see Appendix J), mostly for the purpose of making clear for myself the research process and ensuring I was cognizant at all times of what I was looking for, I understood the importance of using these in a flexible manner, so as to not miss out on opportunities that may arise to add richness to the study. Being too rigid, when working with principals who have opened up their schools, staff and students to you and put themselves in a position of vulnerability, can be off-putting. There were also cultural subtleties in each country that I was aware of and ensured I was respectful of.

Maintaining the research focus. All interviews took place at the respective school sites; this ensured that participants were in a familiar and comfortable setting. In all cases, principals had arranged for food to be brought in to share with participants during the interviews; my experience with early adolescents and middle years teachers has shown that food is good strategy for showing your appreciation and also getting a conversation started. Principal interviews were conducted first in all schools. I believe this served to set their minds at ease with regards to the interview process, the interview questions and what their teachers and students would experience during their time with me. Principals then entrusted me to meet with their teachers and students alone, although in some German and Finnish sites, my supervising professor stayed with me to act as a translator if participants requested it. This lessened the anxiety some participants had in feeling unsure about their English language proficiency, although I found all participants to possess very good English language skills. My professor provided verbatim translations of what participants said; most often clarifying specific words or terms that participants could not quickly find an English equivalent for.

I began each interview with principals, teachers and students in the same way, asking participants to tell me a little bit about themselves, their experiences and/or roles within the school and why they felt their school was a great place to teach in/learn in. When interviewing teachers and students, whom I had not yet had the opportunity to meet, I told them about myself, my experiences and why I was interested in better understanding the topic of leading, teaching and learning in middle level learning environments before I began to ask them any questions. I did not begin interviews with principals in this way as it was my second meeting with them and already had this type of candid conversation with them during our first meeting. Beginning interviews with a more informal tone was a strategy I used to get the flow of the conversation going without participants feeling their answers were being

judged in any way. I felt in all instances that participants and I were quickly able to establish the conversational tone needed during this type of interview--a delicate balance between formal and informal, while still ensuring I was able to ascertain the information needed for the purpose of my research. In many school locations, teachers and students brought in artefacts of their work to show me and further highlight some of the information they shared with me. There were many stories and much laughter shared, exactly what I would expect from colleagues and students in middle level learning environments.

Departing from the research context. The question of when to stop collecting data is a difficult one for researchers, especially as they become more drawn into the work through the engaging interactions with study participants, often sharing much in common with other professionals in the field. Stainback and Stainback (1988) have said that it is the researcher who determines if enough data has been collected to answer the original research question(s); researchers may also begin to see repeating patterns in the data, a potential sign of saturation. Knowing when to depart from the research context was more of a challenge that I had anticipated for two reasons. One, I wanted to ensure I had enough data to properly represent the participants' beliefs and lived experiences in the case study narratives; and, two, I felt I had developed very positive professional relationships with those who agreed to open their schools, their very personal pedagogical beliefs and practices, and their experiences as learners to me. How could I ever thank them for supporting me in my research and in many ways realising my own dreams?

In each school site, I left a gift with the principal, with the idea that it be shared with the school. The gift I chose was that of books, as I can think of nothing better to represent gratitude extending from one teacher to another. The books I chose were a selection from Order of Canada recipient and personal friend, David Bouchard. To me, David represents Canada and the beauty of the Canadian spirit; I hoped these books would help teachers and

students understand a bit more about a country I am proud to call home. As I left the school sites, I truly believed that the work I had engaged in with these new colleagues and students would positively impact the future of early adolescent learning and create a better understanding of the factors that contribute to the establishment of developmentally responsive, intellectually engaging middle level learning environments.

The Process of Data Analysis

Each qualitative inquiry into a phenomenon of interest is unique and therefore methods employed to analyse the data will share this unique quality. Alvesson and Sköldbberg (2000) consider data analysis to be an iterative process requiring the researcher to engage in reflection and interpretation on multiple levels; they term this process “reflexive interpretation” (p. 248). There are no clear rules or processes to guide this reflexive interpretation, therefore, the judgement, intuition and ability of the researcher to highlight key issues all play a significant role in the process of data analysis (Alvesson & Sköldbberg, 2000). As addressed earlier in Chapter Three, I made the decision to employ constructivist grounded theory processes during data analysis; this decision was based the strengths of this methodology in the approach to data analysis and practical theory generation. Charmaz (2012) proposes use of the tools of constructivist grounded theory to answer the “what” and “why” questions typical of qualitative research from an interpretive viewpoint. “By questioning our data--and emerging ideas--with analytic questions throughout the research, we can raise the level of conceptualisation of these data and increase the theoretical reach of our analyses” (Charmaz, 2012, p. 4). The building of in-depth cases and ultimately practical theory from textual interview data required that I “open up” the text of the interviews and look beyond surface citations to uncover deeper meaning and insight. Drawing on the work of Charmaz (2000, 2001, 2012) allowed me to interact with and make sense of the data in a

manner that was manageable, but also required me to be constantly vigilant, reflecting on and rethinking patterns I saw emerging through the data at all times.

Even before onsite data collection concluded in December 2014, I began the methodical process of transcribing interviews as well as reviewing and reflecting on observations I had made and site documents I had collected. I chose to transcribe the interviews myself, listening to interview recordings through headphones and transcribing them verbatim into a document on my computer. This provided me with an additional opportunity to review and reflect on the interviews before any formal analysis began by allowing me to process the data in its original form. Also at this time, I began to organise my observations and memos into first iterations of categories; this assisted me in organising and managing the growing volume of data. Very basic outlines of case summaries were created which permitted further reflection on the aims I had for this research and reflection on whether I was gathering the data that would support these aims. This beginning step in the analysis of data allowed for emerging issues to be identified that would guide further data collection, and in some cases slightly impacted the phrasing of interview questions and subtleties in the interview process.

After data collection had been completed and all interviews had been transcribed and verified, I began the process of qualitative coding. Going through the interview transcripts and breaking the text into pieces to search for patterns, similarities and dissimilarities in the data is a hallmark process of grounded theory. I considered using various software programs available to assist in the analysis and coding of data, but after much deliberation, I chose not to use software for coding, making the decision to interact with the data on my own. My research study was the first opportunity I have had to engage in this type of formal and in-depth research on my own. I wanted to be focused on the data and the data alone, wrestling with the questions of “what is this” and “what does it represent” and emerging patterns and

relationships, not on technical issues related to a particular software program. I wanted to make the connections myself, based on my own observations and so-called “light bulb” moments, not some recursive pattern identified by software.

The next issue I had to resolve was how to ensure the data analysis processes I engaged in produced the two aims I had set out for this research; one, the development of rich, in-depth case studies; and two, the development of a practical framework to guide the establishment of developmentally responsive, intellectually engaging middle level learning environments for early adolescents. In order to address these two needs, I employed a two-part process for data analysis. The first step involved the in-depth analysis of each of the three cases, determined by the country in which interviews took place. Part two involved a cross-case analysis of the three cases, assisting in the formulation of the practical framework (Lauckner et al., 2012).

Part 1: In-depth individual case analysis. Data from each individual case was analysed using the strategies of coding, memo writing, visual mapping and the development of core categories as outlined in Charmaz’s (2006) constructivist grounded theory methods for data analysis. Charmaz (2012) writes that the main analytic strategies of grounded theory, “consist of coding data from the start of data collection, using comparative methods, writing memos...to fill out your emergent theoretical categories and make them robust (p. 4). Grounded theorists begin with theoretical categories, informed by specific aspects of the phenomenon the researcher is interested in examining. Data derived from coding and other processes fill these initial theoretical categories, which assist the researcher in identifying variations and relationships (Charmaz, 2012). For me, these theoretical categories were informed by the three sub questions I created to examine additional aspects of the phenomenon being studied--the beliefs and experiences of instructional leaders, lead teachers and students in middle level learning environments. The use of comparative methods during

all levels of analysis is another key feature of grounded theory, “[comparing] data with data, data with codes, codes with codes, codes with categories” (Charmaz, 2012, p. 4).

“Grounded theory coding is inductive, comparative, interactive, and iterative--and later--deductive” (Charmaz, 2012, p. 4). In describing the coding and memo-writing strategies used by grounded theorists, Charmaz (2012) is clear to distinguish the way in which grounded theorists write their codes and memos from other researchers adopting similar strategies in other qualitative approaches to data analysis. Many researchers citing the use of qualitative coding methods, do so for the purpose of sifting and sorting, identifying topics and themes, whereas, according to Charmaz (2012) grounded theorists are looking for “processes, actions, and meanings” (p. 5). This approach to coding keeps the researcher deeply involved in all aspects of [her] data and it is this type researcher interaction with data that is a foundation of constructivist grounded theory. Another aspect that distinguishes constructivist grounded theory coding from other qualitative coding methods is the analytic perspective from which the researcher begins to immediately approach the data and continues to do so throughout the analysis process (Charmaz, 2012). With this knowledge and wisdom in mind, I began the process of open coding. In the next paragraphs, I will outline specific steps I undertook in the data analysis process, and while I present them in one order, I do not intend to imply the analysis of data was a linear process. My experience with data analysis was very much cyclical and recursive, moving from one step to another, then back again, sometimes forward two steps, only to return to the previous step because something had caught my eye.

Open coding. Charmaz (2012) advocates for the line-by-line coding of interview data, and when possible, she urges the researcher to code in gerunds, the noun form of a verb, usually ending in “ing.” This, Charmaz (2012) believes lends itself to building action into the codes, focusing on processes, action and meaning rather than simply sorting interview data

into themes and topics. I began coding each interview in this way, line-by-line, using gerunds whenever possible. In some cases the most appropriate codes to assign to interview text were in the form of “in vivo codes,” using the participants wording; other times, I used constructed codes, stemming from commonly used terminology in education, or short forms of phrases that made sense to me. An extensive list of recurring code labels and corresponding first iterations of theoretical categories emerged, which through the second phase of coding I modified into tentative categories, becoming more and more refined and reflective of the data story at each level of analysis. According to Charmaz (2012), codes become labelled constructs of the researcher, created as they interact with and attempt to find meaning in their data.

Coding in this manner is a very labour intensive process, taking up considerable time, and there ultimately comes a point when you ask yourself just how long you have to continue with the process. Charmaz’s (2012) simple answer is to continue on with line-by-line coding until the researcher sees recurring codes they would like to further explore or when codes begin to repeat to the extent that no new codes emerge. This does not intend to imply that analysis stops when line-by-line coding ends, quite the opposite. This triggers analysis on other levels, allowing the researcher to explore further interpretations as they compare codes with codes, data with codes, codes with categories, and so on (Charmaz, 2012). This is precisely what I experienced. I was careful not to end the line-by-line open coding process too early, as I wanted to ensure I did not miss anything. [I think, for me, there is always a sense of not wanting to miss something extraordinary.] Approximately two-thirds of each interview was open-coded, line-by-line, after which I began to study the codes, looking for the deeper story behind the codes.

Focused coding. The remainder of each interview was not disregarded, I continued to compare this data to existing codes, most often codes that appeared frequently or those I

found to be significant. I also compared the remaining interview text to the theoretical categories I had initially created. This furthered the iterative and interpretive nature of constructivist grounded theory coding and assisted in refining initial theoretical categories. I conceptualise the difference between open and focused coding in the following manner; open, line-by-line coding served primarily to identify variables, whereas, during focused coding relationships were examined--relationships among codes and between codes and categories. From each case, there were approximately 35-55 codes that emerged as recursive and significant and tended to fall within one or more theoretical categories (see Table 5). Through examining codes against theoretical categories, I was able to further refine theoretical categories into more tentative categories, moving me closer towards the goal of generating a practical framework for responsive middle level learning environments (Charmaz, 2012).

Memo writing. In constructivist grounded theory, memo writing serves to assist the researcher in further describing something they find as significant in their data. Memos often form the beginning ideas for a researcher's interpretation of something that has struck them as significant in the data. I used memo writing during data collection as a means of keeping track of things I found to be significant during the interview, summarising key points or serving as a reminder of something to pay attention to as I began to analyse the data. During data analysis, Charmaz (2012) sees memo writing as analytic tool to assist the researcher in examining their data on a level beyond assigning and comparing codes. I viewed memo writing as "little notes to self," helping me articulate what I believed I saw emerging in the data, my interpretation of something a participant had said or highlighting an idea I wanted to explore further. Memo writing gave me an opportunity to clarify what I perceived to be the emerging story in the data.

After coding and memo writing was completed for each interview, I studied the codes and memos separately, often returning to the data to re-examine it using a different lens. Charmaz (2012) believes memos to be, “places to evaluate which codes to raise to tentative categories... further [strengthening] your emerging analysis” (p. 9).

Visual mapping. With the processes of coding and memo writing complete, there existed a significant amount of data that when studied on sheet after sheet of paper tended to blur into “one big mass” of data for me. Based on the experience and advice of Lauckner (2012) given to other doctoral students, I felt that an opportunity to examine the codes, tentative categories and memos in a more visual manner might yield insights that I had not yet considered. For the process of visual mapping, I took the significant codes and the memos I had written along with the tentative categories that continued to be refined and transferred them onto sticky notes. I grouped the sticky notes with codes and memos in ways that were natural and immediately evident. It would have been easy to simply sift and sort the codes and memos into the tentative categories, however, I wanted to determine if there were any relationships or groupings that I had perhaps not yet considered. The visual mapping process helped me to see other patterns in the data, which prompted two actions on my part--one, I went back to the raw data and re-examined it in light of these new patterns; and two, I further refined the tentative categories to reflect the new patterns and relationships that emerged through the visual mapping process.

Development of core categories. This additional opportunity to reflect upon, review and ask questions of my data and my analysis of it, coupled with the other strategies I used to interact with and analyse my data, led me to a point where I felt ready to put forth core categories that properly represented the data for each case. These core categories were the next step needed for the purpose of the cross-case analysis, eventually leading to the development of a practical framework. Glasser (1978) and Strauss and Corbin (1990) term

this phase selective coding, as it is here the researcher identifies the core variable or category to be used in theory generation. Central to constructivist grounded theory is the acknowledgement of the existence of multiple possible core variables or categories from which a practical theory will be constructed (Charmaz, 2000, 2002, 2012). Although each case was analysed separately, I found that despite expected variations among cases with respect to contextual and practical factors (more attributed to cultural perspectives on education than anything else) these core categories reflected and spanned the lived experiences and beliefs of instructional leaders, lead teachers and students in all 12 school sites. Each individual case produced seven to ten core categories. These core categories served as the basis for the cross-case analysis (see Table 5).

Understanding the nature of the relationships among core categories is an important step in being able to accurately portray the complexity and unique features of each case. The initial process of open coding assists the researcher in deconstructing concepts into codes; then through focused coding, the researcher discovers how those codes connect to each other within larger categories. In order to construct the story of each case, I needed to understand how my identified core categories related to each other. I did not feel I needed to recreate Strauss and Corbin's (1998) reflective coding matrix, I did however, find their investigative questions to be a helpful tool when examining the relationships and interactions among recurring codes and core categories.

- What is [insert category name]? (Using participant's words helps to avoid bias.)
- When does [insert category name] occur? (Using "during..." helps form the answer.)
- Where does [insert category name] occur? (Using "in..." helps form the answer.)

- Why does [insert category name] occur? (Using “because...” helps form the answer.)
- How does [insert category name] occur? (Using “by...” helps form the answer.)
- With what consequence does [insert category name] occur, or is [insert category name] understood? (adapted from Strauss and Corbin, 1998, as cited in Scott, 2004, p. 115)

Using these questions and a version of a conditional relationship guide I created for my own purposes (see Appendix K), I was able to conceptualise on a different level the connections among recurring codes and core categories and how this impacted the larger phenomenon being studied (Scott, 2004; Strauss & Corbin, 1998).

Table 5

Number of Recurring Codes and Core Categories Emerging from Analysis of Data

Case	Recurring Codes	Core Categories
Germany	43	9
Finland	55	10
Canada	38	7

Part 2: Cross-case analysis. For the process of cross-case analysis, I compared the core categories identified in each individual case to determine what similarities or dissimilarities existed among the three cases. Once these were identified, I considered the underlying causes. Could the dissimilarities be attributed to cultural, contextual, philosophical, positional, personal or other influences? What might account for the

similarities? Through this process seven categories, reflecting factors that contribute to the establishment of developmentally responsive, intellectually engaging middle level learning environments, emerged as being significant and shared across all three cases (see Figure 1). I returned to raw interview data to re-examine what participants had articulated for subtleties in contextual and positional beliefs and lived experiences that may account for cross-case similarities or variances. Previous codes and memos were revisited, comparing them now on a cross-case level, as opposed to within an individual case, to uncover shared strategies and processes. Using the seven shared categories, all raw data and analysis data linking back to these categories was again reviewed to search for any insights that would support the creation of a practical framework contributing the establishment of developmentally responsive, intellectually middle level learning environments. Through this process of cross-case analysis, I am confident that the practical framework I propose is the best reflection of my data analysis and represents the beliefs and lived experiences of study participants in a manner that will benefit others working with early adolescents in middle level learning environments.

The Writing Process

The generation and analysis of data yielded a significant amount of information and at times I struggled to find a way to manage and interact with the data as well as my own interpretations and constructions of it. When there are so many rich constructions of experiences to draw from, I was faced with an overwhelming feeling of how could I possibly determine what was most important to share. The words of Strauss and Corbin (1990), “What essential message about the research area do you want to pass on to others?” (p. 123) served as a guide during the writing process to help me determine what information would have the greatest impact on those working with early adolescent learners in middle level learning environments. Constructivist grounded theory informed and in many instances

guided the analysis of data generated from each case, resulting in significant recurring codes and emerging core categories; however, in the writing of the cases, these pieces needed to be reconstructed and woven together in order to help the reader see the uniqueness of each case through my eyes, informed by the lived experiences of the participants. In keeping with the original intent of my research, I wanted to portray each of the three cases in a rich, in-depth manner, with a narrative quality that would draw the reader in to the lived experiences and beliefs of the participants. It is here, in that deep sense of personal connection to the experiences of colleagues and peers in similar contexts, where I felt there was an opportunity for significant change to occur--or at least enough of a disruption in thought would be created to challenge educators to reflect on their current beliefs and practices.

Consistent with the methodological underpinnings of my research study, participant's own language in the form of direct quotations was used whenever possible throughout the case descriptions in order to maintain the uniqueness and integrity of their experiences and points of view; however, participant names were not used, nor was the name of the school, only a description of the school context. Charmaz's (2000, 2003, 2006) constructivist grounded theory advocates to using and integrating multiple participant perspectives into the constructions of social phenomenon. This lends itself to a more narrative than scientific approach towards how study findings are communicated (Charmaz, 2001). Another method I used to facilitate this narrative quality in the writing was the use of pictures I took while in each school site. While I did not include the actual pictures in the dissertation, referring back to them assisted me in creating rich descriptions of the school contexts, an important factor, as I ultimately want my readers to see themselves and their work in the work and lived experiences of the participants and schools represented in the study, thus facilitating the transformation process.

Another advantage of the choice I made to combine case study and constructivist grounded theory methodologies is the potential of moving rich description of a phenomenon to the practical realm. This was done through the cross-case analysis of core categories, resulting in the generation of a practical framework, that, when considered alongside the three rich case narratives, I believe will have a significant positive impact on early adolescent learners and middle level learning environments.

Chapter Four - Images of Leading, Teaching and Learning in the Middle: Discoveries

Organisation of the Chapter

Before sitting down to write my dissertation, I believed--perhaps falsely--Chapter Four, the sharing of the stories of my study participants and the presentation of my findings, would be easiest. I emerged from the data analysis phase with a mass of information, broken into chunks consisting of codes; and, with codes swirling in my head, I was faced with the task of trying to reassemble the pieces into the vibrant and engaging stories that would represent the lived experiences of my study participants. It required a shift in mindset, from the breaking apart of the data during the analysis phase detailed in Chapter Three, to the reconstruction of the pieces into the compelling cases that are the essence of Chapter Four. This shift proved to be more difficult than I had anticipated. I struggled with how to frame each of the three cases and with how to maintain a structure that would provide for cohesiveness among the three cases, while still allowing for the complexities and intricacies unique in each country to emerge. I believe what I finally settled on to be not only the most logical presentation of my findings, but also the most impactful, as I hope to have provided readers with the kind of narrative where they will identify with and be drawn into the lived experiences of my study participants.

I will begin each of the three case study narratives with a general overview of the education system in that country, highlighting key factors that have contributed to the ways in which the country views and approaches early adolescent education. The next section will be organised by returning to the foundational research perspectives underpinning my investigation into early adolescent learning and middle level learning environments: instructional leadership as envisioned by Robinson (2011); instructional practices as outlined by Friesen (2009); and student agency as a necessary component of Dweck's (2008) growth

mindset. Whenever possible, I have used the words of study participants to draw the reader into the unique and challenging world of leading, teaching and learning in middle level learning environments. As many participants were very brave and conducted their interview with me in English, not their home language, I have at times adjusted the wording of their statements to ensure the intended meaning was conveyed to the reader. The use of square brackets indicates where these changes have been made. I have presented the lived experiences, beliefs, hopes and challenges facing instructional leaders, lead teachers and students by participant group, under the headings of:

- Images of instructional leadership in [country name] middle level learning environments;
- Images of instructional practices in [country name] middle level learning environments;
- and, Images of the student experience in [country name] middle level learning environments.

I have then used sub headings under each participant to group to tie participants' experiences back to key tenets in the research of Robinson (2011), Friesen (2009) and Dweck (2008).

The headings for each participant group are similar across the three countries; there are, however, some differences which reflect the unique context of each country.

The Finnish Research Sites

The Finnish Context for Middle Level Education

Since the release of the 2000 PISA results, there has been much written in praise of the Finnish education system. The success of the Finnish education system can in part be attributed to the success of the Finnish society as a whole and the core values of equity and

equality (Kupiainen, Hautamäki & Karjalainen, 2009). In stark contrast to Canada, there are clearly outlined national standards and regulations governing all levels of education in Finland, from pre-primary to the tertiary level. Under the direction of the Finnish Ministry of Education and Culture, the Finnish National Board of Education (FNBE) is tasked through legislation with the development of all levels of education in Finland (Finnish Ministry of Education and Culture, 2014). Since the significant economic recession in Finland in 1990 and the subsequent re-commitment and re-visioning of the nation's education system, the strength and stability of education in Finland can be attributed in part to the *Development Plan for Education and Research* legislation, outlining the vision and direction for the Finnish education system (Kupiainen et al., 2009). This plan is developed by the Ministry of Education and Culture and approved by the government for the following five calendar years. Regardless of what changes may occur in the 200-seat Finnish parliament, the *Development Plan for Education and Research* ensures consistency in policy governing the nation's education system (including funding) until such a time that the new plan is prepared and approved (Finnish Ministry of Education and Culture, 2014a). In keeping with deeply rooted cultural values of equity and equality, the Finnish education system is centred around the belief that education is a fundamental right of all citizens. The *Basic Education Act* guarantees everyone residing in Finland (regardless of citizenship) equity of access and equality of opportunities afforded through free basic education (Finnish Ministry of Education and Culture, 2010). In keeping with the public commitment to and value placed on education, Finnish compulsory basic education and upper secondary education is entirely publicly funded:

One of the basic principles of Finnish education is that all people must have equal access to high-quality education and training. The same opportunities to education should be available to all citizens irrespective of their ethnic origin, age, wealth or

where they live. Education policy is built on the lifelong learning principle. (Finland Ministry of Education and Culture, 2014a, para. 1)

The *Basic Education Act*, the *Basic Education Decree* and the *Government Decree on the Objectives and Distribution of Lesson Hours in Basic Education* are comprehensive pieces of legislation governing both primary and secondary education in Finland, addressing educational objectives, content, evaluation, structure and the rights and responsibilities of teachers and students (Finnish Ministry of Education and Culture, 2014a). Basic, compulsory education in Finland begins the year of a child's seventh birthday and is delineated in a nine-year scope, with the possibility of an additional year should students not meet necessary standards for the advancement to upper secondary or vocational school. This basic education is delivered primarily through Finland's 2,576 comprehensive schools and consists of primary and lower secondary levels of education (Statistics Finland, 2014). The length of the school day and the number of lessons are outlined in national legislation; the minimum number of lessons varies by grade and increases in upper grade levels (Finnish Ministry of Education and Culture, 2014a). There are no regulations written into legislation concerning class size with the exception of special needs education. All students attending basic, compulsory education are provided meals at the school each day (Finnish Ministry of Education and Culture, 2014a). The aim of the nine-year basic education sequence is to provide students with the foundational knowledge and skills needed as they grow and develop into ethical, contributing members of Finnish society (Finnish Ministry of Education and Culture, 2010). There are no national standardised exams during a student's time in basic compulsory education. At the end of year nine, students' final assessments, for which there are national assessment and grading guidelines, in large part determine the upper secondary school students will attend. This is done through an online application process where students select their top five choices for upper secondary schools, including vocational

upper secondary schools; and, students are placed in schools based this final assessment which addresses objectives outlined in the national core curriculum (Finnish Ministry of Education and Culture, 2014a).

Approximately 50 percent of students attend general upper secondary schools and another 41 percent attend vocation upper secondary schools (Statistics Finland, 2014). Upper secondary education builds on the foundations established during basic education in a three-year scope. The *Government Decree on the General National Objectives of General Upper Secondary Education and the Distribution of Lesson Hours* was enacted in 2002. What follows are excerpts from a translation of this legislation describing the objectives of upper secondary school:

The aim is that the students learn to appreciate natural and cultural diversity and respect for life and human rights... Education must support students' growth to mature responsibly on their own taking into account other people's welfare, the environment and the state of civil society. Students are introduced to business and entrepreneurship. The student's cultural identity and cultural awareness deepens. Education and all school activities support equity and equality... Education needs to encourage students to study the community and society, locally, nationally and internationally. The goal is for students to learn together with others to promote human rights, democracy, gender equality and sustainable development... The aim is that students acquire good habits and be able to express their cultural identity, and that students are aware of their own personal special nature... Education must train the students for a wide range of self-expression and interaction skills and to express themselves verbally and in writing, in both official languages, as well as at least one foreign language. Education shall provide aesthetic experiences as well as

experiences in various art forms. (English translation as cited in FINLEX, 2014, para. 3-5)

Upper secondary school ends with a matriculation exam created and overseen at the national level, which allows students to continue their education in the Finnish tertiary education system comprised of universities, polytechnics or vocational institutions.

The FNBE is responsible for developing the national core curriculum for all levels of education, from pre-primary to upper secondary. This curriculum, currently undergoing revision to be implemented in 2016, outlines learning objectives, core content as well as cross-curricular themes for each subject area, and principles for student assessment (Kupiainen et al., 2009; OECD, 2013b). Developing a student's ability for self-reflection and self-assessment is a central aspect of the core curriculum, assisting students to become cognizant of their own learning processes and progress towards identified national learning objectives. The present national core curriculum contains 18 subject areas that all students in compulsory education will study. Also addressed in this core curriculum are matters such as student well-being, special education, learning context and environment, and principles of learning (FNBE, 2004). The core curriculum identifies the learning environment as crucial to ensuring the learning outcomes are met. Although teaching methods and approaches are proposed as part of the national core curriculum, responsibility is placed on the teacher to determine how all students meet the objectives of the national core curriculum. The role of the student as an active participant in his/her education is also underscored in the national core curriculum (FNBE, 2004).

Within Finland's model of education, there is a high degree of responsibility and autonomy given to local authorities for organising and delivering all that is involved in the basic, compulsory education of its youngest citizens; the primary task being to ensure all

students, regardless of learning ability, are given the opportunity to learn (Finnish Ministry of Education and Culture, 2014a; OECD, 2013b). Other areas of local authority include the structure of the school day, safeguarding the of all students, determining how instruction will be organised, allocation of school funding and ensuring the local context and environment are respected and present in the delivery of the national core curriculum (Finnish Ministry of Education and Culture, 2014a; OECD, 2013b). Local authorities along with the larger municipalities are responsible for both general upper secondary and vocational upper secondary schools. A class teacher generally teaches grades 1 through 6, while students in grades 7 through 9 are taught by subject-specialist teachers, with one of these subject-specialist teachers assigned to have advisory responsibility over a particular class of students for two to three years. Most schools adhere to a 60-minute lesson length, of which at least 45 minutes must be devoted to instruction. Some schools have begun to move to 90-minute blocks with a larger break in-between. The duration of the school year in Finland is 190 days (Finnish Ministry of Education and Culture, 2014a). Local authorities may determine the start date of the school year in addition to any school holidays throughout year. The end of the school year, which is always the last working day of the 22nd week of the year, is determined at the national level (Finnish Ministry of Education and Culture, 2014a).

Teaching is a highly valued and respected profession in Finland, on par with doctors, lawyers and engineers. Statistics from 2012 indicate only 14 percent of those who took the national exam for entrance into one of Finland's eight universities with teacher training programs were accepted (Finnish Ministry of Education and Culture, 2014b). It is often widely publicised that all teachers in Finland hold Master's degrees; and, while the percentage is high, statistics from 2010 indicate 90 percent of primary school class teachers, 95 percent of upper secondary school subject teachers and 78 percent of vocational secondary school teachers have a Master's degree (Statistics Finland, 2014). Teacher training for those

wanting to be class teachers focuses first on pedagogical studies with a secondary focus on subject specific areas. Subject teacher training is centred first on the subject area prospective teachers identify they want to teach, with general pedagogical theory making up a smaller portion of teacher training (Finnish Ministry of Education and Culture, 2014b).

The Teachers' Education Act, the Teachers' Education Decree, the Teaching Qualification Decree and the Quality Criteria for Basic Education are national pieces of legislation that clearly outline Finnish quality standards and regulations for teacher inductees, teachers and teacher training programs (Finnish Ministry of Education and Culture, 2014b). In 2010, the Osaava Programme was established by the Ministry of Education and Culture to support ongoing teacher professional development in all Finnish schools (OECD, 2013b). Although it is often said teachers in Finland have a high degree of autonomy with regards to what goes on within their classrooms, there is a significant amount of national legislation that sets clear guidelines and criteria for all aspects of teacher practice. Much has also been written about Finland's preventative approach to ensure all children succeed in school in accordance with their abilities. Again, much of this comes in the form of policy at the national level related to early identification of students who struggle and provisions of holistic supports required at the school level such as guidance counselling, school nurses, school psychologists and social workers to ensure the needs of students are being met (OECD, 2013b). A clear benefit to Finland's highly legislated education system is the consistency and quality purported to result from this legislation, along with public trust garnered in the quality of education all students receive.

Finland continues to come out on top in PISA measures for reading and also shows one of the smallest gaps between its highest and lowest performing students, a PISA indicator for equitable access to learning outcomes (OECD, 2013). Scores on PISA measures of mathematics remain high, despite Finnish students receiving comparatively less instruction

time in math than other OECD countries (OECD, 2014b). While the immigrant population in Finland is low at 2.6 percent, compared with the OECD average of 10.3 percent, immigrant students, as well as boys perform much lower on OECD tests of reading than girls do (OECD, 2014b). Increasing the performance of these two groups of students has become a priority in Finland. National legislation has been created to target support for these students in the form of the *Ministry of Education Strategy 2015* and the *National Core Curriculum for Instruction Preparing Immigrants for Basic Education* (OECD, 2014b). According to the recent TALIS measures, Finnish teachers teach on average 100 hours less per year than other OECD countries and experience one of the lowest student-teacher ratios (OECD, 2013c). A reported 95 percent of Finnish teachers feel satisfied with their jobs (OECD, 2013c).

There are three factors inherent in the Finnish education system, which I believe play a significant role in supporting the unique developmental and learning needs of early adolescent learners.

1. National legislation very clearly articulates the vision for education in Finland. Further, the focus on lifelong learning and comprehensive knowledge in a wide variety of subject areas and also in understanding what it means to be a citizen of Finland, ensures there is a place for all early adolescents to experience success and feel they belong in school regardless of ability or unique areas of interest. Students will study 18 subject areas in their nine-year compulsory education scope with the addition of optional courses in lower secondary school. This type of broad exposure to many subject areas during early adolescence, including the arts and multiple languages, supports multifaceted growth and development for these learners.

2. While perhaps not specifically written into national legislation, there are provisions within Finnish educational policy that are well suited to the unique learning needs of early adolescents. In Finland, the learning environment is a matter specifically addressed in the national core curriculum. Giving students, especially early adolescents, choices with regards to where they can complete their learning tasks, a strong emphasis in the national curriculum on the environment and outdoors, and the opportunity for students to either accelerate their studies, or take an additional year to complete their compulsory education all serve to support the success of early adolescents in school. The *Decree on Basic Education* goes so far as to articulate the need for students to have sufficient time for rest, hobbies and recreation outside of school time.
3. National legislation ensures that teachers in Finland are trained with a high degree of consistency; the public expectation is that regardless of where an early adolescent may attend school, he/she will have consistent and quality instruction. Those teachers working with the nation's early adolescents are for the most part subject teachers who have had extensive knowledge about and training in the subject area they teach, along with general pedagogical methods appropriate to early adolescent learners. Teachers are better able to engage their students in learning when they have the subject area expertise that enables them to draw students into the content in meaningful ways and assist students in connecting content knowledge to the world they live in.

Images of Instructional Leadership in Finnish Middle Level Learning Environments

With all I had read about education in Finland, I was very excited to have the opportunity to spend time in Finnish schools, conducting my interviews and observing

students and teachers working together in classrooms. Based on extensive legislation in Finland governing all areas of education, I wondered about the diversity that would exist in the images of instructional leadership I would find through my discussion with school based principals and vice principals. I was curious to see how high degrees of regulation translated into actual leadership and instructional practices in school. What I found was that although teacher preparation programs in the eight Finnish universities are very consistent and follow a predictable track, no such standardisation exists for the development of school principals and vice principals. All principals and vice principals interviewed had worked as teachers in the same school prior to becoming the principal, and all indicated they had taken additional training at the university level related to what they described as “administrative studies”-- involving legal studies, human resources, personal leadership and finance. All held Master’s degrees in education, as is required of most teachers in Finland; yet, each principal had followed a very different path to arrive at the current leadership position.

Philosophies about early adolescent learning. The first question I asked of all principals and vice principals was the personal philosophy they held related to teaching and learning at their school. One principal smiled and replied that he has it posted on the outside of his office door; he wanted it to be very clear for his teachers, his students and the school community what he believed in and why:

I have a personal statement and it is written on the outside of my door and it is attached to positivity, attitude and success. I see that the three of them go hand in hand together. I want us to create useful, worthwhile and appreciated individuals. No student fails, every student will succeed in their own way. There is a place for every student and we will ensure the student discovers this place. This is the work of teaching and learning. (Principal interview, November 2014)

Another principal indicated that his philosophy can be summed up in one short phrase, “Learning together” (Principal interview, November 2014). The principal explained that this applies to both teachers and students:

[Learning together] is something we focus on. Although it is what I believe and hoped the staff would too, last spring it came about that together everyone decided this would be our philosophy going forward. We work together as much as possible. No one is left alone. Teaching is a heavy job and if [teachers] have colleagues who support them, I think it makes everyone better. I think learning together also means students learn together, teachers with pupils and teachers with other teachers. It also means I learn with them too. (Principal interview, November 2014)

A veteran principal and teacher of over thirty years articulated it has taken time for him to shape the philosophy for his school and admitted that he has adjusted it to ensure it was relevant for the current group of students and teachers he has:

[I believe] our work is to meet the needs of [each pupil] and meet them as they are. They have the right to be as they are and as professionals we need to find the best way to support them as learners. It can’t be about us changing them to fit something we see. This is no longer relevant in today’s world. (Principal interview, November 2014)

Most important role(s) as an instructional leader. Principals and vice principals had differing views about their most important roles as instructional leaders. Some felt it was to develop the school and the teachers and also to help parents understand what is going on in the education system as a whole. Others felt it was to ensure the students felt supported as young learners. One principal felt his most important roles changed daily, sometimes he was the “chief problem solver,” on other days he felt more like an “ambassador of the school”

with outside agencies and district administration, and then there were the days where he knew the best thing he could do for his teachers was to be a “sounding board.”

During one line of questioning related to roles and responsibilities, the principal paused for moment, leaned in and said with a twinkle in her eyes:

I would like to blow up what we have. I would like to do this. Time. Space. Classroom. Interaction. Curriculum. This is what I would like to do differently in my school. It is time to leave some of the old ways behind. Next week, we will try to do things differently, but just a small step. I want to show my teachers it is okay to try things and not worry if we make mistakes, because we learn and grow from mistakes. (Principal interview, November 2014)

The Finnish approach to teacher supervision can be summed up quite succinctly through one vice principal’s words, “We are not ‘snoopers’ to coin a phrase” (Vice principal interview, November 2014). He went on to explain:

A lot of autonomy is given to teachers. We have to by law, during the first four months of the probationary period, have visited each of the teachers and given them some feedback on areas that maybe need improving or just compliment them on what they are doing. A form is used, but not really so formal, we just do it for the benefit of the teacher to get some written feedback. But apart from that, unless we are made aware of a concern in the classroom by a group of students or a group of parents, we tend not to go into the classroom and that is quite the norm in Finnish schools because the training is so good in this country. (Vice principal interview, November 2014)

Although their answers many have varied, each principal clearly understood (and felt) the magnitude of their role and wanted to do right by their students, teachers and school community.

Establishing goals and expectations. All principals responded similarly when asked about how they ensured staff felt committed to the direction and vision for the school. One principal summarised it best in saying:

Of course there are challenges. You must treat the teachers as individuals and if they understand the philosophy, they can be themselves within that philosophy. We talk about treating students as individuals; we need to work with our teachers in the same way. Sometimes you need to start slow and have teachers come up with some things on their own within the overall school philosophy. When they see they can still be themselves and it doesn't threaten their autonomy then moving ahead goes faster.

(Principal interview, November 2014)

All principals in Finland have a teaching role and no principal I spoke to saw this as a burden--but, rather an opportunity to better understand what was going on in their school. "So it is important that to sit in the chair of a principal, you need to have been in the trenches and seen life in front of the class and for a significant amount of time, not just one or two years" (Vice principal interview, November 2014). In addition to teaching, one vice principal spoke fondly about how much he enjoyed his supervision duties during the student break:

I am a very strong believer in prevention. Let's stop something happening before it happens, so by being mobile and being visible to the students, it stops a lot of negative behaviour before it even begins as an idea in a student's head. The kind of information students will tell you during lunch is invaluable and can also be really funny. Sometimes I hear about things that are going to happen or problems that are going on and I can intervene before it becomes something really big, and other times I hear things I wish I hadn't. In the end it is about developing a relationship with my

students; I try to never miss a lunch break. (Vice principal interview, November 2014)

Ensuring quality teaching. Perhaps not surprisingly, each principal and vice principal had a slightly different philosophy about what they looked for when hiring teachers. All felt that experience was key, but they disagreed on whether it was length of experience or diversity of experience that was most valuable to a school. One principal articulate his approach to hiring teachers in this way:

I try to find teachers that are open-minded and are good at working with the group. Capable of teamwork and sharing experiences and also taking up responsibilities that the whole school has to care for. It is not so important they specialise only in their subject. [It is] more important they work together well with other teacher and pupils. (Principal interview, November 2014)

Leading teacher learning and development. In terms of professional learning opportunities for staff, principals all shared similar views. “I am not satisfied with this. We lack money for this. It is something that we need to think about differently” (Principal interview, November 2014). Principals felt that because their work also involved a teaching element, they had additional insight into challenges facing both their students and teachers; they often used their own experiences as a starting point for professional discussions and professional learning during the few days they were given.

While my own experience as an instructional leader in Alberta has dictated that data--a vast amount of data, in many forms--is somewhat the norm, principals in Finland had very different views:

I don't think we are so interested in data. There are many things we take care of and pay attention to. I think we can find out how we are doing in many other ways. Not just numbers and tests. (Principal interview, November 2014)

I asked about Finland's PISA results. Although the rest of the world seems to be quite preoccupied with Finland's PISA success [at least in Alberta we have been] Finnish principals and vice principals did not seem to pay that much attention to it. One principal explained it in this way:

The PISA results are good for our parents and the school community because they see the good results and they trust that we are doing the right thing for their children. So, in some ways it takes some pressure off the school because the parents are more supportive. Of course I think that we are doing the right things at my school, but it is nice that we don't always have to battle with the parents. (Principal interview, November 2014)

Resourcing strategically. A challenge that seems to know no borders is that related to resourcing a school appropriately. In Finland, principals resource their schools based on a standard number of teaching hours given per pupil; according to current funding structures, approximately thirteen students in lower secondary school equate to one teacher. The local government distributes additional funds to schools for things like furniture, supplies and technology in an equitable manner, with all schools receiving an equal share of the funds. The exception is any new schools that are built--they typically see larger amounts of start up funds:

Of course we would always like more money, but I think that what we have now is something that I can work with. I think the quality of teaching and learning is not

impacted by the funding we have. We make smart decisions based on what we know we have. (Principal interview, November 2014)

Each local jurisdiction has money set aside for what principals termed “equilisation funds” that principals can apply for if they feel their school is in particular need of something that regular funding has not left with them the money for. While, I could see this as something most principals in my district would apply for year after year, Finnish principals seemed to approach this a bit differently:

I applied for the funding this year to have a wireless network installed in the building. We have only had it for a short time. Other schools will need it next year and so everyone is very careful about applying for the money only when it is absolutely necessary. (Principal interview, November 2014)

Instructional leadership and early adolescent learners. Because of my focus on instructional leadership as it relates to early adolescent learning I was very curious to hear about principals’ reflections on the early adolescent learners in their buildings. Again, their viewpoints varied:

Some [early adolescents] do well, because it is more in their nature. They come to school because there is a rhythm in their lives. They need their friends. It is safe. [School] is not the only place where they think they can learn. We adults, we need to give them space. If young people don’t find meaning in their learning, in their lives, it is quite dangerous. When I was younger we knew that schooling was important to survive in the future. The meaning of school is different for students now. The world around us is so different, they know so much about the world and it comes from many places, not only the school. (Vice principal interview, November 2014)

This vice principal also felt it was important for schools to provide early adolescents with positive role models and images for appropriate behaviour in a civil society:

It seems as maybe something that doesn't need to be said, but I think it does.

Respect. It is so important. To treat students with respect and show them how to treat others with respect. We also have to help them have courage to do mistakes and to try. I think that it sums up the learning together. I think we are social beings who need to be with others to be the best that we are, and we need to model this for students. (Vice principal interview, November 2014).

One principal was very thankful Finnish schools have multi-disciplinary teams available to them to support the needs of their early adolescent learners. This team of professionals typically includes a social worker, psychologist, school nurse and, if needed, special education staff:

I think we have to do our best, but we realise that their needs won't be met in every case. We try to, of course, by working cooperatively and bringing in outside support when we need it. [Early adolescents] face many challenges and so the work is very complex. (Principal interview, November 2014)

The role of technology and social media in the lives of early adolescents were factors one principal saw from both positive and negative perspectives:

[Technology] gives us opportunities, gives them opportunities. We should understand that we won't be able to follow up the latest trends. Just because of the money we don't have. I think we can learn from pupils. They learn a lot of skills in technology in some places other than school. We should also understand and accept this is not the only place they learn. We can support the use of technology and can give students

other perspective on the world. It is not something we should be afraid of. (Principal interview, November 2014)

One principal focused on his belief that early adolescents need to be given increasing levels of independence and self-determination in their learning and explained what his school is doing to foster this:

We aim--we actually have in our curriculum--where the pupils should be able to have their say in what kind of method the teacher goes through in different courses. I think that the most important thing is that pupils have this self-determination; pupils can determine if [they] want to focus on these tasks or these tasks by their own choice, but they have to have the same end goal and the same kind of level of difficulty. This is good for the pupils. They should have a chance to get to decide to do it another way by thinking of their own strengths of abilities. We should focus more on this in the future. We have a culture of trying to give them opportunities where they can decide. It is tough for conservative thinkers to let go of the thought that the pupil is not here to do what the teachers want them to do; but, translate that into the teacher is here for the pupils to help them go through this time of their life and guide them for the future. (Principal interview, November 2014)

Student transitions. The issue of students' transition from primary to lower secondary school was an area where one principal felt schools had a great opportunity to support and develop their early adolescent learners as capable and confident learners:

We provide as much support as we can to students during those first few weeks of lower secondary school. The focus is on community building and building a good class group. For example, everyone goes to one of the islands to do team building exercises. We connect older students to each one of the younger classes to act as big

brothers and big sisters. We provide intentional instruction on how to study and how to be a student in lower secondary school. Some things may seem insignificant, but we really believe they set the individual students and the school as a whole up for success. (Principal interview, November 2014)

Communication that supports student learning. All principals spoke about the importance of communication with the families of early adolescents to ensure students were aware there was a group of people supporting their needs at school. “Wilma” is a tool all schools in Finland use to facilitate communication between home and school, and as one principal put it:

To ensure there are never any surprises. The last thing we want is for a student to be struggling with their learning or behaviour and for it to be a surprise to the parents. When everyone is aware of what is going on then we can work to support the student before things get out of hand. (Principal interview, November 2014)

Wilma serves many purposes--it is a nation-wide expectation that principals, teachers, students and parents will use and monitor the Wilma system. One principal described Wilma in this way:

We have a great internal external system for communicating, Wilma. I'm lost without it. I am able to see the behaviour of students immediately when teachers write something into the program. It helps to facilitate parent communication. I do a lot of my communication with parents, particularly in difficult situations through Wilma. I have found it very successful, because the message I send to the parents, I send to the students as well. They see exactly the same things. If students have a concern they can contact me through Wilma. It's open on my [computer] screen all day long. It

sends a message to the parents' mobile phone so they are always aware of what is going on. (Principal interview, November 2014)

Wilma is also used to support increased student agency in their learning:

Students who are away can see what they miss. It has a lesson diary function, various test planners. If I want to set a test for my ninth grade math class, I can go in and see if other teachers have set tests that day, too. It is an expectation that all teachers and students use Wilma. Teachers must communicate if there are any issues during the lessons. Putting comments in is not an optional thing; it is something teachers use all the time. Upper secondary students use it to sign up for courses. It is a tool we use to increase the responsibility they take for their learning. Teachers might send a message to their students, so it is expected that they are checking Wilma. It is also an electronic version of their report card. Students and parents can see exactly the progress they have made in certain subjects, so there are no surprises with Wilma. We struggled before Wilma with how to communicate in an ongoing way with students and their families. (Principal interview, November 2014)

Lessons learned--Finnish values. I ended my formal line of questioning with principals in Finland by asking what they felt were the most important values of the Finnish education system that the world could learn from. [It was here, I felt our conversations could have gone on for hours; and, I knew that when I left, I was leaving a better instructional leader.] One principal explained the values of the Finnish education system in is this way:

Equality. Humanity. Building pupil self-concept. We want to see who the pupil is and what their strengths and weaknesses are and how we can work together. There are different learners and different teachers. We create enough space and enough

time to find what kind of needs the children have and we build out their education from there. (Principal interview, November 2014)

Trust in teachers as professionals was another value echoed throughout the conversations I had with principals and vice principals:

Teachers are given the responsibility to follow the curriculum but there is also autonomy where they can add, not take away, extra elements to the curriculum. And we trust in what they are doing; and, for me this has always been a key element in the success of the Finnish school system, that teachers are trusted and very highly regarded as professionals in this country. (Vice principal interview, November 2014)

Consistent quality teaching, based on the small number of universities that offer teacher training programs and the high standards for acceptance into teacher training programs is another factor in the Finnish system valued by principals:

[Teacher training] is very demanding, therefore, as principals have to believe in what the universities are doing, and in fact we do. Hence, when we get new teachers in the building, they are already at a certainly quality level. Of course that isn't always the case. But in my experience, 90 percent plus of the teachers we get that have gone through the Finnish system of training are of a very high quality. Very high.

(Principal interview, November 2014)

This final statement from a principal is something I have not been able to get out of my mind since the day I left his school. [As a mother, I cannot help but wonder if the way I have approached parenting my two children is more restrictive and protective than what is healthy for their independent development.] As an educator in Alberta, I envision how things might be different in schools if dominant societal values in the province were different. This principal is insightful in his explanation of the success of the Finnish education system,

reflecting something much larger than what happens in schools, but is in fact a reflection of a successful Finnish society:

I don't necessarily think it is only the Finnish education system that is successful, I think it is society that is successful and the school in a way is a symptom of the culture it sits within. When the children are very young in this country, they are often referred to as "key chain children," they travel on the underground, and they go to school on their own and they have a key around their neck. Nowadays it is a mobile phone, so they are immediately given the skills or pushed towards learning how to survive, how to cope with the environment. At a very early age they are learning and observing what it means to be part of Finnish society. By the time they come here, we see very responsible learners. We see responsible behaviour, and I think that a student who behaves responsibly and learns responsibly, they maybe see themselves as a useful member of society, because they have observed how society works for many years, as they have been coming and going. Hence, it gives them a sense of purpose, a sense of an identity of their own. So in a way, here is your key, get from here to the school and that grows. Then, three or four years later, students have this sense of purpose--I know what I want to do, I know what I want to be. And I think it is our job now, to put those borders around the students, let them be free, but keep them within the realms of a useful member of society. We have responsibility at the school to ensure Finnish society remains successful. (Principal interview, November 2014)

Images of Instructional Practices in Finnish Middle Level Learning Environments

I believe there was tremendous diversity with respect to the beliefs, practices and lived experiences of the instructional leaders I interviewed in Finland. While still rich and

insightful, I believe, interviews with teachers related to instructional practices revealed far more similarities, as might be expected in a country that celebrates consistency and “sameness of experience” found in the eight universities training Finland’s teachers. Questions for teachers were focused on the five core categories of Friesen’s (2009) *Teaching Effectiveness Framework*. I ended the interviews with Finland’s teachers in the same way I conclude interviews with their instructional leader counterparts, but slightly different than with teachers in other countries. I wanted to hear how they would describe the values of the Finnish education system--a system so many countries are envious of.

Preparation for teaching. I began my interviews with all teachers asking about their background in education. All described very consistent experiences in their respective teacher training programs. Some teachers I interviewed took the route of a class teacher, which focuses more on pedagogy and less subject speciality, although they had the opportunity to select one or two subjects to have a “minor” speciality in. Other teachers described the path for a subject teacher, with intensive subject-specific training and a secondary focus on general pedagogy. All teachers held Master’s degrees. With the exception of one teacher who had recently accepted a position at his current school because it provided a better situation for his family, all other teachers had begun their careers at the present school they work in and had no desire to look elsewhere for a teaching position.

Philosophies on teaching and learning. The question I asked of teachers related to their philosophy about teaching and learning was where the greatest diversity existed among them; something I was not expecting. I wondered if the very consistent and structured teacher training programs in Finland would leave room for personal philosophies about teaching and learning or if a more national philosophy on teaching and learning would be articulated; the latter was certainly not the case. One teacher described the importance of teachers facilitating student collaboration and knowledge building:

I believe strongly in co-learning between pupils where they, by themselves, generate their thoughts and ideas and then communicate this with each other. As a group they communicate with each other. And from that point together they communicate some greater knowledge. (Teacher interview, November 2014)

Another teacher who had been working with early adolescents for 15 years explained the value of teacher guidance while building strong and supportive professional relationships with students:

Teaching teenagers is about being an adult all the time. You can't just give them orders; you have to be the adult, an adult who is present all of the time. If I put [the student and I] into a situation where I say it is "this" or "that," then I have lost. If "this" doesn't happen, then I have to make "that" happen and then my relationship with this student is on thin ice. This is the issue I have to avoid as long as I can. Also have to be awake when the students do something good. That is very important. That is the main issue. Tell them they are doing well, that you are proud of them. You need to be interested in them. Notice them. Not pretending, but genuine. And at the beginning I thought, "Can I be interested in them all?" I noticed if I am truly interested in them and want to meet them as persons, it didn't take energy away from me, it gave me energy. (Teacher interview, November 2014)

One lower secondary school teacher who had the roles of both guidance counsellor and teacher described a changing philosophy of teaching and learning based on new realities facing the early adolescents in her school:

Maybe there is no one philosophy. Theory tells us we should use more collaborative learning. Social media is full of that. When [students] have a problem they go and ask. I don't think we have realised how big it is in their life. We should take that as a

tool in school. They do a lot of entertainment together, collaboratively. How can we use that skill? Motivation is always the hardest part. We must adapt teaching styles to the era the children are growing up in. Technology is not the only answer, but we need to explore that more. Adolescents need their friends. I think they need them even more nowadays, so we need to think differently about how this impacts teaching and learning. (Teacher interview, November 2014)

Teachers are designers of learning. The first and second principles of the *Teaching Effectiveness Framework* (Friesen, 2009) focus on teachers as designers of authentic learning experiences, which are true to the disciplines students are studying and worthy of students' time. Student opportunities for voice and choice in their learning are inherent in these two principles and also support increased student agency in the middle years of learning. The Finnish teachers responded in similar ways to the roles student voice and choice play when they design learning for their students. All acknowledged this was something that needed further consideration, but something most felt students needed much more guidance in:

I think we need to learn in that respect. I think we still work in a more old fashioned way, in teacher-oriented ways. The teacher tells students what they are doing in this lesson. Not enough choices given student in our school system. I would like to do that more, apply that more in my lessons. Sometimes there is not always good discipline, so teachers have to pull it back. (Teacher interview, November 2014)

Another teacher echoed these sentiments:

I normally take control. I am trying to give up more [control]. Not always easy. I have pupils right now that don't direct their own work very well. So, I tend to be more in control. I am more in front of the class than I would like to be. (Teacher interview, November 2014)

Work students undertake is worthwhile. It is in the development of the new Finnish core curriculum that one teachers sees hope in moving towards more student voice and choice:

This is an issue in Finland. Far too much, the teacher is the one who guides the student. If you peek into our classes, far too often you see that the teacher is guiding the lesson; the teacher is owner of knowledge. We are in the process of modifying curriculum in Finland, and the stuff that is coming, I am really behind it. The thing I am really worried about is not having support for it across the country because it is different than the past. To take the next steps that are big enough to really make a difference will require more backing. (Teacher interview, November 2014)

In a follow-up question related to student voice and choice in their learning one teacher described what he is working towards in his classroom:

Almost all the time we do the same things. The work is almost the same for everybody. Sometimes I can add some voluntary questions. You can choose this or that. Sometimes, I hate to be that police that always says pick up your pen, sit up. Do this now. I really, really don't like it. I've had a fantasy about having a small subject, perhaps inside biology or geography and I could just say, we are studying Africa, what do you want to do? You have two weeks. I could just be a mirror they could talk with and have ideas. That would be awesome. That is perhaps so far away with this group. (Teacher interview, November 2014)

Teachers in Finland, as with teachers I spoke with in Germany and Canada, struggle in trying to meet the diverse learning needs of the early adolescents in their classrooms. [Although no one said they had come up with a definitive answer, they all promised to share it with me when they did!]:

I feel a little guilty for not being able to give enough challenge for the most talented kids. I would like to find material that by itself creates a situation where you can do your work in your own level. That would be an ideal thing right now. At the moment, my group, there are a lot of challenges, so I guess the most important thing here during this last year is to make these kids be in the same class and be able to be good classmates with each other. (Teacher interview, November 2014)

The autonomy given to teachers in Finland has been the topic of many articles such as an article written by Hancock (2011) for *Smithsonian Magazine* detailing why schools in Finland are successful, and most recognisably in Sahlberg's (2011) *Finnish Lessons*. There is autonomy for Finland's teachers in the sense that once they become certified teachers, they do not undergo any extensive formal teacher evaluation process. I also think the words "trust" and "autonomy" are sometimes seen as one in the same when it comes to teaching in Finland. It was very clear through my conversations with both principals and teachers in Finland that Finnish teachers are trusted--I would not question that at all. However, my perception of the Finnish system is that there exists so much legislation that governs teaching and learning, trust comes from the fact that teachers are expected to carry out their duties as outlined by government standards and regulations. Finnish teachers experience the same restrictions (or freedom, depending on how one views it) as other teachers related to curriculum, and Finnish teachers use their professional judgment just as teachers in Germany or Canada do to determine how to best meet the needs of their students:

There are fairly strict advices from the state. But of course how do you do it all, there is too much content in those directions, so it is really a joke. You have to pick your things and it opens the door for what you can do. So there are the formal directions, but you can choose. The intent in the way that it is written is that you cover all the outcomes. But no one can do it all. (Teacher interview, November 2014)

Assessment practices improve student learning and guide teaching. Suggested practices, methods and tools for assessment in Finland are written into the national core curriculum. It is also something all teachers indicated is a strong focus of their teacher training programs: how do you determine if a student is struggling; what evidence do you need; how do I use assessment evidence to help me understand what I as the teacher need to do next? One veteran teacher explained her beliefs about daily assessment practices in this way:

There is no standardised testing in Finland. Testing is part of the teachers' work, not part of the national mandate. National curriculum says that teachers should assess. No one controls it. Teachers assess and are trusted that they do it properly. Teachers within the school often come together to create common assessments. Of course people assess, it doesn't have to be in such a controlled way. I would like us to keep this part of the Finnish system, just trust the teachers. (Teacher interview, November 2014)

Another teacher explained his views about assessment in his classroom as a continuous process:

When we assess the learning process it is continuous. During the lesson the teacher is observing how the students are learning. [We do] not only use the tests to evaluate. The observations during the lessons are more important. Student self-evaluations with the teacher are also very important. I help my students to always ask questions like, "How did I work during the lesson? How much have I learned about that topic? How did I learn it and how much should I have learned?" Students give a number and I give a number and if there is too much of a difference, then there is a discussion.

Why does the teacher see it differently than the students? I feel this is working well in my classroom and I appreciate that. (Teacher interview, November 2014)

The topic of PISA results came up in every conversation I had with teachers I in Finland, but just as with the principals in their schools, teachers did not place much weight on those international measures of achievement:

Of course we are all aware that Finland has been successful on PISA tests. It doesn't change what I do in the classroom. It's not like we congratulate each other and think now we can relax a bit because we are doing so great. PISA is one thing, just one thing. What matters most is what happens in my classroom every day. That is what I focus on. (Teacher interview, November 2014)

Strong relationships exist. All teachers felt the relationships that exist within their classrooms played a significant role in the learning of the individual students and in the creation of a community of early adolescent learners who support each other. Teachers also described (in some cases, with frustration) the challenges they faced as teachers of early adolescents in helping students navigate not only the content, but also the relationships with other students and what one teacher termed, "a relationship with themselves as a newly developing individual" (Teacher interview, November 2014):

Sometimes they don't know how to be with each other, or to be just alone with themselves. So, there is a lot specific teaching that I do related to how to be a good group and how to work together so everyone gets better. These pieces often need to be addressed and figured out before you can focus on the curriculum. (Teacher interview, November 2014)

Another teacher felt that the best way to develop the relationships in his class among students and between himself and his students was to lessen the anxiety they have around their learning:

It seems very simple but I seem to use quite a lot of nicknames. It creates a bit of an easy environment. When I talk to them I use phrases that let them know I think highly of them. I make them feel they are important. The humour part is also important. Creates a feeling like you are allowed to loosen up a bit and you don't have to be afraid to make mistakes. (Teacher interview, November 2014)

[I discovered that in Finland, it is typical for students to address their teachers by their first names, or sometimes a nickname the teacher has deemed appropriate--often a shortened form of their first or last name].

A veteran teacher of over 20 years explained the changes she has observed related to how the early adolescents in her school interact with each other and their teachers:

The stereotype is that [Finns] are withdrawn, not so social, that we have a quiet personality. I can tell the younger generation is changing, through the social media. They come closer to each other, they hug a lot. They come very close to the adults too. There is a change happening there, the relationship with teachers may need to be different. Sometimes I am so proud of my teenagers with how they express themselves. When I was growing up, I would never do that. (Teacher interview, November 2014)

Teachers improve their practice in the company of their peers. I discovered that professional learning and professional development is viewed somewhat differently in Finland than it is in my home province of Alberta where it is often a hotly debated issue during contract negotiations. Finnish teachers are given three hours during their workweek

that are devoted to preparation, planning and collaborating with colleague--these hours are paid hours. Depending on when the school year begins, there are two or three days available for the staff to come together for professional learning. Teachers indicated there were professional development opportunities available to them; however, the challenges associated with attending workshops and conferences during the school week (primarily related to the lack of substitute teachers available) often out-weighed the benefits. For the most part teachers felt their professional learning needs were met at the school level by engaging in professional conversations and collaboration with their colleagues.

One school has implemented a system of co-teaching that teachers describe as being very supportive and collaborative:

Co-teaching in our building supports teacher professional development and professional learning. It makes teaching less personal, it isn't something just one teacher in the classroom owns. We view it as something we do together now and it feels very supportive and not judgmental. I've learned a lot about how to teach better through co-teaching, not just understanding different content, but also on the subtleties of pedagogy. It is an on-going process; we develop each other. We debrief after the co-teaching lessons and this is a good way for us to improve so we can be better for our students. In this way we can be reactive to what we see emerging in the classrooms. (Teacher interview, November 2014)

Unique supports for early adolescent learners. I was curious if teachers felt there were specific and unique things they attend to in the school to ensure their early adolescent learners were supported in their development. The answer was an emphatic "yes!" with similar explanations that early adolescent learners in particular require intentional support in two specific areas--learning how to learn and navigating relationships:

Strategies for building a good group start right from the beginning of the year, right when students come to the school. It is part of my job, but also part of the job of everyone. How to build a good group is very important. (Teacher interview, November 2014)

Another teacher felt that if they could support students in feeling safe and cared for at school and that they had positive relationships with their peers, then teaching the curriculum was a far easier task:

I am hopeful for the next curriculum to make room, especially during these [early adolescent] years, for things like how to behave with people, how to meet different people, how to treat them well. The other big issue is for students to get to know how they learn best and practice these learning skills. If we only have content after content, we can only give them hints, not give them the skills they need. They need to practice the skills needed to learn and practice the skills of building relationships. The more I am in the classroom, I see students not knowing how to learn. If they learn how to learn, they can always find the knowledge. (Teacher interview, November 2014)

As described previously, one lower secondary school is using a new method of co-teaching which they feel will better support the diverse learning needs of their early adolescent learners. Both the teachers at this school and the principal described co-teaching as being key to supporting both teachers as well as students through the sometimes challenging early adolescent years of learning:

When students are struggling we have two adults there to support the children and also for adults to support each other in their practice. Sometimes we divide into groups and take certain groups out for extra support and extension. It is always

flexible, we create different groups for different needs/purposes. Eighth graders think everything would go well if [teachers] would leave me alone. We, in a way, have been able to get past that because there are two adults. It doesn't get personal. If [one student] isn't working well with me, they can work with another teacher. And then maybe the student responds better to some teachers. (Teacher interview, November 2014)

Important Finnish values. My final question was a personal one, asking what teachers valued in the Finnish system of education. Teachers, like the principals, described values of equity and equality as they relate to school access, teacher training, quality teaching and the student experience, "The main idea has been that education belongs to everybody. Historically it has been an idea that the teaching is almost the same wherever you go to school" (Teacher interview, November 2014). Teachers were also very proud of Finland's commitment to ensuring students of all abilities are taken care of:

The Finnish school system emphasises students who struggle. And we are criticised that we don't take the upper kids as seriously and I agree with that, but I also am motivated to work with those who struggle. I don't always have the answers, the system doesn't always have the answers, but at least it is a value that is so much part of the system that we should never let go of that value. We take a good look at the students at this end of the spectrum and put our resources here. Guidance counsellors are trained to work with families of students who struggle. So their social, physical and emotional health is covered and taken care of. (Teacher interview, November 2014)

A closing sentiment shared by all teachers was how much education was valued as a fundamental part of Finnish culture:

I think we all still value education in this country. We take it seriously. I think we also value nature and space. We have [students] go out to have fresh air. We make them walk, we make them bicycle. We don't just carry them in a car. I think it is a value. We help them know they are Finnish and what it means to be [a citizen] of Finland. (Teacher interview, November 2014)

Images of the Student Experience in Finnish Middle Level Learning Environments

My experience interviewing early adolescents in Finland was exactly as diverse as I would expect a classroom of grade 6 or 7 students to be. One focus group interview proved to be the most difficult of my entire research process. Fifteen minutes into the interview I was still having a conversation with only my interpreter, as eight grade 7 students stared back at me looking terribly uncomfortable and bored. It took an announcement over the intercom about an upcoming “disco” themed dance and my best John Travolta in *Saturday Night Fever* impression before the “ice” finally broke and the conversation began to flow. With another mixed group of grade 7 and 8 students, time went by so fast, their vice-principal was forced to track us down and take the students back to class. The last group of students I interviewed was so intrigued by the recent shooting on Parliament Hill in Ottawa and the recent acquisition of a Finnish hockey star by the hockey team in my city that I was compelled to ask their teachers for more time with them--their teachers kindly agreed. So much has been written about the Finnish education, yet I cannot recall anything I have read that has come from the perspective of the student--I was very eager to hear first hand about the lived experiences of Finland's early adolescent learners.

What makes your school a great place to learn? In response to my opening question about what they liked best about their school, all four groups of students had very similar responses. The opportunity to see their friends was the first answer every time,

“...because learning with friends is more fun” (Student interview, November 2014).

Students also responded that they liked the “break” time and free time they were given. As a teacher and parent, the response to the question “what did you like most about school today?” no one wants to hear is “recess” or “lunchtime,” therefore, I felt compelled to “dig a bit deeper” into what was behind the response that the best part of their school day was in fact the time when students were not in class learning. What I ended up finding out made me feel much better. School timetables for students in lower secondary school in Finland are relatively consistent; one 45-minute class followed by a 15-minute break, followed by another class, often the same one, resulting in a double block. Students liked this predictable flow of their school days. They felt a 45-minute class was just the right length and liked the fact they had double blocks in many of their classes, giving them more time to learn about topics they were interested in. One student explained it in this way:

When you have a double block, the class goes at a better pace. Teachers don’t feel so rushed, like the only thing they can do is stand up at the front of the class and read to you and then tell you to answer questions at your desk. In a double block the teacher breaks things up more. Sometimes we get to work in groups or there will be different groups working on different things or sometimes we might get to work in different areas of the class or even the school. When you have a single 45-minute class, things go very fast and the only thing to do really is sit in your desk and listen to what the teacher is saying. (Student interview, November 2014)

The 15-minute break, which students really liked, gave them enough time to see their friends, check their mobile phones and have a snack, often provided by the school, yet it was not so long that they forgot about being at school to learn. “The breaks give us enough time to take a breath and see our friends before going back to the class to be serious about learning” (Student interview, November 2014). The issue of the lunch break was twofold;

first, meals are provided by the school to all students in Finland, and for the most part, students indicated they really liked the food; and two, most students took advantage of this longer lunch break to go outside, in fact all students said they loved to go outside when they could. Having been in four of their schools, I could understand why. Beautiful wooded areas surrounded the schools, with as much untouched green space as the eye could see. I do not know if all schools in Finland are like the ones I spent time in, but I could understand how students would get excited about any opportunity they had to be outdoors during their school day.

What makes a great teacher? Student also identified a variety subjects they were studying, along with their teachers, as other reasons they liked their school. As with all students I was fortunate enough to interview, Finnish students had no shortage of things to say about what qualities great teachers possess:

Great teachers are kind and funny, and they are friendly to you even when you aren't in class. They explain things well and explain why [it is] important. They help their students understand things even if it takes a really long time. (Student interview, November 2014)

Students were very clear they did not need their teachers to be their friends, but they wanted to feel accepted and trusted by their teachers:

I am going to make mistakes; we all are making a lot of mistakes in learning and sometimes bad choices with life. I need for my teachers to look at me and say, "that is okay, you will be okay." I think teachers need to put themselves in our shoes and maybe not judge us so many times. After I make mistakes I think some teachers look at me like I will just be a bad kid forever. Some teachers don't do this at all, but it really depends on the teacher. (Student interview, November 2014)

One boy in grade 8 was very adamant about clear boundaries between teachers and students, as he explained he had experienced teachers who tried too hard to be friends with their students, "...it was weird. You don't want teachers to be adult friends for students, but you don't want them to be like parents either. It has [to be] a good working relationship" (Student interview, November 2014).

Students felt that for the most part their teachers were approachable and if they needed to talk to them, whether it was questions about what they were learning in class or problems they were having with friends, their teachers would make time for them. Guidance counsellors were also available to students at the school if they chose to see them; however, students indicated they were often more comfortable talking with their teachers about personal issues because of the "history we have with them" (Student interview, November 2014). I heard in the words of student after student how important good relationships with their teachers were in supporting their learning.

Engagement in and relevance of learning. Early adolescent students in Finland study many subjects, far more than Canadian students their age. Students indicated they liked the wide variety of subjects that were part of the national core curriculum, highlighting subjects such as art, sports (physical education), handicrafts (mandatory for all Finnish students, with a focus on cultural traditions), chemistry and music. When I asked why these subjects were most enjoyable to them, students provided many different personal reasons. One student explained that he looked forward to going to his sports class because he competed in swimming outside of school, so he felt this class help him with his physical fitness. Several students spoke about the handicrafts class, which they felt helped them understand Finnish culture in a different way. One girl went on to say that because of her handicrafts class, she has had more in common with her grandmother and that has been good for their relationship. Courses like chemistry and physics were included in the list of

favourites because of the hands-on experimentation component. The overall consensus was that these subjects were important for students because it allowed them to be exposed to diverse learning experiences.

The national core curriculum in Finland is currently under revision, with implementation of the new curriculum planned for the start of the 2016-2017 school year. A similar revision of curriculum is currently underway in my home province of Alberta, as well as the German Land of Baden-Württemberg. In Alberta, key stakeholders are consulted and asked for input during the curriculum revision process; this includes members of industry, teachers, government officials and, in some cases, university faculties. I am always very curious about why students never seem to be included in this group of key stakeholders. I wonder what students would say if they were asked about what they would like to see in new iterations of the curriculum they will be studying. Therefore, it should come as no surprise that students had mixed feelings when asked about the relevance they found in what they were learning.

Students in Finland learn multiple languages, with Finnish, Swedish and English being compulsory in primary school; students have the option of including additional languages as they move into lower secondary school. “I like that we can take many, many languages. This is good for when we travel and some of us want to go into the [International Baccalaureate] program and maybe go to international universities.” (Student Interview, November 2014). One student described a C++ (computer coding) course they take in school. Although some of his peers in the focus group did not agree with him, he felt strongly this was important, “Coding is like a language and this is very important for many jobs nowadays. Some say this is the most important new language” (Student interview, November 2014). Students also articulated the importance of understanding math (but not all topics in math) as well as the necessity of being able to communicate well, “It is important

that we can read and write and speak well. Sometimes in [Finnish] class we all read the same book and write about the same topic. I would like for everything to not be the same”

(Student interview, November 2014).

The concept of opportunities for voice and choice in their learning was something students did not immediately understand when I first asked the question; we, therefore, spent some time discussing what it might look like to have voice and choice in their learning-- ultimately the notion of student agency. Students explained that typically teachers give one assignment and the entire class must do what the teacher asks. In some classes teachers may say to them, “Would you like to do a project or a test?” (Student interview, November 2014) and the whole group decides together what they will do. One student described with great enthusiasm a choice they were given during a recent a science class, “It was about the content of space. We could make presentations and posters about what we learned” (Student interview, November 2014). Another group of students spoke fondly about a history teacher at the school who they felt was very open-minded:

We were learning about the French Revolution and it was quite fun. We can kind of do our own thing. Choose how to work and how to show what we know. [At the end] we have to do a project, a video or slide show or whatever we want. We decided to make a movie, like a talk show person. (Student interview, November 2014)

At one school, students were very excited about a national initiative they were part of called “This Works Project.” The intent of the program is to foster collaborative problem solving, as one teacher explained it to me. Students are given a scenario and limited resources and they have to come up with a viable solution. Those students who were involved in the project articulated wanting more opportunities to work in this kind of collaborative way with their peers to solve problems that for them were meaningful and important.

Assessment and feedback that improves performance. Student responses to the topic of feedback surprised me, in a positive way. All students gave examples of the kind of regular feedback their teachers gave them. Teacher feedback often related to their learning but sometimes teachers talked to them about their behaviour. Students felt this was a positive thing and their teachers, "...just want us to do better and be better" (Student interview, November 2014):

Teachers give feedback on how you can improve and feedback about right and wrong. Sometimes it is just little [information], they just tell us if we did the [question] right or wrong. Sometimes it is about bigger things. Then the teacher says I need to talk to you and asks if you want to improve. (Student interview, November 2014)

The Wilma system is something lower secondary students were very familiar with and knew it was their responsibility to use the system to support their learning. "Wilma is really very good. We can communicate with our teachers. We know what the homework is and when there are tests coming up. No surprises. [We] always know how we are doing" (Student interview, November 2014). When I asked about a formal report card, something students in my school could describe in great detail [and likely with a hint of disdain], I found that the Finnish students had to pause and think for a moment--a discussion often ensued in the group. The report card, which they thought came home at the end of the year, did not appear to be very significant for them. Rather, they described Wilma and through the use of Wilma, students and parents always knew how they were doing in school, so for them a report card was just a piece of paper.

Risk taking in learning. I asked about pressure to do well in school and goals they had for themselves as learners. Students all said they wanted to do well in school and that the only pressure they felt came from them, wanting to make their families proud. They

explained the process all students go through at the end of grade 9 where they would, based primarily on their grades, be placed in one of five upper secondary schools they had selected. This, they felt, would add more pressure to their grade 9 year. All students I interviewed in the two international schools identified a goal of going on to an International Baccalaureate program and having many choices about where they would go to university.

Would you change anything? My final observations or thoughts after my interviews with students in Finland come more in the form of questions than any sort of critical analysis. When I asked about anything they thought their schools could do better or things they would like to change, apart from one boy, who said with a twinkle in his eye, “The food in the cafeteria, we need to do something about the food,” (Student interview, November 2014) no student had anything to say other than they believed their schools were great. [If I asked my early adolescent son about what he would change in his school, he would likely still be listing things.] I wonder what role Finnish culture and the Finnish belief that through education everyone will have a place in Finnish society plays in what appears like overwhelming student satisfaction with their schooling experience. [It is also a distinct possibility the students were just being polite to a stranger from Canada.] The schools I visited in Finland offered no clubs or sport teams (during or after school) for students. It was very clear from my conversations with students that school was for school, and that after school was part of family responsibilities; students participated in many different activities, from dance lessons to hockey practice. My experience with extra and co-curricular opportunities for students in Canada has been that students see them as an important part of their school life, often adding to the culture and sense of community in the school. Students in Finland articulate being far more happy within a school system they feel is preparing them well, certainly more satisfied than their Canadian counterparts. I continue to struggle with being able to pinpoint why exactly this is the case.

The German Research Sites

The German Context for Middle Level Education

If there existed a spectrum depicting federal control over systems of education, Finland would sit at one end representing high levels of federal control; Canada would sit at the opposite end representing little to no federal regulation; and Germany would likely sit somewhere in the middle, characterised by a more joint responsibility between the federal government and the Länder (states) for education in Germany. The constitution of Germany, known simply as *Basic Law*, outlines fundamental beliefs, values and structures of the Federal Republic of Germany. The school system is identified as a basic right in Article 7 of German *Basic Law*. Here, the Länder are recognised as the supervising body of the school system. Within *Basic Law*, there also exist provisions for what are termed “joint-tasks” of the German Federation and the 16 Länder. One such task is the agreed upon cooperation between the federal government and the Länder to assess the performance of the education systems in each Land against various international measures--and based on this, jointly create reports and recommendations. Another significant area of joint responsibilities is the prized German “dual system” or vocational education and training (VET).

To understand current German views and approaches towards early adolescent teaching and learning, one must understand the origins of the education system in Germany. Germany is recognised internationally as one of the first nations that aimed to provide free basic education to all citizens (OECD, 2011). The first modern research university was also developed in Germany, along with a concept for secondary schooling that would prepare young citizens for multiple education, career and life paths. Wilhelm von Humboldt, believed to be the architect of the German Gymnasium, and Georg Kerschensteiner, credited with originating the German dual system concept, where, “the education system would fuse

schooling and apprenticeship in the workplace” (OECD, 2011, p. 203) held very different views about the role of the education system and those who should be served by schooling. Humbolt believed in an elitist view of education, reserved for nobility, whereas, Kerschensteiner was concerned with education for the working people.

At the beginning of the 20th century, four years of compulsory basic education was provided for all students. Following these four years of compulsory, primary education, students were streamed into one of three schools which closely aligned with social divisions of the German feudal system: the Volksschule and later the Hauptschule was designed for the what was believed to be the majority of students--and those with the lowest academic abilities; the Realschule was for students of higher ability who were likely to acquire further training and qualifications in fields such as clerical and technical work; and, the Gymnasium was reserved for students with the highest academic abilities who would go on to take the Abitur (matriculation examination), allowing these students access to university education and professional career paths (OECD, 2011). At this same period in history, many European countries adopted similar systems of tiered education; however, most countries later moved away from this notion of separating students into different streams of education at the age of ten, whilst Germany did not (OECD, 2011). The aftermath of the Second World War and governance structures that required near consensus majorities for significant alterations to *Basic Law* created resistance to significant changes in the education system.

The strong German economy of the 1960s and 1970s, and subsequent demand for highly skilled workers, began to pull students from the Gymnasium into the dual system before consideration of moving on to university (OECD, 2011). This created a shift in the way the public viewed the Hauptschule, Realschule and the Gymnasium; and, it was this public shift in perception that quietly began to transform the three-tier system, which had for so long symbolised German education. Employers could now offer apprenticeships to

students from the Realschule and from the Gymnasium (who had passed the Abitur), and there was pressure from families to ensure children worked hard enough to at the very least attend the Realschule. The Hauptschule, once a place where graduates would go on to apprenticeships and good careers, was now seen as an unattractive option for students (OECD, 2011). This was partly because teachers teaching at the Hauptschule did not undergo the same number of years of training as the Gymnasium teachers.

Another opportunity to overhaul the three-tier secondary school system in Germany presented itself when the Berlin Wall came down:

There was much wrong with the German Democratic Republic (GDR), but their education system was not one of them. When the GDR was created and became a satellite of the USSR, the GDR leaders abolished the distinctions among secondary schools and all secondary schools in the GDR became comprehensive secondary schools. (OECD, 2011, p. 207)

The perception remained that West Germany had a top-performing education system, although, Herman Schmidt, member of the Reunification Commission for Education, articulates there were no established internal measures to assess the West German education system in relation to the rest of the world (OECD, 2011). *Basic Law* at the time gave the federal government no authority over which to measure the performance of the Länder controlled systems of education, so education in Germany was not evaluated or compared to any other system of education (OECD, 2011).

In 1997, the Standing Conference of the Ministers of Education and Cultural Affairs of the Länder recommended that Germany participate in international measures of student achievement. Germany participated in the 2000 PISA assessments and the results from Germany's 15-year-olds shocked the country (OECD, 2011). What was known as the "PISA

shock” presented yet another opportunity for Germany to examine long-held beliefs attached to the tiered system of secondary schooling and to determine what was next for a country that had never exposed itself as vulnerable on an international scale. The 2000 PISA results showed German students to lag behind in every measured area of the curriculum, with the performance of the most at-risk students aligned with some of the worst countries in the world (OECD, 2011). Socio-economic background, along with German language ability was strongly tied to student performance on the PISA assessments, indicating children of immigrant families and children from families with low socio-economic status were particularly at risk. Edelgard Bulmahn, the German Education Minister at the time of the 2000 PISA assessments indicated that the tiered system was no longer responsive to a “modern knowledge-based economy [that] would most need a work force with a very high level of education across the board” (Bulmahn as cited in OECD, 2011, p. 208). Whereas, it was previously more difficult to make a case for change in the German system of education when the economy was strong and the demand for German-made products was high, the 2000 PISA results were perhaps the most significant factor behind the changes now underway in the education systems of the German Länder (OECD, 2011). Political parties operating on both the left and right sides of the political spectrum worked together through the Council of Ministers of the Länder to make changes possible that would not have likely occurred prior to the 2000 PISA results. A common agenda for education reform was put forth to target areas of concern identified in the 2000 PISA results (OECD, 2011). Some Länder changed the age when students are streamed into secondary school from 10 to 12; the Hauptschule and Realschule have been combined into one school in some Länder; comprehensive schools have been reintroduced in select Länder; while in other Länder, parents have been given more freedom to choose which school their child attends (OECD, 2011).

While the Länder attempt to align education policy and make consistent the systems of education whenever possible, there are some differences that exist among the Länder in matters related to education. The *Hamburg Accord*, first signed in 1964, has undergone several amendments which outline items the Länder agree upon, including: when children will begin compulsory education; school holidays; the length of the school year; types of schools offered; and, recognition of school examinations, grades and certificates (European Commission, 2014). Further amendments and supplementary resolutions to the Accord have increased the number of common features in Germany's systems of education and allowed for more consistency among the 16 German Länder with respect to education. This also provides ease of mobility for German families when they move within the country (European Commission, 2014).

Following the 2000 PISA results and the call for increased transparency and accountability, the Council of Ministers from the 16 Länder developed and agreed to national performance standards and competencies in core subject areas (OECD, 2011). Further, the Council, in 2006 developed common assessments used to compare the education systems in the 16 Länder to each other, as well as to international standards (OECD, 2011). The Institute for Educational Progress, based in Berlin, was established in 2004 to monitor progress towards identified educational outcomes. It has developed a framework of national education standards to which the Länder curricula are now being aligned.

It would be "safe to say" that since the 2000 PISA results were published, the systems of education in Germany have been in a constant state of reform and restructuring. How this transformation looks has varied among the Länder. The number of hours German students spent in school was one area highlighted on the 2000 PISA results, revealing that students in Germany spent much less time in class compared to other OECD countries. Many Länder have increased the number of instructional hours for students, moving from the traditional

half-day format to full day school (OECD, 2012, 2014d). A new type of school, in German the Gemeinschaftsschule or community school, has been created in some Länder. The focus is on mixed ability learning groups, with individualised support provided for all students to experience success. For the 2014-2015 school year, 214 of these new community schools existed in the Land of Baden-Württemberg (Baden-Württemberg Ministry of Education, Youth and Sports, 2014). Other Länder have different forms of secondary schools, donning various names, such as the Mittelschule in Bayern, the Oberschule in Berlin and the Stadtteilschule in Hamburg. Each Land has its own regulations with respect to when children transition from primary to secondary school as well as the methods used to assess a child's readiness for a particular type of secondary school. In October of 2012, the Länder amended legislation regarding common principles and courses offered in lower secondary education, further aligning practices in the Länder (European Commission, 2014). New legislation has been enacted to ensure each child, beginning at the age of three, has a place in the German kindergarten system until they begin primary school at the age of six. This is intended to address PISA data indicating a child's understanding of the German language had a significant impact on performance (OECD, 2011).

The ministries responsible for education in each of the Länder are also in charge of curriculum development and redesign. Currently, the curriculum in many Länder is undergoing revision with the results from international comparative data playing a role the direction of curriculum revision (European Commission, 2014). The Council of Ministers from the Länder have agreed, through various pieces of legislation on the necessity of certain elements in the lower secondary curriculum. For example, an awareness of how the various subject areas connect to the world of work outside of school is part of the content of each subject curricula or in some cases taught as a separate course (European Commission, 2014). In 2007, the federal government and the Länder passed joint legislation ensuring education

for sustainable development at school. The study of foreign languages is seen as critically important in lower secondary school, with the requirements for the number of languages varying according to the type of lower secondary school attended. In 2012, recommendations for both increased cultural awareness and education, along with advancing health education in schools were adopted into the curriculum of the Länder. There is presently a focus on strengthening natural science and technology content in the curriculum as well as instruction in these areas. Media competency through the subject areas is also coming to the forefront in the development of new curriculum (European Commission, 2014).

Teacher quality and training have also been targeted through reform initiatives. Teachers' unions were concerned that poor performance in the 2000 PISA assessments would be blamed on the teachers (OECD, 2011). In stark contrast to what may have been expected, proposed reforms to the system of education were supported by teachers and the unions representing them, allowing important initiatives to be passed and the process of implementation to begin. "[Teachers] knew how important it was for them to get out in front of the reform process if they were not to be steamrolled by it" (OECD, 2011, p. 213). Professional pride of Germany's teachers further supported education reforms designed to produce better results.

Further, teacher preparation programs in many universities are currently being restructured or are in the process of a re-visioning. The current German university system requires that all teachers in training have passed the Abitur. German teachers already undergo more extensive training than their counterparts in many other countries regardless of the type of school they intend to teach at. Pre-service Gymnasium teachers receive specific, intensive training in the subject area they desire to teach first; general pedagogy is a secondary focus (OECD, 2011). Teacher training for those teachers wanting to teach in the Realschule, the Hauptschule, the Gesamtschule (comprehensive school) or the new

Gemeinschaftsschule (community school) differs according to university institution. In general, teacher preparation for these teachers has a primary focus on pedagogy, with new reforms equipping teachers with the skills to diagnose and plan instruction for students in a more inclusive environment, with subject knowledge as a secondary focus. The Länder govern teaching regulations in the schools; recommendations for methods, treatment of various subject areas and resources for instruction are outlined through the prescribed curriculum in each Land (European Commission, 2014).

Since the now infamous 2000 PISA results, Germany is one of three countries that have improved in mathematics results and indicators of equity (OECD, 2012, 2014c, 2014d):

Most suggest that it was the PISA shock itself that jolted German educators into action--that once teachers knew how poorly their students were performing, their sense of professionalism was enough to motivate them to improve the situation.

Others think that the new standards give teachers a clear picture, for the first time, of what their students are supposed to accomplish. (OECD, 2011, p. 214)

Students' sense of belonging and connection to school and learning, as measured through various PISA indicators has declined in most countries, but this has not been the case in Germany. Between 2003 and 2012, German students reported a 20 percent increase, from 70 percent to 90 percent, in belonging (OECD, 2012, 2014c, 2014d). Reform initiatives taken since the release of the 2000 PISA results have served to decrease the impact of socio-economic status and immigrant background on student achievement (OECD, 2012, 2014c, 2014d). PISA results in both reading and science have increased since 2000 to above OECD averages, although the portion of students achieving at the highest proficiency levels has not seen a significant increase. Despite reform initiatives to increase options available to families related to choice and type of schools children attend, over half of the variation in student

performance on PISA assessments in Germany can be attributed to which school in the tiered system students attend (OECD, 2012).

The changing picture of education in Germany may be viewed in a positive light--a country using current data to respond to the changing needs of its youngest citizens in an increasingly complex world is to be commended. What is currently taking place in the German systems of education is both responsive and necessary. There are three elements of Germany's education systems I believe are especially important in supporting early adolescent development and learning.

1. Since the release of the 2000 PISA results, and in some cases prior to this, there has been an acknowledgement that old systems, while previously successful on many fronts, may not meet the needs of children growing up in today's society. To an outside observer, current German reform initiatives appear carefully calculated and intentional, seeking an appropriate balance between tradition and progress, between universal education and practical, job-specific training. Systems that can be honest about what needs improvement and then make deliberate necessary adjustments, (without swinging 180 degrees in the opposite direction), provide support for continuous learning and growth in both teachers and students.
2. The successful dual system in Germany provides opportunities for students of all abilities and predispositions to experience success and believe, through their unique skill set, they can contribute in a meaningful way to German society.
3. Functional multilingualism is a term used to describe the commitment of German lower secondary schools to ensuring students are well-equipped to function within a modern European Union (European Commission, 2014). The

opportunities afforded to students by requiring them to learn multiple languages create working knowledge of the languages themselves, as well as the understanding and acceptance of cultural nuances tied to language that are so very important in today's world.

Images of Instructional Leadership in German Middle Level Learning Environments

Philosophies about early adolescent learning. What comes to mind when I think of images of instructional leadership in Germany is my first meeting with a principal of a Gemeinschaftsschule. As I pulled up to the school, I saw a group of students in a wooded area, all either wearing or working with blue plastic garbage bags. In the middle of this group of students was a man, wearing what can only be described as a quintessential First Nation's embroidered buckskin jacket, keeping a watchful eye over the students, occasionally taking one of the many blue garbage bags hanging from his jacket pocket to show a student how it could be tied or cut to make the perfect rain poncho or fastened to a growing collection of branches the students had collected. Some may have been surprised to find out this man was actually the principal of the school. I was not--because, when I think of instructional leadership that meets the needs of early adolescent learners, I envision someone just like this man--someone who is genuine and resourceful, exhibits flexibility when needed yet is firm and steadfast. I introduced myself to the principal, to which he replied, "We've been expecting you!" He called over one of his students and asked him to explain why he was wearing a blue garbage bag; a very different question than a simple, "what are you doing?" It was not a "show and tell" type of performance, but rather an opportunity to support the student as he engaged in higher order metacognitive thinking. The student explained the class was learning outdoor survival skills; the garbage bags were given to the students so they could work together to determine how they might use basic supplies to create a shelter and keep warm. He said that it was difficult at first because everyone was talking at

the same time and shouting out their ideas, but then they started to organise themselves into groups and divide up the tasks. The student spoke very eloquently about what he had learned and why he felt it was important, even what he would do differently next time. I later learned this student had been painfully shy when he had come to the school the year before. The principal explained through the unique programming at the school, apart from the traditional core courses, students have the opportunity to choose from many exploratory courses that interest them. These courses have proved to be a place where many students have found their voice and “come alive” at school. Such was the case for this one boy. This principal knew the story of this boy; in fact, he knew the stories of all his students. As we walked down the hallway, he greeted each student with handshakes and “high fives,” and it was so very clear this principal had created a learning community, not just a place of learning. The litmus test most teachers have about the quality of a school is found in the question, “Would I want my own children to attend this school?” For me the answer to this question was an “unqualified yes” and much of it has to do with the instructional leadership provided by the principal:

“Failure is not an option” is the most important sentence we use here at the school.

The most important thing is that we don’t lose any kids. This is what makes the school run and we do what we need to, [we] invent new things to make sure we reach this goal. (Principal interview, December 2014)

This principal took great pride in also having the privilege of teaching the students in his school. It was not a choice he was forced to make because of budget cuts or external pressure. He taught because he believed that at the heart of every instructional leader should be the desire to learn from and with his students and teachers. Every principal was first a teacher and should always consider [himself] both teacher and learner; “I knew it was important to understand what teachers were facing in their classrooms every day, so I could understand how to support the teachers and the students. Teaching was an easy choice”

(Principal interview, December 2014). [I was so impressed and inspired by the dedication this principal showed to his instructional leadership; I, too, have become sceptical of principals who feel that once they have reached a certain point in their career returning to the classroom is “almost beneath” them.]

Most important role(s) as an instructional leader. So, it is perhaps not surprising that when asked about his most important role as the instructional leader of the school, he responded with, “I have to live and have to show the philosophy. I have to look after and protect the learning environment so that that we don’t lose any kids” (Principal interview, December 2014).

Establishing goals and expectations. The way this school approaches teaching and learning was very different from what one might consider typical of a German lower secondary school, and the principal understood very well the obstacles he faced in leading his teachers through this change. Moreover, he sought assistance from others, both inside and outside his school, who would challenge his thinking and the existing traditional ways of working, to ensure the school would best serve the needs of their early adolescent learners:

I didn’t make the mistake of saying to them, ‘this is how we are going to do it.’ I had a framework in my mind of what I wanted for this school, even before I went and sought outside resources and support, but I had to rethink everything that we had done in the past. I knew this had to be something teachers felt we built together. I sent the teachers away with homework to consider what might be possible. Some, not all, came back with their own ideas. We started small, with a group of six teachers. I supported them. I didn’t micromanage them, though. These six teachers started developing new materials and new methods of working with the students. The others watched from the outside and started to think it was maybe not so bad. This is how

we grew the idea of the new school. This is why we have been successful. This is why we have reached our goal of failure is not an option. (Principal interview, December 2014)

When hiring teachers for his school and this new way of teaching and learning, this principal looks for intangibles that are not so easily represented by grades and accolades in university:

The most important thing is the motivation in the heart. I try to find out together with other colleagues in the interview if the chemistry between us and them and the school and this person will work. It is the most important. Is the person ready to go a long ways? Can they work with our philosophy? How they teach, how their marks were, I don't feel that is so terribly important. If somebody wants to come to our school by their own will, then we need to find out if the chemistry and if the spirit is there. Because then it functions. Our belief is that we can show anybody how to teach if they are willing and open and if the chemistry is there. One thing that is really important is what other unique things they bring. What are their hobbies, what are their other competencies that will add to the experiences for our students? (Principal interview, December 2014)

Ensuring quality teaching. At another lower secondary school, the current principal had worked in the school in various capacities for over 25 years. This type of long-lasting commitment to a school is not typically seen in Canada (and something I have grown to admire):

I have seen this school evolve in many positive ways during my time here. Having a sense of this history of a school is important; knowing what works well and what

needs to be improved because you have lived it yourself is really critical. (Principal interview, December 2014)

This principal is also a teaching principal and therefore has not been removed from the daily work of teaching and learning at his school. He credits this with helping him understand the world his students are growing up in and how this impacts the work of teachers and the role of the school, “Pupils have changed because they live in a digital age and we need to be aware of this and respond to it accordingly” (Principal interview, December 2014). While admitting he may not have all the answers related to questions about the use of technology and student-owned devices at school, he understands this issue needs to be negotiated carefully and addressed appropriately to ensure pedagogical practices at the school are responsive to the needs of their early adolescent learners.

In responding to a question about what constitutes a high quality, developmentally responsive learning environment for early adolescents, he was very clear about the important role brain based research should play in understanding the learning needs of students of all ages and consequently programming for them appropriately, “We believe you teach children, not subjects. This is the number one difference in our school” (Principal interview, December 2014). He described his beliefs related to the need for better pre-service teacher training and in-service professional development in understanding the areas of physical, cognitive, emotional and social adolescent development:

Do teachers know how our students’ brains work and how they work now is completely different than they did in year five or year six? Do we take this into consideration as a primary thing that is very relevant and is something that defines the relationship between the teacher and [their class]? Then perhaps not so much would

be left to chance in the classroom, hoping a lesson is right for the learners in front of me. (Principal interview, December 2014)

One particular line of questioning with this principal is most prominent in my mind, as I wanted to understand the ways his school addresses the unique developmental needs of their early adolescent learners. There were two elements from his response that are significant for me. One is the importance of relationships. At perhaps no other time in the development of children are relationships more important--relationships with peers and also relationships with teachers:

As a teacher, I need to understand how I can influence the relationship with my students. A relationship will take place anyway, because you cannot not communicate. Do I want the relationship to develop accidentally through the lesson, or do I want to influence the development of the relationship intentionally and professionally through the learning. (Principal interview, December 2014)

He referred to the work of Hattie (2011) and that he often imagines a camera mounted on the ceiling of his classroom. "You see yourself and your pupils through the lens of that camera and ask yourself, is what I'm doing productive" (Principal interview, December 2014).

Leading teacher learning and development. The second part of this principal's response to the question of how his school responds to the unique developmental needs of their early adolescent learners makes it clear how he views the students at this school, and how he has asked his teachers to view their students, "I see all of the students as being capable and ask that both teachers as well as the students themselves hold each other as capable" (Principal interview, December 2014). He believes that in this type of learning environment, even the student who struggles most with school will have a chance of believing that he or she can be a capable learner:

[We are] talk[ing] about pupils that have grown up in a system where they were never part of the decision making process. If you start early at age six or seven and tell them [school] is really about them and not us. And they see there are options and their voice is important. In terms of metacognition, why they do things is important, not just that they do things. So [this notion of students ownership, voice and choice] has to grow, because in a system where they have never learned to deal with things, the results will be as they are. (Principal interview, December 2014)

A vice principal at another school highlighted the importance of using data, in many forms, when making decisions about teaching and learning at his school:

It is undeniable what data tells us about how are students are doing and what adjustments need to be made. It is important to make sound decisions based on what we know to be true. Not what was true at one time or what we hope can be true. What does science tell us about useful conditions for learning? This is what is often missed. (Vice principal interview, December 2014)

Instructional leadership and early adolescent learners. Trust is a factor often overlooked when working to create a safe and caring environment where early adolescent development and learning can flourish. The principal of the Gemeinschaftsschule did things that perhaps would be considered unconventional; but, he served to show both his students and teachers that trust was going to be a prevailing value of the school. When new technology was brought into the school, after assisting his students with understanding how to read instructions and use some very basic tools, he entrusted them with installing new “beamers” (projectors) into the classrooms. The issue of shrinking school budgets seems to be a universal one, so when new furniture was needed, he put the task to his students and teachers to come up with a solution. And so they developed the idea of the school company.

Student designs were transformed into actual functional furniture, which students built under the supervision of the principal--and a very brave construction teacher. This furniture suited the students and their needs for space and movement. The designs were not something scrawled onto a crumpled sheet of loose-leaf paper, but proper design blueprints which students learned to create in one of the many afternoon exploratory courses. The furniture they create in some ways also reflects pedagogical beliefs of the school. "Coaching stations" have been built, housing a working space and two chairs. Students work independently on a learning task and when they are ready to present their learning to their teachers or are seeking assistance, teachers and students sit together in these "coaching stations" to discuss student work.

Now when students identify a need in their school (the most recent example was a space for them to relax), they come to the principal with their well thought-out and detailed designs. He has students source out supplies and create a working budget, and, after a strategic call to the bank, where the principal ensures the students will be given a "loan" after their ideas are presented, the principal works together with the appropriate teachers to see that students' plans come to life. The school also has a catering company run by students, an orchestra, a rock band, soccer school, outdoor education courses--all involving authentic learning experiences for students. Students choose to be part of these afternoon exploratory courses. It is not only about students learning to cook, build furniture or play in a band, but about all of the other learning that go along with acquiring these specific skills, such as cooperation, communication skills, entrepreneurship, resourcefulness, resiliency..., "I told [teachers and students] if there wasn't real learning going on in the afternoon courses, then we wouldn't do it" (Principal interview, December 2014).

Lessons learned. In my final question to instructional leaders, I asked them to share some lessons they had learned through their work they felt might benefit others. To sum up

their sentiments in one succinct phrase: Don't let ideological pressures, personal agendas and holding on tightly to "exaggerated accounts of days gone by" interfere with the real work of an instructional leader, which is to ensure the current learning environment is best suited to the needs of the learners and the world they face outside the walls of the school.

Images of Instructional Practices in German Middle Level Learning Environments

Philosophies on teaching and learning. Any preconceived notions I may have had related to very traditional methods of instructional practices in Germany were dispelled during my very first conversation with a teacher. I began the interview with one of those very big picture questions related to a personal philosophy about how early adolescents learn best. She articulated a very student-centred perspective:

For me there is a power in every student, but sometimes you need to look more intensively to find out where [this power lies] or have more time to find out about them. It's my intention to find all of this power in the child. This is the way I teach in the class, to find out where the power is in each of my students. I think there is no one way that [early adolescents] learn best. It is completely individual. Every student learns best in a special way; there are many ways to learn best. And I think the students learn best when they have no fear about it and they have responsibility for their learning in their own hands. So they don't do it for me, but they do it for themselves. (Teacher interview, December 2014).

Teachers are designers of learning. Designing learning opportunities and creating a suitable learning environment for her students, all with varying abilities, is something she and her colleagues have to work hard at to figure out. Traditional teacher training programs in Germany prepare teachers to work with a more homogenous group of learners, whereas in this school students are kept in mixed ability classrooms in lower secondary school. In

addition to being responsive to the needs of students, this new way of working with a heterogeneous group of students in the Gemeinschaftsschule has created a situation where teachers work together to plan lessons and create common resource material, also something not typical by German standards:

To meet the needs of students and to create material and lessons where all students could experience success entails a lot of work. We work together as a group of teachers and divide up the work. Maybe one teacher is stronger in math, they create the lessons and resources for math. Someone else might create the lesson packages for German. Each of us really becomes an expert in one area, so when my students are learning something in math and they just are not understanding it in the way I am explaining it, my colleague comes in to help the students and it also helps me. We work together as a team. (Teacher interview, December 2014).

To be responsive to the unique learning needs of all students as well as to develop more self-directed learners, teachers incorporate ways for students to have increasing levels of voice and choice in their learning:

We have periods of self-directed learning and [during] this time the students get to decide on what topic they want to work. They also decide how they would like to complete an exercise, for example, they decide the form they want to do it with a partner or with themselves, with a computer, in a group. So they have responsibility in what they will learn every day and I think for students this is a lot of motivation. The students work at different levels and that means that students may work at a higher level in math, but maybe a lower level in English. So, we think there is no competent or incompetent learner, it's just to find out where the individual strengths and weaknesses are. We do this with the learning packages and rubrics. And because

not all students do the same thing at the same time, [students] can use the time to do the practice exercises they need to do in order to improve and get the help they need.

(Teacher interview, December 2014)

Work students undertake is worthwhile. Periods of transition from primary to secondary school are known to be challenging times for many students. A Gymnasium teacher has seen how these times of transition can impact early adolescents' self-concept and self-efficacy as learners and has developed her own methods for supporting her students. She uses an open education model, based on the Montessori philosophy for students in grade 5 and 6:

Each student has a folder. Each week they get a sheet of paper listing the tasks for the week. There is one task they have to do and it is personalised to that particular student. Then there are other tasks they can choose from. Students work for three weeks on a certain task. All tasks are personalised so to fit into the student's Zone of Proximal Development. Once they have done the personalised tasks, then they get to choose from the range of Montessori methods. (Teacher interview, December 2014)

Using this model, she has found that all students can experience success early on in lower secondary school and can develop an image of themselves as competent learners.

At another lower secondary school, a grade seven teacher also sees the challenges facing students as they transition from primary to lower secondary school. A "learning to learn" course has been added to the schedule for all lower secondary students, albeit with different content at each grade level, to support early adolescents in their understanding of how to be effective learners and how to advocate for themselves in their learning, "We teach students basic skills of how to learn, how to approach a learning task, how to study, how to ask questions and organisation skills that will help them in their learning" (Teacher interview,

December 2014). Just as they teach students foundational skills of how to read and write, teachers have not taken for granted that students know how to think critically, reflect on their learning and adjust their learning strategies--all equally important fundamental skills of learning.

Assessment practices improve student learning and guide teaching. Methods of feedback and assessment used by the teachers demonstrate responsiveness to the developing needs of early adolescent learners ensuring the locus of control for their learning moves towards a more internal one:

We use rubrics and tables of competencies. Students correct their exercises themselves, so they get immediate feedback, right or wrong, do I need to practice more? They can ask for individual feedback from me whenever they need it. We have coaching times; they can put their names under my name and say I want to talk to you because I am having problems. They can take competency checks [or mini-tests] if they feel they want to know how they are doing. (Teacher interview, December 2014)

When it comes to final assessments of learning to demonstrate if students have mastered a concept, students decide when they will take the test. There are also multiple opportunities for students to show their teachers what they have understood about a topic, should they not perform at the level the teacher expects them to. To further support student agency in their learning, teachers have set up “coaching” times where students can sign up for a time to meet with the teacher to get extra support. All students have a learning log, which is used weekly to communicate with home, but also for students to set goals and reflect on the progress they have made towards their learning goals:

[Students] are really connected and invested in their own learning. They take a lot of ownership for their learning. They take all responsibility in their own hands. They do the work. They say this is my aim and this is what I want to work towards this week and this is what I have to do to reach it, this is how you can help me. (Teacher interview, December 2014)

A teacher at another lower secondary school expressed conflicting feelings towards his own assessments practices. He articulated that traditional forms of feedback and assessment are still very prevalent in German schools; and, he tries to combine both worlds by providing required grades and also using other methods he feels are responsive to the needs of his early adolescent learners. He provides them with a lot of immediate oral feedback about their performance as well written feedback in which he highlights previous performance alongside with current performance so students are able to see their progress, “I give students opportunities to discuss their grades and if they feel they have been treated unfairly we negotiate what can be done to improve” (Teacher interview, December 2014). Students in his class are given regular opportunities to provide feedback to him about what they are learning, the effectiveness of his teaching methods, as well as how students feel the class is working together as a group. An opportunity for students to provide feedback and express their opinions is something this teacher feels is a learning experience not only for his students, but himself as well.

Strong relationships exist. The role relationships play (teacher/student relationships, peer relationships and student connection to their learning) in all aspects of early adolescent learning is a factor another teacher ensures she attends to in a very intentional way:

Children learn best when they are in a secure and safe and protected environment without stress and anxiety. Learning is inherent, needs to unfold in a nurturing

environment. Teachers don't have to push as much as we think. We need to create opportunities for the unfolding of learning. (Teacher interview, December 2014)

The role of the group and group dynamics impacts the way this teacher designs learning for her students. Not only must she consider the individual learners within her classroom, but she must also balance this along with the needs of the group, "What can the individual students handle? What does [the group] need and what is [the group] ready for right now? With more diverse groups, it is more difficult to choose what they need now, at this moment" (Teacher interview, December 2014). She has been with this same group of students for three years and believes this amount of time is necessary for teachers to really get to know their students as individuals and as learners. The way she is able to support her students in their learning is much stronger now, after three years:

[The students] change tremendously over the course of the three years. Their character develops more as they grow older and their personality is becoming more complex, developing more of a contour. This is important for a teacher to know and to see develop. (Teacher interview, December 2014)

This extended period of time together also develops the class as a group of peers who support the learning of each other.

Teachers improve their practice in the company of their peers. While there are many fewer days devoted to district-wide professional development in this German Land, one Gemeinschaftsschule teacher has a very positive and realistic view about professional learning opportunities, "Every day is an opportunity for professional learning and development" (Teacher interview, December 2014). She explained that often teachers look to outside workshops and conferences as the only way they can gain skills to improve their

practice. She believes there are many talented teachers, along with her principal and vice-principal within her building, who are all excellent resources:

We discuss our work every day. This helps us learn from what we just did in the classroom, because we need to do to the best work for our students. We do have regular formal meetings. We open the classroom doors so teachers can come in. We team-teach when we can and visit as often as time allows, but not as often as we would like. This is very good professional learning. (Teacher interview, December 2014)

Lessons learned. The final question I asked all participants is if they had learned any important lessons through their work with early adolescents they felt others might benefit from. One Gymnasium teacher described the sense of responsibility he felt towards the community, the parents and the students, to prepare his students not just for the learning within his classroom, but also for the world outside. His biggest challenge, especially with a classroom of grade eights students, is to create interest and meaning in what they are learning, which is certainly easier in some subject areas than others:

When I am planning something, I always ask and try to work with a process-oriented model. I switch topics if my plan is not working. As much as possible I try to follow the needs of the class at that time. I am always asking, is this what you want to discuss or do you want to explore something else. (Teacher interview, December 2014)

I can still see the passion in the eyes of a Gemeinschaftsschule teacher and hear the emotion in her voice as she explained:

This is my school. It is just what I want to do. It is the way I want to teach. For me I think it is the best way to bring out the power in my students. But I think we have to go further, we can always go further. (Teacher interview, December 2014)

[Would you be surprised to know that this type of wisdom came from a fourth year teacher?]

What stands out most for me from my interviews with German teachers is that my notion of traditional instructional practices in Germany was perhaps rather naïve. What I saw in my classroom observations and what I experienced through my conversations with teachers is the overwhelming commitment each teacher demonstrated to meet the needs of their students. In sometimes unconventional ways, each teacher worked within their system of education and the means available to them to create a learning environment in which their early adolescent learners could experience success.

Images of the Student Experience in German Middle Level Learning Environments

After having the privilege of working with early adolescents for over 13 years, I should no longer be surprised that when asked, students can be so very articulate and insightful about their learning and their experiences as learners. Perhaps what I am actually more surprised by is the fact that far too often we leave their voices out of the very complex teaching and learning equation. If those educating today's early adolescents are to effectively create a partnership in learning with their students, the simple tool of asking for student feedback in something that ought to be used far more frequently.

Tell me about your school. I will also admit that I have a bit of a soft spot for those children of the middle years, so when I listened to one boy talk about the “dilemma” (his words) he faced in going to school every day, it is no surprised that I had to work hard to not let the tears welling up in my eyes roll down my cheeks. He said he felt tremendous pressure to do well in school and some teachers told him on a regular basis that he should transfer to

another school before his report card was issued. Yet despite this he came to school every day, desperate to please the very teachers [and it was my hope, to prove those teachers wrong] who showed no support of this 13-year-old boy as a learner. There were two things I took away from the conversation with this boy: one, how tremendously resilient children can be, and two, the important roles teachers play as mentors, trusted adult and sometimes “head cheerleader”--teachers should never forget these two things. “Sometimes teachers do not understand that the world is different for us now than it was for them; it seems sometimes they do not understand how difficult it is to be a student” (Student interview, December 2014).

Friendships and resiliency. Equally important is the role that positive peer relationships play in healthy early adolescent growth and development. Students at all four school sites in Germany discussed that in many cases friends were the most important things in their lives at the moment and that school provided them with the opportunity to see their friends. “It’s not just about being social with friends, friends can help you understand things in class when your teachers don’t explain things in a way you understand” (Student interview, December 2014). Students in Germany are typically kept with the same class for several years. Students I interviewed felt this was a positive thing and served to create a strong class, who for the most part supported each other. “Sometimes we may not get along, but it is more like when you fight with your brother or sister, when it is over most everyone knows each other well and tries to be good classmates” (Student interview, December 2014):

Next year, in grade 8, our class will probably be split up [after three years of being together] and this makes me a bit nervous. They tell us we can write the name of one friend down on a piece of paper and they will try to put us in the same class. But what about the rest of my classmates? (Student interview, December 2014)

[I wonder if the process of putting early adolescent learners together into class groupings should not be done in a more intentional way and looked at as a longer-term commitment than it sometimes is. In a developmental period when so much is changing for early adolescent learners, it seems as though it would be one less worry for them to know they will have a familiar group of peers through which to navigate not only their learning, but also their common developmental concerns.]

Positive peer relationships can certainly play a supportive role in early adolescent learning, however the opposite holds true as well:

Kids in the class understand things differently and at different paces. So if you ask a question in front of the class you might be laughed at. Better to ask after class so no one else hears. Some kids are really here to learn and some kids want to make a party out of everything. There is tension between the two groups and it can make things difficult in the class. (Student interview, December 2014)

Perhaps a surprise to many teachers, students at all four sites indicated they felt their classrooms were for the most part far too noisy for them to concentrate as much as they would like on their studies:

When your neighbor sitting next to you is noisy and you can't concentrate it is difficult. You like your neighbor but they are keeping you from your learning. You don't know what to do, because you don't want to get anyone in trouble. There is a time for discussion and talking, but kids don't seem to be able to know when it is good to talk and when it isn't. We need our teachers to help control this. (Student interview, December 2014)

It is surprising what insight we can gain as teachers if we simply ask.

What makes a great teacher? When asked the question, “What makes a great teacher?” students had no shortage of things to say. Again, some things may surprise teachers of early adolescents. Students clearly articulated they wanted teachers who cared about how they acted in class and held high expectations about their behaviour and their learning:

It is good to have teachers who can joke with [the class] but not too much, because then it is hard to take them seriously and things can get out of hand very fast. Good teachers are not too strict, but can be strict when they need to be to bring the class back in order. (Student interview, December 2014)

Another student offered the following:

Great teachers can take the most boring topics and make them interesting. It is like they are telling a great story and you just want them to keep going. These teachers can explain the most difficult things in a way that students understand and if you tell them you don't understand, they don't get mad, they just take a deep breath and work with you more until you understand. (Student interview, December 2014)

And yet, another student explained great teachers in this way:

I need teachers to give me encouragement because I am not so good at all subjects. So my best teachers are patient with me, but also push me to make sure I do my best and get my work done. They make me feel like I am a good student, even on my bad days. They are honest with me, and say well today you were screaming in class and that wasn't so good, but tomorrow you will do better. (Student interview, December 2014)

Most importantly, great teachers, “make the class a safe place to learn and don't make us feel anxious about making mistakes” (Student interview, December 2014).

Students also identified a significant difference in expectations, mannerisms and teaching style between teachers they worked with at school; this was difficult because students felt it impacted their learning and their comfort level in class. One final student reflection on the topic of great teachers, which should perhaps fall under the category of things teachers should not do, “I really don’t think it is great when teachers punish the whole class because one or two students were being foolish. This is not a great teacher” (Student interview, December 2014).

Engagement in and relevance of learning. I was very curious to hear German students’ views about what they were learning in school and the types of learning opportunities that made them feel like capable learners. Overwhelmingly students responded that they enjoyed subjects like physical education, art and music. When I asked what it was about these subjects they liked most, students responded that they enjoyed the opportunity to move outside of the traditional classroom setting to explore things and engage in activities that were not so heavily focused on reading and writing. One student explained:

I like it when I am able to do hands-on activities, like experiments in science or any other subject when I get to make something. I just feel like I can be more creative and maybe there aren’t so many right and wrong answers, but many possibilities of how to do things. (Student interview, December 2014)

Students attending the Gemeinschaftsschule had the opportunity to select from many different exploratory courses as part of the school’s afternoon program. The wide variety of courses available to students (rock band, construction and design, outdoor survival skills, be fit for life, soccer academy, cooking, etc.) gave them opportunities to engage in authentic learning experiences, often in non-traditional classroom settings:

I like the balance we have at our school. In the morning we focus more on traditional classes like German and math. In the afternoon we can rotate through many different choices and learn about many things in different ways. It wouldn't be good if it was all like the morning or all like the afternoon, but combining both is good. I think my focus is better this way. (Student interview, December 2014)

In Germany, there is a strong focus on foreign language acquisition. Students valued the opportunity to learn multiple languages and understood the kinds of advantages that having functional skills in many languages gave them, "Learning many languages is really important, because it is like real life. It will allow us to travel to many places and maybe even make getting jobs easier" (Student interview, December 2014). Students could also identify the relevance of core classes like German and math:

It is important that you speak well and you write well for people to take you seriously. Depending on the job you want, it may be important to know the rules of the language. You also need to understand math because it relates to money, basic things like do I have enough money to pay for this" (Student interview, December 2014).

As students moved into the higher grades they had more choices in the courses they took. Often these choices were influenced by family preferences; however, students expressed disappointment that the school schedule sometimes prevented them from selecting the courses they wanted:

In grade 7, I wanted to take both Spanish and music, but we weren't allowed to, there wasn't enough room in the schedule. I ended up picking Spanish, but would have really liked if they could have found a way for me to take both. (Student interview, December 2014)

Another student had heard from a friend in another school about the wood shop students could take courses in, “I would really like to have the chance to do those kinds of courses and work with my hands” (Student interview, December 2014). A student from the same school expressed frustration that a physics course focusing on hands-on experiments was taken out of their schedule because the room had to be used for another purpose.

Student agency in their learning. Students in one Gesamtschule are required to select one topic of interest each year they want to investigate as an independent study. The group of students I spoke to were all very excited about being able to choose something they wanted to know more about that was not necessarily connected to other topics they were studying in school. The choices this group of 13-year-olds made for their independent study projects were all excellent and showed they were very attuned to themselves as learners and the larger world. Based on the 2014 Olympics in Sochi, one student decided she wanted to know more about the politics behind the Olympic movement and what was involved in making a bid to hold the Olympic Games and the final selection of what city would host the games. Another student really enjoyed math and his independent study was related to the different codes and patterns found in mathematics like the Fibonacci sequence. Time was set aside in the students’ schedules to work on these independent study projects where they could ask for assistance from appropriate teachers. When the students were ready, they presented their work to a group of teachers.

Along the same lines of the independent study project, students at one Gymnasium have the opportunity to further investigate topics of interest that may not be part of the curriculum. Some use this as a means to improve their grades, while others simply use the opportunity to learn more about topics they are curious about. One boy spoke with great conviction about wanting to know more about a particular author, not because he needed to improve his grade, but rather he “just wanted to know.”

German students all agreed they would like to have more choice, not only in the topics they learned about (although they did understand the curriculum was in large part determined by the government) but also in their learning environment and how they presented their work to their teachers, “Sometimes our teachers let us use the outdoor courtyard to read or work in groups. I really like this. I wouldn’t like it all of the time, but I like that the choice is there” (Student interview, December 2014). Another student said that often teachers dictate how students will show they have learned a concept, usually a test or a written paper, and the whole class has to do the same thing, “We have this one teacher who says we can choose as long as all of the important points are covered and as long as we clear it with him first. This is really a good choice to have” (Student interview, December 2014).

Early adolescents in Germany typically study between 10 and 12 subjects during the school year, with 45 minutes being the most common duration of a class. When asked if they felt this was too much, too little or just right, one student responded:

I like that we study many different subjects. My family in [country of student origin] thinks this means you are a very educated person. Forty-five minutes is a good length for a class. After each class we have a break, even though sometimes we go back to the same teacher for a double block. (Student interview, December 2014)

Responses from all students I interviewed echoed the sentiments of this student. While twelve subjects would be large by Canadian standards, German student felt it gave them knowledge in a broad range of topics without becoming too taxing.

Use of technology to support student learning. Student responses to the topic of learning technologies were unexpected for me. Students all identified that they had access to smartphone, tablets, computers and other devices at home (some students with more

restrictions that others). At school, however, I found that the use of technology to support learning was approached with far more caution than what I have experienced in Alberta:

There is a computer room for us to use, but teachers think it takes away too much time from other learning. It may be nice to use computers a bit more often, but I don't really think it is necessary. Tablets are very expensive and maybe not all parents could afford them, so it wouldn't be fair for students to use their own in school.

(Student interview, December 2014)

Students gave no indication they felt they were missing out or at a disadvantage because technology was not used on a regular basis in their learning.

Sources of student support. The school environment and school community are two things that often come secondary to the teaching and learning that takes place in the classroom, yet it was very clear during my discussions with students in Germany the very important role these two elements play in their learning experience. To begin with, all four of my school research sites in Germany employ school social workers, to ensure the social-emotional needs of the students are being met. Students could all identify who the school social workers were and the important role they played in creating a safe and caring school community:

[Social worker name] is a very nice woman, she is that kind of teacher you are just very familiar with, you can always talk to her and she can get angry too and that was good because you know she just wants the best for you. I feel like she is part of our family. Sometimes when you have problems, even if it isn't about your teacher or your learning, you need to talk about it and get it resolved or it is really hard to focus on learning. So you talk to [her] and your head is more clear and ready for learning.

(Student interview, December 2014)

At another lower secondary school, the social worker works with the classroom teachers to identify areas of concern, be it classroom dynamics or issues related to bullying. She then creates a process to help the class become aware of the issues that may be impacting the learning of the group, and then together they determine how students can function better as a classroom community.

Feeling safe and secure at school. Schools clubs were identified by students as being a key determinant in the creation of a positive and supportive school environment. In many German Gymnasiums, clubs are offered after the end of a school day, typically at 1 p.m. This common practice of school clubs is also seen as supportive of the needs of working families. Several students commented that the reason their families chose to have them attend the school was the wide offering of quality school clubs. In other schools, clubs are offered as a means of breaking up the school day, and it is required that students select a minimum of two clubs and commit to attending them every week. In the eyes of the students however, being part of the school clubs is far from an onerous task:

Our teachers run the clubs and they act different from when they are teaching in the class, maybe a bit more relaxed. The clubs are very fun, but we also learn a lot, it isn't about silly games. Sometimes the clubs can be serious too, like in the big band orchestra we went to the castle [for a workshop] and played for music stars, and they gave us advice. (Student interview, December 2014)

Another student commented that clubs were great ways to bring students of the school together who share common interests in groupings apart from class groups:

During clubs I get to see other students who are not in my class, even students in different grades. I think we are a stronger school because of this. I think it maybe prevents a lot of bullying from happening too, because we all get to know each other.

You also get to be very proud of your school, because sometimes there are choir or band or sport competitions with other schools and you always want your school to be the best. (Student interview, December 2014)

Hearing the words of the students as they described their experience with school clubs, it is very easy to see how these clubs hold great meaning for students and serve to help them feel like they are more than only students in a class, but part of a larger school community.

Would you change anything? The final question I asked all student groups was if there was anything they would change about their school. Answers ranged from, “More lockers would be nice so I don’t have to carry so many books home every night,” to “More green space for students to play and hang out. A new parking lot for our teachers took away a lot of the outside space we had” and even, “Actually, I think my school is perfect, there may be little things, but those little things aren’t really important” (Student interviews, December 2014). Probably the most significant issue I heard from a large majority of the students related to the time their school day started. The school day for most students began at or near 8 a.m. For students attending full day programs, their school day ended between 3:30 p.m. and 4 p.m.:

Right now it is dark when we come to school, and it is dark when we go home. Many of us have to travel on the trains for a long time to get to school and back home, so our day begins very early from the time we wake up to the time we get back home. I would rather have shorter breaks during the school day, so I wouldn’t have to wake up so early in the morning. (Student interview, December 2014)

In terms of closing impressions of early adolescent learners in Germany, I would characterise them all as serious about their learning. Students came from a wide variety of

backgrounds and abilities, yet all articulated how much they valued their education and that any goals they had would only be made possible through hard work at school.

The Canadian Research Sites

The Canadian Context for Middle Level Education

Describing the system of education in Canada is akin to trying to describe the nation itself--complex; while perhaps difficult to pinpoint defining features, viewed by many on the world stage as strong and stable, yet on home soil, many Canadians struggle to articulate where the essence of country lies. I am one of those Canadians. That being said, I feel very fortunate to live, work and raise my children in Canada. I look out my window and see the Rocky Mountains; I breathe clean air and have clean water to drink anytime I turn my faucets on; my children walk to school in what I feel is as safe a neighbourhood as you will find in a large Canadian city; and, I am fortunate to have a good paying job doing something I love that also provides for my family. But--and perhaps the one "thing" I struggle with most--I would be hard pressed to explain what "the Canadian experience" is, because I do not actually believe being Canadian is a singular experience shared by all. We are such a diverse country, welcoming with open arms people from all nations as though they were our own. Canadians come in all shapes and sizes, colours and voices, and for the most part, we tend to make "it" work. In many ways I feel the same about describing the Canadian education system--education in Canada is not a singular entity. It is complex and diverse, dynamic--yet in some cases so very slow to change to reflect the world our students are growing up in.

There are ten provinces and three territories in Canada, and each is responsible for all levels of education and education policy in the individual province or territory, as afforded by the Canadian Constitution. Ministers of Education from the 13 provinces and territories, (some with no background in education policy making other than their own schooling

experience) form The Council of Ministers of Education, Canada (CMEC). This group meets to discuss policy and other issues facing the education system in each province and what impact these issues may have at a federal level. There is no indication this group aims to align the provincial and territorial education systems across Canada. There have been times, however, when the Ministers have identified common issues of concern and agreed to make these a priority for education in each province and territory, thereby elevating the specific issue to a nation-wide issue. The most recent example is mathematics. Western Canadian provinces and the northern territories agreed to collaborate on common curriculum development and went as far as to develop a common resource to support mathematics teaching and learning (CMEC, 2013). Unfortunately, other than the development and dissemination of one mathematics resource, along with limited use by teachers, little else came of the *Western and Northern Canadian Protocol for K-9 Mathematics* (2006) and the call for additional collaboration among this group.

In my home province of Alberta, there have been four different Premiers, or heads of government, in four years; and, with each new leader came a shift in direction of education in the province. Funding for education in Canada is determined by each individual province, although indirectly overseen at a federal level, and in today's uncertain economic times, oil prices and particular inclinations of government leaders tend to impact whether new schools get built or the state of labour peace with teachers. Education funding issues are rarely about teacher salaries alone, but extend to concerns over class size, adequate provisions for resources, workload issues and professional learning opportunities. This unpredictability in education funding is one of the biggest concerns facing educators today, and it led to a five week teacher strike in the province of British Columbia, ending the previous school year two weeks early and delaying the start of the 2014-2015 school year by three weeks, a total of 27 instructional days lost (British Columbia Teachers' Federation, 2014).

Each province has a Ministry or Department of Education, which is responsible for curriculum development, teacher certification and education policy. There are no standards or timelines for the revision of provincial curriculum; truth be told, some students are being taught the same curriculum as their parents had 25 years prior. Similarly, reviews of and often much needed updates to provincial education policy tend to carry the same timelines as election campaigns do. The structure of curriculum differs in each province and territory. In Alberta, curriculum documents are mandated at the provincial level to be enacted by teachers. In theory, there is little room for teachers to shape the mandated curriculum to the interests of their students or their own particular teaching strengths; although in practice, there is great variability in the way the curriculum is delivered in the classroom of each teacher. The number of hours of instruction also varies by province. In Alberta, the number of hours of instruction per year is 950 for students in grades 1 through 9 and 1000 hours in grades 10 through 12. There are guidelines for the minimum number of instructional minutes in core subject areas in grades 1 through 9; again, how this is carried out in individual schools varies greatly. In Alberta high schools, course credits equate to instructional hours; one credit equals 25 hours of instruction, and most core courses consist of three or five credits. By contrast, in the province of Ontario, guidelines come in the form of the minimum number of instructional minutes per week, which is 1500 for grades 1 through 8. And in the Northwest Territories, compulsory instructional time is 997 hours per year for students in grades 1 through 6 and no less than 1,045 hours per year for students in grades 7 through 12.

Alberta's newest Ministerial Order on the provisions for basic education in the province was signed in 2013. The previous Ministerial Order carried the date of 1998, there was another dated 1997, and before that 1994. As with revisions to provincial curriculum, there are no guidelines or timelines for revisions to provincial education legislation. The provinces and territories determine grade structure, and the age and grade in which school

begins and ends; whereas, grade configuration of schools is determined by local school boards. In many instances these configurations have little to do with any particular pedagogical philosophy and more to do with external factors like budgets and facility usage. The notion of a school board and school trustees varies as much within a province as it does amongst the provinces and territories. In the school board where I am employed, seven elected members of the public serve as school trustees. Their role is to represent the interests of the public in the education system; these seven individuals are given a considerable amount of power and authority with which to act. As with the provincial Ministers of Education, many trustees only experience in education policy development has come in the form of their own schooling experience or their role as parents of children attending school.

Teacher training is another element that varies as much within a province as it does between provinces. In Alberta, there are four major post-secondary institutions that offer teacher training programs. As a school based instructional leader, I can easily distinguish which institution my teachers have been trained in by the particular pedagogical stance they hold. My perspective is that philosophically the teacher training programs in the province are very different, resulting in tremendous diversity in the skills and background new teachers bring to their classrooms.

While it is often easiest to identify challenges and uncertainties in things we hold near and dear to our hearts, there are many strengths of education in Canada that are worth noting. On a very basic level, public education in Canada is free. The number of both private and charter schools is on the rise, attracting parents with lower class sizes, uniforms and classroom environments often similar to what they experienced as children--choice of school setting is enticing for many Canadian parents. Education in Canada is compulsory until the age of 16 in 10 of the 13 provinces/territories, and until the age of 18 in the other three. According to the most recent 2014 OECD Country Profiles, there is much to celebrate about

education in Canada: the school enrolment rate for children age 5-14 is 99 percent; 92 percent of Canadians age 25-34 attained upper secondary education; 57 percent of Canadians age 25-34 attained a tertiary education degree; expenditure per pupil on tertiary education is one of the highest among OECD countries; beginning teachers' salaries in Canada are similar to the OECD average (however Canadian teachers reach the top of the salary grid in 11 years, versus the OECD average of 24 years); and, compulsory instructional time for students in both primary and secondary education is above the OECD average (although some might question if this statistic should be seen as positive factor) (OECD, 2014a).

Results from the 2012 PISA tests, in which 21,000 Canadian 15-year-olds participated, indicated Canadian students ranked tenth in performance on measures of overall mathematical literacy (CMEC, 2013). The gap between Canada's highest achieving and lowest achieving students in PISA mathematical results is high, pointing towards inequity in educational outcomes. In measures of reading literacy and scientific literacy, as defined by the OECD, Canadian students performed well above the OECD average, being outperformed by only five countries in reading literacy and seven countries in scientific literacy (CMEC, 2013). The gap between the highest and lowest decile scores is on par with the OECD average, indicating greater equity of learning outcomes in reading and science. While Canadian students continue perform well on the PISA tests, there has been a downward trend since 2000, which has created discomfort among provincial education leaders (CMEC, 2013; OECD, 2014a).

Standardised testing at the provincial and territorial level is a highly debated topic and very much dependent on the government in power. I grew up in the province of Saskatchewan, where my high school teachers were trusted to develop and mark our final exams. These exams were valued in the same way towards university entrance requirements as provinces with standardised tests, marked by anonymous educators paid to do so. As

described above, when Canada is depicted in international measures of achievement such as PISA or TALIS, the country as a whole tends to do quite well. However, when these scores are broken down by province and territory, large variations often emerge in how these 15-year-olds, sampled from various schools across the provinces and territories have performed on the test. So, the question Canadians ask ourselves is if this one test, administered every three years, is a true indicator of the quality of provincial education systems--or is it simply another standardised test for educators, the public and politicians to either value or criticise.

Further, while on the surface, Canadian results in international tests of achievement would lead one to believe that both students and education systems are faring well, two notable cross-Canada measures portray somewhat different images. The Canadian Education Association's (CEA) *What did you do in school today?* study has, since 2007, surveyed over 63,000 Canadian adolescents and found that although 69 percent of students report being engaged in school, as measured through indicators such as attendance, homework behaviours, positive relationships with friends and participation in extra-curricular activities, only 37 percent of students reported being engaged in learning. The concept of being engaged in learning is measured by reported levels of effort, interest and motivation and perceived quality of instruction (Dunleavy, Willms, Milton & Friesen, 2012). What does this tell us? I believe there are many ways we can interpret this data, but as with any data, I always feel the most important questions come in the form of "so what and now what?" (How can we look at this data as one piece of an entire data story? In which context should this data be viewed? How can we use this data to determine next steps?) This data appears to indicate that many Canadian adolescents do well in school, despite not being intellectually engaged in their learning. Perhaps even more perplexing is that of the three indicators reported to have the most significant impact on academic outcomes, only one--effort--relates back to intellectual engagement. Attendance and homework behaviours are the other two indicators found to

have a positive effect on academic outcomes in the three core areas of mathematics, language arts and science. Dunleavy et al. (2012) explained, “Our purpose in this study was to illuminate the relationship between intellectual engagement and academic outcomes. Yet, in our study, students do well on school-based assessments without being intellectually engaged” (p. 6). This research finding has led to more questions than answers, calling into question current assessment practices and if the learning tasks students are being given require them to be intellectually engaged:

The results of our national sample of *What did you do in school today?* schools may indicate that traditional assessment practices are still prevalent, in that the three measures correlated with higher marks--attendance, effort and homework completion--are the very things that current research and policy say should matter *least* in determinations of academic success. Although these behaviours and dispositions contribute to creating the conditions for learning, they do not tell us what students know and can do as a result of learning. (Dunleavy et al., 2012, p. 7)

The “now what” for this important contribution to Canadian educational research, comes in the form of a question, “Where does this lead us?” (Dunleavy et al., 2012, p. 8). Dunleavy and his colleagues (2012) point towards current beliefs about assessment and assessment practices as the first places educators need to turn their attention to:

The concept of intellectual engagement resonates strongly with many educators because it represents the kinds of learning that they aspire to for all students. Yet often the most basic of structures in schools--in this case marking practices and definitions of academic success--can work against the emergence of practices that would support higher levels of achievement and engagement among larger numbers

of students. Existing models of assessment rarely measure these higher types of learning or the competencies they foster. (p. 8)

What did you do in school today? brought attention to the schooling experiences of Canadian adolescents and highlighted the importance of intellectual engagement. This was a key development in the aim to improve education outcomes for all Canadian adolescents. It is anticipated that the next phase of this cross-Canada study will further shed light on how to best integrate what research has revealed about adolescent development as well as what is known about effective instructional practices to create a coherent education strategy that will meet the needs of Canadian students in an ever-changing world.

In Canada, the National Alliance for Children and Youth is currently working to establish recommendations and policy to support Canadian early adolescents. Although the Alliance acknowledges the importance and many positive influences of the provincial education systems, it warns Canadians that the nation's early adolescents are at risk for experiencing a variety of healthy and physical problems (Hanvey, 2006). Louise Hanvey, author of the Alliance's latest report on Canadian children of the middle years, indicates that the middle years of child development are as critical determinants of well-being in adulthood as the first years of life are, "These children are laying down the building blocks for future well-being and participation in society" (Hanvey, 2006, p. 2). Through internally created measures, it was found that statistics are on this rise for Canadian adolescents exhibiting indicators of diabetes, obesity, aggressive behaviour and other physical and mental health issues (Hanvey, 2006). Using the index of vulnerability as put forth in the National Longitudinal Survey of Children and Youth, 29 percent of Canadian early adolescents are believed to be vulnerable to all factors that challenge their well-being. Both school and family are believed to be mitigating influences in this vulnerability; and, it is for this reason the Alliance calls on Canadian schools to support the growth and development of early

adolescents as learners and individuals with a commitment like none other before (Hanvey, 2006).

Is there anything that can be found in the systems of education in Canada that have contributed to or detracted from how the nation views or approaches early adolescent learning and middle level learning environments? This too is a complicated question to answer in a simplistic way; some provinces have been much more intentional than others in attending to the unique developmental and learning needs of early adolescents through provincial educational policy, resources and support. There are three key factors on a national scale, which I believe have impacted the advancement of early adolescent learning and middle level learning environments in Canada as a whole:

1. The absence of a national curriculum has placed the responsibility for curriculum development and the timeline for curriculum renewal on the individual provinces and territories. Some provinces develop curriculum at a departmental or ministerial level; others do this in consultation with provincial universities; while others approach it in an almost business-like model, awarding tenders to those with the best proposal bids. As mentioned previously, in some provinces parts of the curriculum have not changed in 25 years, calling into question the effectiveness of a policy of individual provincial and territorial curriculums in preparing Canada's youth for the world they will face outside the nation's schools.
2. The absence of national standards and regulations for teacher training has left individual post-secondary institutions to create teacher-training programs as they envision them. This has hampered the development of consistent, quality teaching in the nation's schools and has certainly impacted public trust in the

quality of education Canadian children receive. Further, only a very select number of Canadian post-secondary institutions offer teacher training programs addressing the specific needs of early adolescent learners and middle level learning environments.

3. The absence of a commitment on a national scale to using what current Canadian research has revealed about early adolescent growth and development as individuals and learners to establish middle level learning environments that will best support their needs. Without clearly articulated provincial/territorial and national philosophy and policy related to leading, teaching and learning in the middle years, education for early adolescent learners will remain inconsistent across Canadian schools.

Images of Instructional Leadership in Canadian Middle Level Learning Environments

As I began the interviews with my colleagues in Canada, I was curious to see what parallels I would see between their experiences as instructional leaders and my own. I soon found out that the Alberta context has certainly contributed to some of the ways instructional leaders in the province, myself included, approach their work. Moreover, I realised the context of my own work, within a large urban Alberta school district, has created a unique set of leadership demands and challenges not experienced by other instructional leaders I spoke to in both Alberta and Manitoba.

Philosophies about early adolescent learning. The Canadian principals, assistant principals and department specialist I interviewed for the purpose of my study were currently working in (or supporting) middle level learning environments of varying configurations. Prior to obtaining a leadership designation, all had experience teaching early adolescents in various grades and subject areas. I heard some very interesting descriptions about how each

principal, assistant principal and department specialist ended up working with this age group of students; for some, it was by chance, and for others, it was a choice. Just as I soon discovered in my own career that there was no other age group of students I wanted to work with, these individuals shared similar revelations. It was very clear from my conversations with the principals, assistant principals and department specialist that they cared very much about their early adolescent learners and wanted to create learning environments where these learners would experience success. It came as no surprise then, that these instructional leaders had very clearly defined philosophies related to leading, teaching and learning in middle level learning environments:

Young adolescence is a very special time of life that provides prime opportunity for learning and citizenship and character development. Teachers who desire and are prepared to teach middle years students, make a great and lasting impact on the academic, social/emotional, spiritual, and physical development of their students.

These middle years are the time that students understand more clearly who they are, what they can do, and what they can or may become. (Principal interview, December 2014)

One principal discussed the impact the AMLE's *This We Believe* philosophy had on him as a new teacher and feels this philosophy remains very relevant today. He works with the teachers in his school to create a learning environment that reflects the recommendations outlined in *This We Believe*:

My philosophy reflects the philosophy expressed in the AMLE resource *This We Believe*. It is one of those simple, yet hard things. When you look at the recommendations you say, "oh of course." But, when you try and coordinate whole school philosophy and practice to reflect what is in that document, it is more complex

than one might think. It is something we work towards every day though. (Principal interview, December 2014)

Most important role(s) as an instructional leader. The moment I asked this group of instructional leaders the question related to what they believed their most important roles as instructional leaders were, I could tell it weighed heavily on them--two principals asked if we could return to the question at the end of the interview. All individuals struggled with trying to compartmentalise their work into separate components and identify some components as more important than others. Ultimately, this group saw their work in a very holistic way; although certain parts of their work could be considered less “glamorous” than others, all contributed to the creation of a learning environment they were proud of:

I don't know if I could say the role of computer technician I often play is very glamorous, but I know that if I didn't work to solve the many problems related to technology that arise at my school it would prevent my teachers from doing some of the things they want with their students, which then impacts the learning opportunities available to students and so on. Things that seem small and insignificant often have a far-reaching impact. (Principal interview, December 2014)

So, when I reframed the question and asked about some of the most important things they do to support early adolescents in their leaning, we “got somewhere”--perhaps something a bit more tangible was needed:

I see my most important roles in supporting early adolescent learning in my building as the following: to see potential in every student, to help students see their own potential and that each and everyone of them matter, to see the best in their teachers, to support teachers and students in taking risks and knowing it is okay to make mistakes, to support students' families in understanding their children as learners

during this developmental period and to celebrate the successes, big and small, of everyone. (Assistant Principal interview, December 2014)

Another principal highlighted the importance of ensuring current research on early adolescence and middle level learning guided the practice at her school:

I believe that as the instructional leader of the school it is imperative that I focus on assisting my teachers improve their skills as teachers of [early adolescents]. To do that I must keep abreast of current [middle years] research for best practice, keep abreast of the strengths and needs of the individuals in the school, have a collegial relationship with staff that is respectful, professional and supportive. (Principal interview, December 2014)

In light of current research, much discussion has taken place in Alberta about the changing role of the school principal, focussing on instructional leadership instead of administration or management--and different from terms used previously to describe best practice in educational leadership, such as servant leadership and change agent leadership. Principals I interviewed believed the philosophy upon which instructional leadership is developed to be sound. They understood that being able to work in the in the capacity of “principal as instructional leader” versus “principal as manager” would have a significant positive impact on student learning and teacher development. However, the many competing demands of their job, left principals feeling as though the realities of their work prevented them from being the kind of instructional leader that system or district direction has said they should be:

I go to meetings where I am told about how important it is that I am in the classrooms with my teachers so I can understand what the teachers are facing and also so I can see things from the perspective of my students. I understand this. Yet in the same

breath, five new things are downloaded onto my plate, like reports I have to do and additional meetings that take me out of my school. I just don't know how everything can be fit in. (Principal interview, December 2014)

Another principal discussed how much perceptions about the role of the principal have changed over the years:

Education has trends just like everything else. Best practice for school leaders seems to come in waves too. You need to try and create a balance by holding true to what you believe about educational leadership and what you can do well as a leader and then also what the district is telling you the right thing is now. I am always trying to be better for those I serve in my school. I guess maybe it just goes to show that even after being in this profession for 20 years, I am still a work in progress. (Principal interview, December 2014)

[The question I posed regarding roles was never meant to leave these instructional leaders feeling inadequate, yet I cannot help but feel that inherent in the role of the principal is the sense that your work is never done and you can always do more.]

Establishing goals and expectations. Each principal, assistant principal and department specialist explained how they determined the goals, direction and vision for their schools in slightly different ways, using processes that were very much personal. After comparing their personal philosophies about teaching and learning with the vision and goals they had outlined for their school, the alignment that existed between the two was very clear. I was also curious to see how (or, perhaps if) the larger system goals that the principals' respective school districts had established were woven into their school-based philosophies. I examined district websites to better understand the system direction, which typically came in the form of some three-year or five-year plan:

I use school-based data, areas of concern my teachers and I have identified from the previous year, provincial curriculum and other things I may see coming down on us from the district to set the academic focus and direction for the school. All teachers help create this direction and understand why we have the certain priorities. Based on the needs of my teachers and my students I want the focus to be on teaching the curriculum in [early adolescent] “friendly” ways: integrated curricula, chances to explore, linked to life outside the classroom, appropriate level of challenge, differentiated instruction, relevant to the learners in their community or relevant to their vision for themselves. (Principal interview, December 2014)

Another principal explained that he likes to keep it simple when determining the direction for his school:

Sometimes I see plans that my colleagues have put together and I have a hard time understanding them. There are pages upon pages of goals and charts and well I just don't think that is necessary. Maybe it just isn't my style. I keep it to two or three clearly stated goals that really reflect the current realities of the school. Part of it is also ensuring the teachers and students feel they can be successful in those goals. It needs to stretch them, but also be attainable. (Principal interview, December 2014)

Although principals certainly understood and were aware of the district and larger provincial goals that existed, the direction they set for their school was very much based on the individual school context and their personal beliefs about what early adolescents need most to support their learning.

Ensuring quality teaching. Principals felt several factors contributed to the quality of teaching in their schools. “Hiring practice is important. Teachers who like [early adolescent] students and who understand or are prepared to learn about middle years have the greatest chance for success in the classroom” (Principal interview, December 2014). Giving

teachers time to collaborate, developing consistent school-wide pedagogical practices connected to current research on early adolescent learning, and the use of data to guide the work of teachers were other factors principals believe supported the development of a coherent, quality teaching program:

Teachers need time to work together. Collectively we can be so much better than if we try to go it alone. Whenever possible I try to give teachers time to collaborate. Sometimes I can work it into the timetable and when I can't I will bring substitute teachers into the school so my teachers have time together. (Principal interview, December 2014)

One assistant principal from Alberta discussed her mixed views on the topic of data, which she feels when used properly can be an effective strategy to inform and improve teaching practice:

I feel that sometimes we are on data overload in the province and I have to ask myself, "What purpose is this serving?" Data is one of those things that some people view as "the more the better." I think we always have to ask ourselves what really needs measuring and what is the best way to measure it?" Data comes in all different forms so we can't just be looking for percentages and pie charts. I believe the effective use of data to inform instructional practices comes when we view it through the lens, "so what and now what"? What is the data telling us? What are our next steps? If the only reason we collect data is to fulfill some district requirement, and do not act on it, then it really is a pointless exercise that takes up a lot of my time and my teachers' time. (Assistant principal interview, December 2014)

Leading teacher learning and development. Robinson (2011) identified leading teacher professional learning and development as the leadership dimension shown to have the

biggest impact on student learning outcomes. Principals I interviewed recognised the important role they play in the professional learning and development of their teachers, yet this was also an area they acknowledged not being able to always lead in the way they feel they should. One principal honestly described the many competing demands of his work impacting his involvement in teacher professional learning:

In my first years as a principal I used to plan out at the beginning of the year what I wanted to cover during each staff meeting and each professional development day. I laugh about that now and I wonder if I was really meeting the needs of my teachers. Even now, I think I have a pretty good sense of what areas my teachers need more development in, and what areas that we need to address as a whole staff. But then the demands of my job set in and to be completely honest planning a professional development day is sometimes the last thing I want to worry about. Sometimes it gets delegated to my assistant principal or lead teachers. In the end professional development is probably better if it is determined collectively, but it should be more intentional in the way it is collectively organised. (Principal interview, December 2014)

When asked if there was one particular area instructional leaders felt their teachers needed more development in, answers varied from increased subject specific knowledge to more broad concepts such as inquiry based learning and Response to Intervention (RTI):

I find it really depends on what type of teacher training program my teachers have gone through. Teachers who have gone through training to become secondary school teachers have specific content knowledge usually in one or two areas. Teachers who have taken an elementary generalist route, have general knowledge of the core subject areas (although I find most elementary trained teachers are literacy people). In

general though, teachers right out of university do not have the subject specific expertise they need to help their students find passion and meaning in things like Canadian history or multiplication tables. (Assistant principal interview, December 2014)

One area all instructional leaders identified as a need was for their teachers to have a better understanding of early adolescent development and how this impacts teaching and learning in the classroom. The province of Manitoba has, for several years, had a focus on transformation in the middle years, which has helped to advance teacher professional learning in the area of early adolescent learning. District level consultants are available to support schools during professional development days, assist principals in identifying areas of need in their schools, and provide teachers with appropriate resources:

We are lucky here in Manitoba, a lot of resources that have been developed to support middle school principals, teachers, students and even parents. At the government level there has been a commitment to creating better middle years learning environments. This is starting to be reflected in the universities training the teachers. They are giving them specific training on adolescents and their brain development and how teachers can use this understanding to their advantage in the classroom. Some teachers have this understanding of adolescents, some don't, and you can really see it in how the teachers work with their students and how the teachers plan lessons for them. This has been done in a very intentional ways based on a deep understanding of the kids sitting in front of them. (Specialist interview, December 2014)

Instructional leaders also felt new teachers had very little background training in pedagogy essential to the daily work of a teacher in a classroom with learners of diverse abilities--for

example, differentiation, scaffolding and curriculum modification. Other important aspects of a teacher's work, such as providing students with ongoing feedback to support their learning, writing report card comments and developing appropriate goals in a student's Individualised Program Plan (IPP) are not addressed adequately through most current university programs:

I know I have a lot of responsibility as the principal to support teacher growth and development, however it would be nice if new teachers came out with a better sense of everything they were going to face and all that was going to be thrown at them during their first years as a teacher. I don't envy new teachers, although we have all been there at one time. I think teaching is maybe more complex now than it was 20 years ago. (Principal interview, December 2014)

One Alberta assistant principal addressed the provincial mandate for inclusive education and the stress that is being put on teachers in the classroom:

Don't get me wrong--I believe that the fundamental principles of inclusion are important in the context of public education. The reality is that teachers, for the most part, are not trained to deal with such a diverse range of students with exceptional learning needs in their classrooms, nor do our current funding constraints allow us to devote more resources to supporting students and teachers in an inclusive setting. It isn't just about teaching assistants, because there are inherent challenges with that as well, but materials and assistive technology that might also support students with exceptional learning needs. (Assistant principal interview, December 2014)

All instructional leaders felt a tremendous responsibility to ensure their teachers had the pedagogical skills necessary to not just "cope" with the students in their classrooms, but to

create the type of learning environment all teachers want for their students. There was also a deep sense of never being able to do enough for their teacher and students.

Resourcing strategically. Principals had no shortage of things to say when the discussion turned to resourcing their schools. The recent drop in world oil prices will no doubt impact provincial revenues and principals speculated how this would impact provincial education budgets. The reality of doing more (and meeting the needs of more students) with less is one that principals in Alberta, and to some extent, the principals in Manitoba know all too well. Principals described very creative ways they have had to look at staffing their school, deploying teachers and securing resources in the wake of dwindling school budgets. Many principals have been “forced to return to the classroom.” [I have to admit this perspective makes me sad, because I have always felt working with students in classrooms is a privilege, not a burdensome chore.] I do, however, have a first-hand understanding of the increasing demands being placed on principals in Alberta. The numerous tasks related to accountability and district-based reporting are very real and draw principals more away from the role of instructional leader all the time.

The unpredictability of education funding in the Canadian provinces is something that weighs heavily on the minds of principals:

Can I tell you the time of the year that I dread? It is in the spring, right after the provincial budget has been passed. Then it seems everything starts to unravel. I get my working budget for the school and then I have to determine how many teachers I can afford, how many support staff, etc. And what I usually see is that the number of students in my school goes up, but the number of teachers I can afford goes down. Leadership books always tell you that change takes time, at least five years. At a school it is really hard to build a strong staff and see the plans you have for the school

start to take shape, because you never really know for sure who will be in your building to move the work forward. (Principal interview, December 2014)

[After discussing the topic of strategic resourcing with principals, I am quite certain the titles of entrepreneur, creative director and chief negotiator should also be added to list of leadership qualifications.]

Ensuring a safe and orderly environment. The final leadership dimension arising from Robinson's (2011) research I asked principals about concerned their work in ensuring a safe and orderly environment in their schools. Some principals felt this dimension related more to discipline and emergency safety plans, while others viewed it more as creating the appropriate context and conditions for teaching and learning to occur. Robinson (2011) views this leadership dimension as a combination of all those things a principal does (that are often not glamorous and take place behind closed doors) to ensure the most important work of teaching and learning can unfold in ways that bring out the best in everyone:

The basic and fundamental needs of health and safety need to be met first and foremost. In our setting we have found that when the students have food in their bellies and feel both physically and emotionally safe at school, they can then proceed with learning. Many of the inappropriate behaviours are avoided when the student can have something to eat such as an apple or cheese. When these students are fed with nutritious food, focus on what is happening in class is intensified. Along with this basic need comes the idea of a safe environment. We do some very intentional teaching around social emotional learning and regulation that has made a world of difference in making the school feel like a settled place. (Principal Interview, December 2014)

Lessons learned. The final topic of discussion with principals was one of “famous last words”--was there anything unique they felt they did to support their early adolescent learners or were there any lessons they have learned through their work that would benefit others leading the work in middle level learning environments? [After my conversations with this group, where timeless wisdom was shared with me, I feel as though I have been initiated into an exclusive group of instructional leaders.] It is important to let the words of these instructional leaders speak for themselves:

Learning facts are not important for this new generation of adolescents. Learning to become the best you can is important. Recognising that ultimately our goal as an educator is to help adolescents become contributing members of society. It is not our place to say what that should look like, however it is our place to encourage those under our care [teachers and students] to continually strive to improve. One of the most important aspects of this encouragement is to model it ourselves. (Assistant principal interview, December 2014)

Several instructional leaders explained that although the work of a principal is challenging and complex, there are always exceptional people who want the same thing as you do, to create the best possible learning environment for early adolescent learners. “Never be afraid to ask for help. You never know what treasures you will find” (Principal interview, December 2014). One Manitoba principal described the vast number of resources provided by the province to support teaching and learning in middle level environments, and was surprised by the small number of schools that take advantage of what is accessible in terms of expertise and funding:

Manitoba Education encourages middle schools to provide experiential learning and provides grants that can be used to develop resources that support experiential

learning, things like robotics kits and math manipulatives. They also have consultants who will come to schools to provide professional development that supports the fundamentals of middle years education, such as helping students be independent and competent learners; problem solvers, critical thinkers, responsible citizens of their classroom, school and community, and knowledgeable about themselves and the world around them. I don't know if people understand the huge impact this kind of support makes. (Principal interview, December 2014)

There were distinct differences in the ways the principals and assistant principals in Manitoba and Alberta, as instructional leaders, approached leading, teaching and learning in their schools. Manitoba's principals, with the support of provincial direction and resources to improve the learning experience for early adolescent learners, have a much more clear and cohesive sense of the factors that contribute to learning environments in which early adolescents will thrive. Based on conversations with instructional leaders of middle level learning environments in Alberta, there is a general lack of provincial and district direction related to early adolescent learning which has created a situation where each school is operating on its own, attempting to employ a variety of strategies and philosophies based on any number of factors. Far more consistency existed in the school philosophies, instructional programming, and practices used to support early adolescent learners in the Manitoba research sites than in the Alberta research sites. I attribute this to the intentional work that has taken place in Manitoba aimed at positively transforming the learning experience for all early adolescent learners.

Images of Instructional Practices in Canadian Middle Level Learning Environments

As an instructional leader in Alberta, who has also made the choice to remain a teacher and stay closely connected with the classrooms in my school, I feel as though I have a

good sense of the unique challenges facing both early adolescents and teachers of early adolescents in today's classrooms. Through my conversations with teachers in the provinces of Alberta and Manitoba, I began to understand that although they share many of the same experiences because of the nature of the early adolescent learners in their classrooms, there are many factors unique to the context of their schools and even more that are influenced by provincial direction (or the absence of direction) which impact their work. The questions I asked teachers centered on the five effective teaching practices identified in Friesen's (2009) research, viewed through the lens of their work with early adolescents in middle level learning environments. I had the pleasure of interviewing teachers with a broad range of experiences, from teachers within the first two years of their career to veteran teachers of 20 years; and, I know because of the insight they shared with me I will be both a better teacher and instructional leader in my school.

Philosophies on teaching and learning. The question about a personal philosophy related to teaching and learning is one I dread answering, for no other reason than I find it difficult to express in a concise manner my beliefs about and passion towards something I do not consider just a "job," but rather a "calling." So, in hindsight, I apologise for any unnecessary stress I created for my interview participants. I do think you can tell a lot about a teacher's motivation through the beliefs they express about teaching and learning--and whether or not, they are a teacher "by choice" or a teacher "by default." I have no doubt those teachers I interviewed were teachers because they could not imagine themselves doing anything else. The following are two excerpts from interviews with teachers as they "humoured me" and described their philosophy related to teaching and learning in middle level learning environments:

[A student's] personality is their personality. Don't try to change that. Instead focus on helping them negotiate their personality in the company of an ever-expanding peer

group. If students don't feel comfortable in their own skin, then learning becomes so much more difficult. I also try to bring out each student's unique personality and their individual strengths through the learning we do together in the classroom. Then I think together as a class we can work to celebrate each individual for who they are. (Teacher interview, December 2014)

One teacher recalled a difficult encounter with one student, which has forever impacted the way she approaches working with early adolescent students in her classroom:

I have learned to pick my battles with my [early adolescent] students. In one particular argument with a 13-year-old boy, he yelled, "You just don't get what it's like to be 13!" He was right, I don't. Things that seem trivial to me often matter most to them. So I find myself saying things like, "Please help me understand why you did this" or "Why is this so important to you?" I choose to see the best in each and every one of my students and I ask that they do the same with each other. There is often so much going on in their lives, some real and some manifested in their own heads, that I just try to be the calm in the middle of their storm. I find that even during times that can appear very chaotic in my class, the more calm I am, it's like students just feel like they can take a deep breath and settle in to their learning. (Teacher interview, December 2014)

Teachers are designers of learning. Teachers described different processes they engaged in when designing learning for their early adolescent students. I have often heard people attempt to relate a teacher's age or amount of experience to their personal style of teaching--newer, younger teachers are often viewed as more progressive, whereas more experienced, older teachers are often viewed as traditional "stand and deliver" teachers. I do not find this to be the case in my own school, nor did I find this to be true with the

participants I interviewed. There is frequently a close alignment between teachers' philosophies about teaching and learning and the methods they use to design and facilitate learning for their students. Such was the case with this group of teachers. Those teachers who tended to hold a more teacher-centered philosophy about teaching and learning expressed the need to keep the locus of control over learning in their classroom close to themselves. One grade 7 teacher articulated the following:

The students in my classroom need a lot of foundational knowledge. I do a lot of teaching of basic skills and knowledge, because if they don't have solid basic skills then the rest doesn't really matter. I also find that sometimes their behaviour doesn't really lend itself to more independent learning. If they can get a handle on this, there may be times when they can make choices about how they will present their learning to me, like a poster or PowerPoint. (Teacher interview, December 2014)

Teachers who described a more student-centered philosophy about teaching and learning also described practices for instructional design that incorporate more opportunities for student voice and choice:

I think that in order to create learning opportunities that are meaningful to students, not just worksheets and textbook work, you really have to know the learners in your classroom well, what makes them "tick." Then you look at the curriculum, you look at what is relevant to the students and what you can do a good job of facilitating as a teacher, and from there you try and create lessons that will work for your group of learners. Despite good intentions there are times when my formula fails miserably, but then when it does I try and use it as a teachable moment for students. See, I made a mistake, and this is how I am going to problem solve my way through it. (Teacher interview, December 2014)

One veteran teacher explained her beliefs about instructional design in the following manner:

I have been a teacher for a long time and one of the very liberating things that come along with this is that I no longer feel I have to control everything that takes place in my classroom. I choose to see my students as capable learners and I think that when we work together to design learning, it creates a better experience for everyone. I also consider myself to be an expert in the subject areas that I teach, so I think I can find ways for all students to get excited about or at least curious about social studies. I think some of the younger teachers don't have this comfort level yet. (Teacher interview, December 2014)

One teacher from Alberta has been working with the principles of the *Teaching Effectiveness Framework* (Friesen, 2009) in her school for the past two years and discussed the impact of having a school-wide philosophy to support instructional design:

How to design learning for students, especially pre-teens, was not a class I had in university, so as a new teacher it is really helpful to have something like the [*Teaching Effectiveness Framework*] to guide your work. In some cases though, it is a lot of strive for and I feel that I am not living up the standards in the framework. I want to be able to do things that the framework says are best for students like, connecting them with experts and getting them to engage in disciplinary ways of knowing and doing, but sometimes I don't feel like there are the resources available at the school to do this or that I don't yet have the expertise to facilitate. (Teacher interview, December 2014)

Work students undertake is worthwhile. Teachers from both provinces expressed they struggled with the task of developing students' metacognitive abilities through the learning tasks they designed for their early adolescent learners. Further, teachers'

perceptions of their abilities to engage students in authentic learning tasks, true to the disciplines they are studying was very much dependent on the teaching assignments teachers had--grade configuration of a school often determines if a teacher takes on a more generalist role, teaching all core subject areas, or a subject-specialist teacher, usually assigned to either a math/science or language arts/social studies role. Teachers of early adolescents within a kindergarten through grade 6 configuration commonly held generalist positions, whereas teachers who worked with early adolescents within a grade 5 to grade 9 configuration took on more subject-specialist teaching assignments. The very different experiences of teachers, determined by school grade configuration, are reflected in the following statements. A generalist teacher explained the challenges she faced:

As a generalist teacher, I feel like I am expected to be an expert in all subject areas, and I'm not. I am stronger in math and science, so I feel the learning tasks I create for my students in those areas are stronger and are more true to the disciplines of mathematics and the various sciences. The work my students do in language arts and social studies is very textbook and whole class oriented. It's not ideal and it is something I am working on, but it is the reality of my job. (Teacher interview, December 2014)

A subject-specialist teacher in a grade 5 to grade 9 school configuration described his work in this way:

I work with another teacher as a team. I am the humanities [language arts/social studies] part of the team and she is the math/science part of the team. We work pretty well together and try to integrate themes from the subject areas when we can. I feel kind of lucky I guess because I only have to focus on two subject areas and although I am still learning a lot about those subject areas, I feel it is manageable because I focus

on those two. At the same time I think when my teaching partner and I collaborate and plan, we learn about the subjects the other one is responsible for, so that works well. (Teacher interview, December 2014)

Regardless of their teaching assignment or grade configuration of their school, teachers felt early adolescents required a significant amount of scaffolding to be successful in their learning. “In my class, there would be a handful of students who were completely independent learners. They would do well without me! Ninety percent of my class requires some degree of differentiation to be successful” (Teacher interview, December 2014).

In terms of engaging students in higher order thinking skills, teachers felt that in a typical grade 6 or grade 7 class, where the range of abilities and developmental readiness in students is significant, it was misguided to believe students will engage in metacognition because of the task design only. Metacognition was something teachers felt they needed to guide their early adolescent students through in a very intentional way, until it became a more inherent part of a student’s learning process:

I find that until students get into late grade 7, or early grade 8, you really have to guide them in their reflection about their learning. What did you learn? Why is it important? What connections can you make? What would you do differently next time? It isn’t natural for most of them. (Teacher interview, December 2014)

The two teachers from Alberta spoke with great hope and anticipation about the new direction for education in the province as outlined in the Ministerial Order on Student Learning signed into legislation in 2013. The Ministerial Order, which focuses on the development of students in Alberta as “engaged thinkers, ethical citizens with an entrepreneurial spirit” (Alberta Education, 2013, p. 1), signals a large departure from previous Ministerial Orders. Teachers did express frustration, however, as the current

Programs of Study and supporting curriculum documents do not reflect the vision outlined in the Ministerial Order:

I think teachers are very supportive of the new Ministerial Order, but we are living in-between two worlds right now. The only curriculum we have right now doesn't align with the new Ministerial Order. What do we follow? The old curriculum has hundreds of specific outcomes; you can never get through them all. We have been told the new curriculum will have a maximum of ten outcomes per subject. So we feel that we are trying to make things up as we go sometimes. (Teacher interview, December 2014)

The teachers from Manitoba discussed how fortunate they felt in having many provincial resources available to specifically support teachers working in middle level learning environments. Further, both teachers had been part of the middle years program at the University of Manitoba, giving them course work and practicum experiences specific to early adolescents and middle level learning environments:

I feel my university program did a very good job in preparing me to teach middle years students; things like how to set up my classroom and design lessons in ways that are best for their developmental needs. Now, as a teacher, there are many resources from the province that I access to help me in my work with my students, like the *Integrated Learning through Inquiry: Planning Model* developed by the province. There is also a provincial network for middle years teachers in Manitoba that are in regular contact with each other for ideas and support. (Teacher interview, December 2014)

Now viewed as a legacy project, *The Interdisciplinary Middle Years Multimedia Project* created by Manitoba Education, aimed to support interdisciplinary approaches to teaching

and learning (with a focus on learning technologies) in the province's middle level learning environments. Both teachers referred to the website for this project, indicating it is widely used by teachers in their respective schools for ideas on interdisciplinary teaching units.

Assessment practices improve student learning and guide teaching. All four teachers identified assessment practices as an area they would like to develop further. They expressed feeling as though assessment in their classroom was often one-sided; students waited to be told if they had been successful in a task, and final grades came as a surprise. As with teacher approaches to instructional design, teachers' beliefs about assessment reflected where they lay on the continuum of teacher-centered versus student-centered approaches to teaching and learning. Teachers who adopted a more teacher-centered approach in their classroom described assessment practices that were more summative, with feedback reserved for the end of a task or the end of a unit, "I tend to give my students a lot of written feedback when they hand in an assignment or project. So the next time they have to do something similar they have an idea about what they can do differently" (Teacher interview, December 2014).

Teachers with a more student-centered approach in their classrooms described assessment practices that involved their students in the following ways: co-creating criteria for tasks, co-designing rubrics, on-going feedback loops which give students opportunities to improve upon their work, in addition to incorporating self-reflection and peer-assessment practices:

I really got a wakeup call when one of my students came up to me right before report cards were going home and asked if could tell him what grade he would be getting. He said he was so worried and wanted to be prepared for how his parents would respond to a bad grade. This was an excellent student, and yet in my classroom, he

did not have any idea of if he was doing well or not. I realised I had been holding on to the assessment process in my class too tightly and not letting my students be a part of this. I have worked hard to change that. It is still a work in progress, but I think if you asked any of my students now what grade they could expect on their report cards, they would be able to tell you. There are no surprises and there are always opportunities for “do-overs” and second chances. (Teacher interview, December 2014)

In light of ever-evolving report card structures in one Alberta district, the school of one teacher has chosen to implement a more on-going process of communication with students’ families about student learning. The teacher described the positive impact this new process has had on students and their families:

Two report cards per year simply do not provide families with the kind of information they need to support their child’s learning. And because our report card has changed three times in three years, parents really don’t know what to think of it any more. At my school we also send home progress reports, which separate student learning into the categories of growth, progress and achievement. We remove the grades all together and focus on descriptive feedback about what the student is doing well, what skills they need to work on and what the family and the school can do to support the student. When parents come in for student-led conferences, the conversation is entirely different. They tend to see their child as more capable, that everyone is a work in progress. (Teacher interview, December 2014)

Strong relationships exist. Teachers felt students’ relationships with each other were one of the most important factors impacting the early adolescent learners in their classroom. These relationships can have both a positive and negative effect; teachers

believed, “For some students, the relationships and being cool outweigh being a good student, not that the two are mutually exclusive, but the learning suffers” (Teacher interview, December 2014). One teacher explained, with a furrowed brow, “They are just so awkward around each other sometime, especially students in grade 6. I have to do a lot of work with my students around how to be a good classmate and appropriate friendships” (Teacher interview, December 2014). Another teacher saw her students becoming increasingly self-conscious and that having a negative impact on things like their willingness to ask questions in class and show enthusiasm for what they were learning, “It was like all of a sudden, looking good for their friends overtook the need to do well in school” (Teacher interview, December 2014).

Teachers articulated different views towards establishing relationships with their early adolescent learners. All agreed that trust and respect needed to be the foundations for all positive teacher/student relationships. Their opinions differed in how to best establish trust and respect with their students:

I guess I believe in what you would call positional authority. It sounds terrible when I say it--I make it very clear to my students that we are not equal, that my classroom isn't necessarily a democracy. It doesn't mean that I won't take their needs and opinions into consideration, because I really do and I know my students would say the same thing, but I have the final say, the final word. I have clear boundaries with my students. I don't feel that the best way to get students to respect you and like you is by asking them about the party they went to on the weekend. I want to get to know my students through the learning we do together. I have to earn their trust and respect, just like they have to earn mine and I think the most appropriate way to do that is by showing them that I am here to bring out the best in them and hopefully get them excited about learning. (Teacher interview, December 2014)

Another teacher described what she views as a more “soft approach” to working with her early adolescent learners:

I want them to know that I am here for them and if they have problems at school or at home they can come to me. I think that they need to feel safe with me so they can open themselves up to learning new things. It is my job to gain their trust and respect by being consistent and fair and showing them I care. Then I think they develop respect and trust in me. I also find that with early adolescents it is really important that they know you don't hold a grudge when they make mistakes, because they do a lot. When I have had to discipline a student, I end it with a hug or a “high 5” so students know whatever happened is over and we just start again. (Teacher interview, December 2014)

The relationship early adolescents have with their learning is an issue teachers believe is ever-changing, very individual and very contextual. Some students exhibit a deep sense of connection with and purpose in their learning; teachers have a difficult time pinpointing why this exists, other than some innate characteristic. Other students show this connection in pockets, which teachers believe is associated with the particular topic they are studying. Some students require a lot of coaching and support in order to connect to and find meaning in their learning, while other students, a teacher describes with disappointment, “...just never seem to find meaning in their learning. It is my job to bring out this joy of learning in each student, so I feel guilty when I just can't seem to reach a student” (Teacher interview, December 2014).

Teachers improve their practice in the company of their peers. The views teachers held about professional learning and collaboration differed greatly. Some teachers felt district-wide professional development days were “highly ineffective” (Teacher

interview, December 2014), citing, “we talk a lot about personalised learning for students, yet we don’t give teachers the same kind of personalised learning opportunities” (Teacher interview, December 2014). One teacher, who was part of her school’s professional development committee, felt that professional development days “...forced teachers to all be in the same room and discuss issues that are important to teaching and learning” (Teacher interview, December 2014). She went on to explain that the work of teaching is very complex and very time consuming, “sometimes you almost need an excuse to bring everyone together and if this is the only thing PD [professional development] days do, then I think it is not a waste of time” (Teacher interview, December 2014). One teacher from Alberta is part of a large and very diverse staff. She explained that with such a complex group of teachers it becomes difficult to meet the professional learning needs of everyone and wishes, “[teachers] would be entrusted with coming up with our own professional learning activities. Then it would be more meaningful” (Teacher interview, December 2014).

Teachers felt that ongoing opportunities to collaborate with teachers within their school and form professional networks with teachers outside of their school were of most benefit to them, because they were able to access timely, relevant support and resources from their colleagues:

As a pretty new teacher, I feel that every day is a professional learning day for me. I don’t want to criticise my university training, because it was very good in many ways, but maybe too general if I could make one criticism. It was general classroom management, general strategies to engage reluctant learners. Everything was general, aimed for the average student. Well, I don’t have just average students. I have a huge range. Having worked with teenagers for the past two years, I understand there was a whole piece related to child development that was missed in my university program. I rely on my colleagues in this school for advice and support. Our doors are always

open so if I want to go in and observe a lesson, that is okay. I have learned so much this way. (Teacher interview, December 2014)

Lessons learned. My last question for teachers asked them to share any lessons learned throughout their work with early adolescents that may benefit others in similar professional contexts. They had much to say, and a lot of it came in the form of, “I wish someone would have told me....” I hope through these final words shared by teachers involved in my study, readers will see the tremendous joy they derive from their work with early adolescents and, like these teachers, choose to see children of the middle years as a privilege to teach:

Teachers need to stop trying to find the magic bullet or the perfect fit. It isn't out there. Every “option,” every new theory about teaching and learning will have its up side and its down side. At the end of the day it is just you and your students and you have to figure out what is best for the student in front of you, not try to force a fit with something you read in a book that tells you it is the right thing. (Teacher interview, December 2014)

Another teacher wished he had paid more attention when he was going through puberty himself:

You cannot deny the very real changes happening to your students during puberty. It's like one day they wake up and their whole world has been turned upside down. Their bodies don't work the way they used to, they respond strangely to things they once considered normal--and friendships change. And this absolutely impacts their learning. Some days you just have to throw your whole plan out and deal with whatever it is the kids are fixated on so they can get it out of their system and move on. (Teacher interview, December 2014)

The impact of technology and social media on the lives and learning of early adolescents is significant. One teacher described her approach to using her classroom as a forum for students to become responsible digital citizens:

When I first started teaching, I never thought I would allow my students to bring their phones into my class, and the thought of using things like Twitter and Google as teaching tools was absurd. Well, I guess I am a big hypocrite, because all of these things play a huge role in the daily teaching and learning in my classroom. I realised that this technology is not going away and it is very much a part of the world the students are growing up in. So, I could choose to become the “cell phone police,” or I could decide to use my classroom as a perfect place for students to learn to use technology responsibly. I chose the latter. It is much more than using iPhone and iPads and fancy applications, students are using the technology and the language of the technology they are very familiar with to express themselves and their learning. So, I would tell others to embrace the technology, it is not going away, and use it in ways that make sense for you and your learners. (Teacher interview, December 2014)

This last bit of advice from a Canadian teacher is perhaps most revealing:

Never be afraid to make mistakes or admit you are wrong in front of your students. Number one, they will love that their teacher messed up. And number two, as their teacher you are the perfect position to teach them how to problem solve their way through mistakes, how to figure out where things went wrong, how to make better choices next time and how to make amends, if necessary. I think my early adolescent students are sometimes so afraid to make mistakes that it sometimes paralyses them. I try to show them by example to embrace mistakes as a part of the learning process,

that if we aren't making mistakes, we aren't taking the risks we need to grow as people and learners. (Teacher interview, December 2014)

Images of the Student Experience in Canadian Middle Level Learning Environments

The experience of Canadian early adolescents in school is as diverse as the nation itself. Some of the diversity can be attributed to the nature of early adolescent development, with a student's experience in schooling being very much dependent on his or her own developmental readiness. Another factor contributing to the diverse experience of early adolescents in Canada's schools is the very different approach each province/territory, each district and each individual school has taken with regards to its early adolescent learners. The two provinces used for the purpose of my study have significantly different approaches towards supporting and resourcing middle level learning environments; these approaches filter down to the school districts within the province and then on to individual schools. In the absence of a specific and clearly articulated philosophy related to leading, teaching and learning in middle level learning environments, these very critical components will be left to chance, with leaders and teachers doing what they believe to be best for their learners. Thus, the diversity of experiences that will be communicated through the lived experiences of the students I have had the privilege of speaking with would be expected. [I am not convinced that diversity of experience, and at times I would question the quality of experience, is what we should be aiming for in educating Canada's early adolescents.]

What makes your school a great place to learn? Canadian early adolescents responded to the question, "What makes your school a great place to learn?" as I had grown accustomed to from my experience as a Canadian educator. The standard list included their friends, their teachers, and time they were able to spend with their friends outside of class,

such as breaks between classes and the lunch break. I was pleasantly surprised with the stories two students shared, detailing what they like best about their school:

In this middle school I met my best friends and we have been friends for three years.

I didn't have a lot of close friends in elementary school. We didn't have a lot of freedom to meet other kids unless they were in our class, but in middle school we have lost of chances to meet new kids, kids who have the same interests as us.

(Student interview, December 2014)

Another student described the learning commons as his favourite room in the school and why he considers his school to be a great place to learn in:

Our learning commons is a bright open space. All of the furniture is movable and we can change things around to suit the needs of the students or the teachers. I love the big beanbag chairs and the tables and chairs that move up and down. There are 40 iPads and four laptop carts for students to use, a big screen interactive TV and a media room with a green screen. The learning commons used to be a dingy old library and you had to be so quiet when you went there; and, usually you only went to the library to take out books. The learning commons in always noisy, but in a good way, like noise that comes from kids working together and getting excited about things they have learned or done. If our teacher ever gives us a choice of where we want to work, I always come to the learning commons. (Student interview, December 2014)

For the most part students expressed being happy with their school, with the exception of one boy, who first asked if I was going to use his name in my research or tell his teachers what he said. When I answered "no" to both questions, his whole demeanour changed and he became very serious:

Is it okay if I tell you I don't think my school is so great? I don't hate it, but I just don't think everything is so wonderful. I feel that if you aren't what teachers think a typical teenager should be, all perfect and polite and happy, then you don't fit in here. I'm different, I dress differently and like things I know my teachers think are weird. I have friends here though that are just like me and we all feel that teachers judge us and treat us differently in class. Maybe it would be the same no matter where I went to school. (Student interview, December 2014)

What makes a great teacher? Canadian students' reported mixed feelings about their teachers, as expressed previously in an excerpt from a student focus group interview. Both boys and girls described experiences with great teachers and also with teachers who made them dislike coming to school, often within the same school and during the same school year. Students felt the unpredictability of individual teachers along with the large differences between their teachers was most difficult to handle. In only one school I visited, do teachers "loop" with their students, spending at least two years with the same group of students. In the other three schools students reported working with a new set of teachers each year:

I feel like you never know what you are going to get when you walk into a class with a teacher. Sometimes they are all happy and nice and other times they are like, "sit down and be quiet and do what I say." I guess I would rather have a teacher who is really strict all of the time, because then at least you know what to expect and what you need to do and how to act to make everything go smoothly. (Student interview, December 2014)

Another student explained her experiences with her teachers in this way:

I have six different teachers. About half of them are really relaxed and involve the students in a lot of decisions in the class. The other half are very strict, they stand at the front of the classroom and read from a textbook and tell us to answer questions at the end of the chapter. They sit at their desk the whole class and you feel like they are just waiting to jump on you if you talk. I feel like I have to change who I am depending on which class I am in and that is hard because being a teenager is hard enough to begin with. (Student interview, December 2014)

One boy in grade 6 described his two primary teachers in the following manner:

I think my two main teachers are a perfect pair. One is a hugger and one is a kick you in the butt teacher. But they work well together and I think they bring the best out in me. Some students respond better to teachers who are more soft and some need teachers who are more firm, and other students need both, depending on the situation. I need both, sometimes hugs and sometimes a kick in the butt and my teachers seem to know what I need so I can be my best. (Student interview, December 2014)

Canadian students used the following characteristics most often to describe what makes a great teacher: kind, patient, very patient, funny, fair, good listener, calm, is interested in their students and is excited about what they teach. One student told the following story about his favourite teacher:

I never used to like social studies. I thought it was boring, like only about wars and things that happened a long time ago. Then I got [teacher's name] for social. The first day of class she was dressed up in this costume and started telling us stories about the Renaissance. She walked around the room, stopped at the desk of every student and even stood up on a table during one part and started moving her arms like this. You felt like she was telling the story just to you. [Teacher's name] ended her

story, shouting, “Wake up people, this isn’t just about a bunch of dead people, this is about people who have shaped the world you live in today!” She was right. She is the kind of teacher that would do whatever it takes to make sure her students learn about social studies and also learn to be good people. (Student interview, December 2014)

Engagement in and relevance of learning. Canadian early adolescents study far fewer subjects than students of the same age in Finland and Germany. In Alberta, all early adolescents attending middle level learning environments study six core subjects, language arts, math, science, social studies, physical education and art/music. A minimum of 30 minutes of daily physical education is a requirement for all students, grade 1 to grade 9, in Alberta. Depending on the configuration of the middle level learning environment, the available facilities within the school and flexibility of the timetable, students may be given course choices under the umbrella of exploratory courses as they move into higher grades in their school. Students I interviewed described exploratory courses such as band, French, digital photography, cooking, wood shop, sewing, computer programming, drama, journalism and outdoor education. Unfortunately, students in Alberta are not required to learn a second language and schools are not obligated to offer second language instruction. The courses offerings available to students differed according to school and grade of student:

When we first came to middle school we didn’t have any choice about the courses we took. It is only in grade 7 where kids get to choose which I think is unfair. If we are all at the same school then we should have the same options available to us as the older kids. Even the clubs and sports teams at the school are only for the older kids, so the younger kids feel left out a lot. (Student interview, December 2014)

Students described their exploratory courses as where some of their most exciting learning occurs; along with core courses where they are able to do a lot hands-on experiments and project work:

I like all of my option courses. I guess I should because I chose them. I feel like the things I am learning in those courses are more practical, like how to design websites and how to cook. I also have a sewing option, which is my favourite because I want to be a fashion designer, so I really pay attention to all of the things my teacher tells me that I can improve on. (Student interview, December 2014)

Other students expressed frustration in what they felt was out-dated learning:

According to my mom, we are studying the same topics in grade 7 Science as she studied when she was my age. I know there are some basic principles in Science that stand the test of time, but come on, the world has changed so much and there have been so many discoveries and advances in science and so many other areas. So I think what we are learning should be more flexible and keep up with the changing times. (Student interview, December 2014)

One boy in grade 6 trusted that his teachers would ensure what he was learning was relevant, “I think I am too young and haven’t had enough life experiences to say if what we are learning is relevant. I hope that my teachers make that decision for me” (Student interview, December 2014).

Student agency in their learning. Opportunities for students to have voice and choice in their learning was more dependent on their individual teachers than on any apparent school or district-wide policies or philosophies, “I think some teachers just like to be in more control over what is happening in the class, so if everyone does the same thing at the same time, it is easier for the teacher to manage” (Student interview, November 2014). Some

students felt the amount of voice and choice available to them in their learning was more related to the subject they were studying:

In math and language arts we don't have much choice at all. We learn a concept in math and then answer the questions the teacher assigns to us. In language arts we have class novel studies where everyone reads the same book and we usually have to write about the same thing. The only place we get a choice is during silent reading, we can bring our own books. In social and science, we do a lot of projects about bigger themes. Then we have quite a bit of choice. We can work in groups or alone, we can choose what topic we want to do research on and we can also pick how we want to present our work to our teachers, like an iMovie or a website or poster.

(Student interview, December 2014)

Assessment and feedback that improves performance. Teacher assessment and feedback practices were described to me by some students as being frustrating; other students felt their teachers had very fair assessment practices and sometimes gave them opportunities to improve their work:

I get nervous around report card time, because I never really know what grades I will get. Some of my teachers don't give us back assignments after we have turned them in. We usually mark our tests in class, which can be embarrassing. The student who marked our test hands it back to us, the teacher collects the test and then we move on to the next unit. But what about if I get a bad grade, then I would like to know where I went wrong and what I can do better next time. (Student interview, December 2014)

A girl in grade 6 described how her teacher takes students' opinions into account when creating criteria for a task:

When our teachers gives us an assignment we sit down together as a class around the Smart Board and we all give ideas about what we think the criteria for the assignment should be and what the standards for 1,2,3,4 on the rubric should be. Sometimes our teacher has to give us a lot of help, but we are getting better at it. Then he takes all of our ideas and the next day he comes back and gives us a sheet with the criteria for the assignment on it and a rubric that tells us what level of quality we should aiming for. Our favourite rubric is the bulls-eye rubric because it is clear what we need to do to get a good mark. (Student interview, December 2014)

In terms of ongoing feedback students could use to make adjustments to their learning strategies or improve their work, students explained that their teachers used very different approaches. One student felt that if students wanted to improve their work, it was the responsibility of the student to negotiate with their teacher, “But you would have to do it after school when no other kids were around or they might think you were sucking up to your teacher instead of just wanting to get a better grade” (Student interview, December 2014). Another student described a similar feeling, that it was largely left to the students to ask for feedback and for opportunities to improve their work:

If I go to my teacher and ask for feedback about some work I have in progress, they will give it to me and I always use it to make my work better. Most teachers just don't build that kind of feedback into class for every student. (Student interview, December 2014)

The assessment practices of one particular teacher at the school were discussed at length by the students, wishing other teachers might take note of what this teacher did and the positive impact it had on the students' confidence as learners:

[Teacher's name] sits down in a conference with each of us. He brings out all of the work we have done in that term and we talk about what we did well and what was not great. Then he says, "Based on all of this, what grade do you think is fair for your report card?" And we kind of talk about it and negotiate it a bit. He always has the final say, but at least it isn't a surprise and you feel like you were part of it. If he says, "This is what I think your grade should be," and you don't agree, or want to do better, then he gives us back some assignments we didn't do so well on and we can redo them. (Student interview, December 2014)

Friendships and resiliency. Early adolescents in Canada responded in slightly different ways to the question about the importance of their friends in their learning. Whereas in both Finland and Germany, students overwhelmingly identified their friends as one of the best things about their schools and very important to their learning, Canadian students expressed mixed feelings about the role friends played in their learning, "There are positives and negatives about having your friends in class with you. Friends can sometimes make things less stressful, but if you are fighting with your friends then it's more stressful. Friends can also be distracting" (Student Interview, December 2014). Another student voiced frustration at what he felt was a deliberate attempt to separate groups of friends into different classes:

I don't know why it's such a big deal. They tell us to write the names of two friends on a piece of paper and we can be in a homeroom next year with one of them for sure. So it's hard because you can only pick two. I don't know why they wouldn't want students to be happy and be in a class with all their friends and not put pressure on us to pick some friends over others. (Student interview, December 2014)

Some students felt that as long as they were together with their friends in the same school and they had ample opportunity to connect with them throughout the day that being in the same classes became less important, “As long as I can see my friends during break, eat lunch with them and hang out after school, it doesn’t really matter that we are in all of the same classes” (Student interview, December 2014).

Sources of student support. While the importance that Canadian students from both provinces expressed in having their friends alongside them in their learning was mixed, they agreed on the important role friends played in their lives, “Sometimes I feel the only people who get me and get what I’m going through are my friends” (Student interview, December 2014). Unlike students in Finland and Germany, Canadian students do not have the same access through their schools to multi-faceted support teams. In only one school did students indicate they had a guidance counsellor available to support the students in their school; this unfortunately is the norm in most middle level learning environments in Alberta, less so in the province of Manitoba. However, students did express that there were certain teachers in their school they could trust and go to for help if they needed it. Typical of schools in Alberta is a lengthy process to access any professional support for students (paediatrician, psychologist, social worker or multi-professional team). Parents are often forced to seek outside support, at their own expense, if students require specialised support for their learning, behaviour or physical development.

Use of technology to support student learning. Another aspect of learning where Canadian students described very different experiences than their counterparts in Finland and Germany was in the use of technology in their learning. Students in both provinces explained with great detail (and enthusiasm) the technology available for their use at school, as well as the relatively open policies schools had related to student-owned devices in the classroom, “There is a wireless network that we can connect our phones to and then the school has tons

of iPads and laptops for us to use whenever we need them” (Student interview, December 2014). This was typical of what the other groups of students described about the technology in their schools. I was curious to hear if students felt this open access to technology had a positive or negative impact on their learning. Student responses were quite insightful and for the most part focused on the use of technology allowing them to access information and share their learning in ways they would not have been able to if their schools’ policies about technology were more restrictive:

I can’t say that 100 percent of the time I use my iPhone only for what my teachers ask of me, but I think that like 90 percent of the time students use their devices in the right way. We have a lot of computers at our school, but not enough for every student, so it is really good that they allow us to use our own phones and tablets. We all know the rules about what happens if we are using our devices inappropriately and I think no one wants to test the rules and push the limits, so we don’t break the rules very badly. (Student interview, December 2014)

Another student explained how using technology in his learning has made him feel more confident:

I never used to be a good writer, I used to find it really hard. Then I had this one teacher and she said, “why don’t you use your iPad and blog about it.” In some ways it was sort of a trick because she knew I liked to read and make blog posts, so instead of saying, “write an essay,” she would say “blog about it.” I guess it doesn’t really matter because in the end she got me to write and like it. I am good with technology so I often help my classmates use new programs and sometimes I even teach my teachers how to use different things or fix things they have messed up. When I use

technology it makes me feel like I am like other smart kids in my class. (Student interview, December 2014)

Another student honestly (and bravely) explained how difficult financial times for her family have not allowed them to purchase technology for her or her siblings. Being able to access technology at school helped her feel as though she was “on a level playing field” with her peers:

My dad got injured at work and lost his job. My mom now works two jobs just to keep everything going in our family. Our computer broke, and we couldn't fix it and we can't afford to have the Internet at home anymore. When I come to school though, there is all of the technology for me to use, so I don't feel like I am at a disadvantage. I can do the same research and create beautiful websites and make movies just like my classmates. (Student interview, December 2014)

Feeling safe and secure at school. Canadian students for the most part reported feeling safe at school, despite the fact that all students acknowledged there were known bullies in their schools:

Bullying is something that is always going to be there. I don't feel scared at school though. I think all of the talks and assemblies we have on bullying isn't really helpful. I think we should focus on helping all kids feel good about themselves and have more activities that bring the whole school together. Maybe then there would be no need for kids to bully each other. (Student interview, December 2014)

Students described things like fire drills and lock-down practices, which also helped them to feel prepared should any such event take place at their school. Contrasting schools in Finland and Germany, all Canadian schools I visited had some type of controlled entry into the building, often monitored by cameras and locked doors. Two schools required students to

wear visible identification at all times. Student attendance was checked each morning and afternoon, with phone calls being placed to parents or guardians should a student absence or late not be accounted for. In the words of one student, “You get used to the locked doors and making sure you are on time. In the end it is for our own safety” (Student interview, December 2014). Another student explained how her principal made her feel safe at school, “My principal is a very nice lady and is always smiling. She is out in the halls a lot and when I see her and she is smiling, then I know everything at the school is okay” (Student interview, December 2014).

Risk taking in learning. Did the measures described by students taken to ensure their safety and security at school translate into a sense of safety required for students to take the kind of risks in their learning that support their growth as individuals and learners?

According to students, not necessarily:

I’m not as comfortable taking risks as I would like to be. I don’t usually raise my hand in class unless I am positive I have the right answer and I usually pick the same way of presenting my learning to my teachers, either a poster or a PowerPoint. I guess I am worried that I may mess up if I try something new and I will look silly in front of my classmates. Even worse I could fail and get bad grades. (Student interview, December 2014)

Another student described the pressure he felt to do well in school and how that often prevented him from doing things outside of his comfort zone:

I feel pressure to do well, but a lot of that pressure comes from me. I don’t want to let anyone down, not my parents or my teachers. If I stick to certain things that I know I can do well, then I should be safe, I know I will pass and not fail; I just don’t want to

fail. I know it may only be grade 7, but I still think it is important to do well.

(Student interview, December 2014)

Would you change anything? I must admit that the final question I asked students is my favourite--I just never know what students will say and always feel I will have learned how to better meet the need of the early adolescents in my own school as a result. The number one change Canadian students indicated they would like to see in their schools was more choice--more choice related to the subjects they study, the teachers they have, the students in their class, the way their school looks, and even the books in their library:

I think that if our principal asked us about how we would design our perfect school, he may get some really good ideas. My school doesn't really look like much on the outside and when you get inside it isn't much better. Maybe people don't see it as very important, but I think that for kids, the way a school looks and feels, like if it feels welcoming, it really makes a difference. You should be proud of your school and feel good about it being a good place for you to learn in. (Student interview, December 2014)

One student giggled as she described some of the resources available for students in the school library:

There is a whole section in the library for encyclopaedias. Some kids don't even know what they are. Let's be honest, no one uses them, they look perfectly new. Kids today don't use encyclopaedias, we Google, we use Wikipedia. Then some of the textbooks we use in class, they smell so bad, the pages are torn, they have been written all over. In one textbook I have, someone signed his name and put the date 1987. That is almost 20 years old. We need newer resources. (Student interview, December 2014)

Students also described the need for their schools to do more to increase school spirit and build a strong school community:

Sometimes at the beginning of the year we have things like pep rallies, class competitions and teacher/student soccer games. Then this all fades away, but those kinds of things are so great. They bring the whole school together and we can celebrate being a [school mascot name]. I know learning is serious, but if we can have times when we are just a bit more silly, then I think it makes us more focused when it is time to learn. (Student interview, December 2014)

One boy in grade 6, with a fiery personality, was desperate to get in the last word during our interview, to which I happily obliged. [He would be happy to know I allowed him to have the last comment here as well.]:

One of my friends is in a school and they have something called “Genius Hour.” For one hour every week, students get to pick anything they want to learn about (it has to be appropriate, of course) and they do research and become like the school expert on that topic. Then they come up with some sort of creative way to show what they have learned and at the end of the year they have a “Genius Fair” at their school where all of the parents come in and students explain their project to everyone. I want to do that at my school. I also want to have a class that teaches me how to be a Lego engineer. (Student interview, December 2014)

I will conclude this section by going back to my initial thoughts about the tremendously diverse experiences with school that Canadian early adolescents describe. What stands out for me, more so than the 24 very different school experiences shared with me by the 24 Canadian students who participated in my focus group interviews, was the individual differences students experienced themselves, within one school year, at the same

school. I have still not been able to reconcile the challenges this type of inconsistency must pose for early adolescent learners. [As a country Canada is often celebrated as being a cultural mosaic, and while I can certainly appreciate this on many levels, I do not believe that mosaic is the kind of descriptor we should aspire to for the experience of Canadian early adolescent learners in middle level learning environments.]

Chapter Five - Emerging Themes and a Framework

What we find changes who we become.

- Peter Morville

Organisation of the Chapter

In Chapter Five, I begin by presenting a conceptual visual framework, which is a synthesis of key factors that have emerged through my interviews with instructional leaders, lead teachers and students as being significant in the establishment of developmentally responsive, intellectually engaging middle level learning environments. As described in Chapter Three: Methodology, using data analysis methods outlined in Charmaz's (2000, 2003, 2006) constructivist grounded theory, core categories from each case were examined in a cross-case analysis to determine those categories that were common to all three cases. The core categories I have extracted from the cross-case analysis are presented in a multi-layered and multifaceted framework (see Figure 1). Common core categories, which will now be referred to as "factors" (using the language of my original research question), have been grouped into four clusters: Cornerstone Factors, Synergistic Factors, Contextual Factors and Essential Factors. Then I explain the rationale behind the grouping of factors into four clusters, underscoring the importance of each factor in the context of early adolescent learning. Within each cluster one or more connecting factors are emphasised, uniting sub-factors under this umbrella. Key factors within each multifaceted cluster are further understood, connecting to the lived experiences, beliefs and values shared with me by study participants.

Conceptual Visual Framework



Figure 1. A Conceptual Visual Framework Representing the Factors that Contribute to Developmentally Responsive, Intellectually Engaging Middle level Learning Environments.

Proposed Framework

The intention behind this proposed framework is to highlight, for all who work with early adolescents in middle level learning environments, the many layers of factors that have emerged through my research as significant in the establishment of developmentally responsive, intellectually engaging middle level learning environments. It is my hope that this framework will be used to guide the work of instructional leaders, teachers, families, communities and school districts as they work to create learning environments that will support the unique developmental and learning needs of early adolescents. At the core of this framework are the students who, as my interviews have confirmed, we need to ask [instead of hypothesising with best of intentions] what it is they require most from us; our students are very eager to tell us. The practices of instructional design and assessment, essential elements in the daily work of teachers, are often seen as tasks of the teacher alone--and things that are “done to students.” What was very clear from my interviews with students is their desire to be more involved in all facets of their education. [This does not necessitate a swinging of the student agency pendulum 180 degrees in opposition from where it currently lies to find students involved in managing their schools, writing curriculum, approving budgets and hiring teachers...yet as I re-read the sentence, it does not seem completely absurd.] In so many aspects schooling, student agency and voice has been completely left out of any real decision making with regards to how their schooling experience unfolds--and, if student voice is celebrated primarily as being the choice between a poster or a PowerPoint presentation as a means of sharing their research, then I believe educators’ notions of voice, choice and agency are perhaps misguided. The creation of a learning environment that supports the unique developmental and learning needs of early adolescent learners needs to be co-created with the very individuals that will be most impacted--the students. For this reason, students lie at the centre of the proposed framework under the heading of “Essential

Factors.” In order to ensure middle level learning environments are responsive to the needs of early adolescent learners, the learners themselves can no longer be left out of the multifaceted learning equation. Transformation of middle level learning environments involves a complex interplay of many factors, perhaps none more important than the students.

Rationale Behind Key Factors, Cluster Groupings and Descriptions

During the analysis of data, recurring codes were grouped into core categories. Core categories common to all three cases became key factors, which formed the basis for the framework I propose. Multiple key factors emerged as significant, and while I made every attempt to pare them down, the story the data told was clear. Although I feel it is important to include all of the key factors identified through the cross-case analysis, I also believe, where possible, it is important to simplify this complex phenomenon while preserving all essential elements. The term “simplicity” seems to fit this outcome of my research study quite well--“Referring to an idea, or concept that appears to be simple to understand, yet is very complex in its true description” (Urban dictionary, 2014, para. 1). It is for this reason I grouped factors with the intentionality I have. The four clusters (Cornerstone Factors, Synergistic Factors, Contextual Factors and Essential Factors) bring together groups of factors into layers that provide the foundation for subsequent layers to build and expand upon. Key connecting factors within each cluster, such as “education as a fundamental cultural value” one of the Cornerstone Factors or “instructional practices” one of the Contextual Factors, illustrate what my research data has shown to be essential elements that support the transformation of middle level learning environments. These seven connecting factors emerged from the cross-case analysis as the seven core categories of codes common to all three countries. Sub-factors (shown as bulleted points in the conceptual visual framework, and found to be recurring codes in the data) identify specific characteristics and

actions found in developmentally responsive, intellectually engaging middle level learning environments.

The Cornerstone Factors of “education as a fundamental cultural value” and “pre-service, in-service and ongoing teacher development” are viewed as foundational and fundamental. This does not suggest however, that in the absence of these cornerstone factors, none of the subsequent layers of factors would be possible or attainable; simply, the data has shown the cornerstone factors set the stage for the other factors to unfold in a more intentional, supported and sustained manner. The Synergistic Factor of “instructional leadership” and the accompanying sub-factors describe features of instructional leadership that both support, as well as advance, transformation in middle level learning environments. The type of instructional leadership (and associated characteristics) described in the proposed framework has been shown through this research study to create the conditions for the contextual factors to exist and evolve. Contextual Factors of “instructional practices,” “school culture” and “engaging families and the community” reflect the unique context of each school--these factors need to be purposefully nurtured by all those supporting early adolescent learners within each school. The Essential Factors, with explicit focus on the students, are found at the centre of the proposed framework--this was done deliberately as the early adolescent voice [actually speaking with students and using this information and feedback to guide next steps] is often downplayed when establishing a learning environment that meets their needs. Students should be seen as the driving force behind everything that is undertaken in the name of middle level transformation; they need to be provided with real opportunities to develop agency in their learning. Taken as a whole, the factors and sub-factors presented in the framework represent what the data from this study indicate as contributing to the establishment of developmentally responsive, intellectually engaging middle level learning environments.

Cornerstone Factors

Education as a fundamental cultural value. It was not until I had the opportunity to step outside the educational contexts of my home district and home province that I was able to truly understand how deeply rooted education is in the culture of so many countries. “Education as a fundamental cultural value” is very apparent in both Finland and Germany, albeit stemming from different historical, philosophical and ideological roots. The socialist principles of Finnish society embrace education as a means of safeguarding a place for everyone. Similarly, the tiered system of education in Germany, although undergoing reform in some Länder, can be viewed as a way of ensuring students, aligning with their abilities and aptitudes, are prepared for the realities of a multifaceted workforce, thereby sustaining a strong German economy and society. It was evident in every conversation I had with instructional leaders, teachers and students in Finland and Germany that there was a different importance placed on education--something intangible, almost as if education was inherent in the DNA of citizenship. Even though I may have disagreed with some aspects of their beliefs, to say that education was sacred to those I interviewed in Finland and Germany would not be an exaggeration. This same cultural relationship with education does not exist in Canada. I certainly do not want to imply that education is not important to Canadian parents and Canadian children--I know this is not the case. However, as a nation we have not embraced education in the same way I witnessed in Finland and Germany. Education in Canada is generally viewed as a right afforded to all children, yet I do not believe we understand that with rights come responsibility. Far too often education in Canada is an afterthought. It is one of the first line items to be cut during difficult economic times and teaching is one of the last vocations to be acknowledged as “professional.” Generally Canadians do not see education as the gift that it is--there is an arrogance of entitlement that surrounds education in Canada. Education in Canada is not clearly understood as a cultural

imperative and like so many other things Canadian, education has become an incredibly polite and apologetic scapegoat for what society perceives as the failings of the previous generation.

Early adolescent learners as a key priority. It should come as no surprise that in order to affect real change in middle level learning environments, early adolescent learners need to be made a priority. I did not find this to be a school-based problem; I found principals and teachers to be genuine in their intent and desire to make the schooling experience for early adolescent learners more meaningful, and simply, just better. It is the failure to acknowledge early adolescent learners as a priority at higher jurisdictional levels that is troublesome and problematic. As highlighted in Chapter Two, the early adolescent years, while challenging in many regards, are understood to be significant in setting students up for success in later grades, post-secondary school and career paths (Belfanz, 2009; Wormeli, 2011). Further, current research from many corners of the globe has identified early adolescents as being at risk for disengagement from school, physical and mental health problems, and involvement in dangerous social behaviours (Haigh, 2004; Hill & Russell, 1999; Rumble & Aspland, 2009; Russell, 2003). Despite the tremendous amount of evidence indicating early adolescent learners require specific attention and support both in and out of school, with the exception of a small number of instances, early adolescent learning has not been put at the forefront of recent education reforms; early adolescent learners and middle level learning environments have not received the same widespread attention as other populations of learners. Perhaps long-held myths about dysfunctional “pre-teens” have left the public and policy makers believing early adolescents are not the group of learners most worthy of their time and attention. However, if we are not able to shift the thinking that has often left what happens to this group of learners to chance, the uncertainties facing our early

adolescent learners and those working with them in middle level learning environments will grow. I know this to be true without a shadow of a doubt.

Responsive legislation and policy. Understanding the intricacies and complexities of the work of instructional leaders, teachers and students, requires more understanding than one's own experience as a student would provide. [I am always surprised to find out how little experience, background and expertise those responsible for education in various government ministries have. To be a central figure in the creation of comprehensive and influential education policy based on the credentials of a successful career in copy sales or farming has been a contentious issue in Alberta for many years.] The most well informed environment for education in Alberta came under the leadership of then Education Minister, Dave Hancock; although he was a lawyer by trade, his wife is a school principal. I believe there was a different level of respect he showed towards education and teachers in the province that educators in Alberta have not experienced since he left office. Those with the power to create legislation and policy concerning education need to have some level of expertise in the field of education. Education is unlike any other field of work in that people often believe their own experiences as students bestow on them the expertise to make judgements about the work of teachers and what happens in schools. I am not sure people would use the same logic with a doctor, "Because I have been a patient, I now possess an intimate medical knowledge allowing me to diagnose illness in others" or with a lawyer, "I have often argued with friends and family and won, so these skills should make me an expert in complex litigation." Only when those making decisions that will significantly impact a generation of learners and teachers understand the complex work of teaching and learning (because they have been teachers themselves, or because they have felt the weight of responsibility a principal carries when entrusted with the care of an entire school, or because they appreciate the difficulty university faculties face in developing teacher preparation

programs, or because they too have mentored a group of pre-service teachers), then, and only then, will we know informed decisions about education are being made, for the right reasons.

Many examples illustrate that education legislation, policy and other associated regulations, such as curriculum and Programs of Study, are slow to change. Education policy is often a larger reflection of the ideologies of a particular political party in power than what research suggests is best for teaching and learning. Inherent in education policy should be a caveat that allows government officials and educators to collaborate to ensure that the current vision and direction for education is reflective of the society students are growing up in and responsive to the needs of the many populations of learners our schools systems support. To ensure the best interest of all those impacted by our schools is reflected in education policy and legislation, it would be well advised to include the voices of all key stakeholders. The student voice has for far too long been a missing component when policy impacting their experience in education is revised. During an interview, one Canadian student asked me quite inquisitively, “So, who decides what we do and learn in school every day?” (Student interview, December 2014). When I replied that it was a rather complex interplay between government regulations, district and school philosophies and also what his teacher thinks is best for the group of students, he threw up his hands and replied, “Well no one ever asked me! If anyone wants to know what is important for kids to learn, they should ask the kids” (Student interview, December 2014). He is very perceptive. Further, legislation needs to acknowledge that not all learners are the same. Thinking of education legislation and policy in a more responsive manner that is reflective of current research and the needs of today’s learners would lend itself to more effective systems of education.

Systemic commitment. The existence of a larger and more universal commitment to early adolescent learning and transformation in middle level learning environments was articulated by many study participants as being essential to supporting the work of

instructional leaders and teachers. This larger systemic commitment, in the opinion of study participants, paved the way for so many other factors to unfold. One Canadian principal explained:

The work of a principal is already complex, but when you know you have a provincial commitment to the middle years as a priority, you feel that you don't have to reinvent the wheel. Everyone is working together, moving in the same direction, wanting the same thing. (Principal interview, December 2014)

In the absence of a priority systemic commitment to early adolescent learners, instructional leaders and teachers felt they were left to their own devices, desperately hoping to do the right thing for their students:

So, no. No one has told me middle years are a priority and no one has told me that they aren't. But I see strategies out there for early learning and then for high school success and the middle years aren't mentioned. I know it needs to be a priority, but there is no larger system support, so at my school, we are just doing what we think is best for the students. It's hard not to think that it would be better if someone from the system just said, "this is what we believe about teaching and learning in the middle years and this is what we are going to do to achieve it." (Teacher interview, December 2014)

Systemic commitment sets the tone for those working with early adolescents in middle level learning environments, signalling to all that the work of leading, teaching and learning in middle level learning environments is viewed with the same intentionality and importance as the early years of learning or high school.

Resource and support effective people and practices. In order for meaningful and sustainable transformation to occur in middle level learning environments around the world,

there needs to be an intentionality with which schools are provided with the resources and supports needed to meet the needs of early adolescent learners. A clearly articulated systemic vision related to leading, teaching and learning in middle level learning environments is an important first step to providing the underpinnings necessary to understand where support and resources ought to be directed. When a system has not articulated what is believed to constitute a high quality middle level learning environment, there is the danger of an “anything goes” mentality. Along with this comes the risk of “throwing scarce resources” of money, time and people at misguided endeavours. When awareness exists related to the kind of instructional leadership, instructional practices and contextual philosophies important in the establishment of developmentally responsive, intellectually engaging middle level learning environments, then proper resources and support can be directed towards these ends. The Canadian province of Manitoba provides an excellent example of the positive impact a systemic vision related to middle level transformation has had on the kind of responsive supports and resources available to principals, teachers, students and families. Manitoba principals and teachers articulate the support they felt from the district and province in their work with early adolescents:

I am part of a middle years network in the province. We communicate regularly, share resources and receive support from the provincial consultants. I think this creates a situation where we receive quality support, and the resources we receive or sometimes create ourselves and share out are specifically targeted at this population of students. (Teacher interview, December 2014)

Many principals and teachers indicated that the issue of uncertain funding in education or funding directed at other populations of school-aged children (early learning, high school, special education, aboriginal education) posed challenges to the kind of learning environment they wanted to create for their early adolescent learners, “You start to get the sense that

maybe middle schools and middle school teachers and students aren't valued in the same way as other age groups. It's kind of disheartening" (Teacher interview, December 2014).

Resources and supports for early adolescent learners need to be designed specifically for them, by those who understand students' unique developmental needs and the needs of those teachers working with them every day. Trying to "retrofit" resources designed for younger or older learners can leave both teachers and students frustrated:

I was struggling to find material for my grade 7 social studies class. When I asked other teachers where I might find some resources the kids would really like, they said they thought there were some old high school textbooks in the library that I could use and just read it to the kids so they could understand the language and have them do fewer questions at the end of the chapter. I was kind of stunned. (Teacher interview, December 2014)

There are also examples in Finland where national curriculum supports have evolved to reflect the changing needs and demands placed on students as they grow and mature both within Finnish society, as well as the larger ever-evolving global society. In Germany, the Länder have made efforts to ensure curriculum reflects the world students are growing up in, with recent additions of media competency, understanding the connection between the subjects and the world of work and increased cultural awareness. Other countries such as Australia and New Zealand provide excellent examples of how the intentional direction of resources and supports to early adolescent learners and their teachers has made a positive impact on student learning and development (Haigh, 2004; O'Sullivan, 2005). A significant, yet perhaps seldom expressed, aspect of appropriately resourcing and supporting middle level learning environments is that principals, teachers and students feel their work is important and they are valued.

“Just right” resources and support become especially significant when teacher training programs do not prepare teachers for the unique developmental and learning needs facing early adolescent learners; this issue will be further described in the next section on “pre-service, in-service and on-going teacher development.”

Pre-service, in-service and on-going teacher development. Teacher preparation programs that provide new teachers with an understanding of early adolescence as a developmental period and the instructional needs of early adolescent learners are of utmost importance. The notion of specialist teachers, who have expert subject knowledge only, being effective in designing learning experiences for learners across the developmental spectrum can no longer be viewed as most conducive for teaching and learning. Similarly, generalist pre-service teacher training does not provide teachers with the subject expertise needed to connect early adolescent learners in authentic and meaningful ways to their learning. Neither approach to teacher training sufficiently prepares teachers to understand the unique developmental needs of early adolescents that impact their learning in various curriculum disciplines. In only one instance during my interviews did teachers indicate they had been part of university pre-service teacher training that focused on key aspects of early adolescent teaching and learning. These two Canadian teachers felt their university training had made certain they understood well the learners they work with in their classrooms every day:

To this day, what I learned in a class called the Psychology of Adolescence plays a significant role in the kind of learning tasks I create for my students. I am always thinking what did [professor's name] say about creating interest for adolescents in a topic. What did he say were the "look fors" to determine if students were disengaging from the learning? How do I get a group of grade 7 students back on track? Some of this I learn and refine every day I step into my classroom, but I had the foundational

skills even before I stepped foot into my classroom on that very first day. (Teacher interview, December 2014)

It is essential that all teachers working with early adolescents in middle level learning environments have the necessary preparation (pre-service training and in-service professional learning) that will allow them to create the kind of learning environment in which their students, as well as their teaching practice, can flourish. I heard very clearly through the experiences teachers shared with me that they wanted to serve their early adolescent students well and were prepared to do whatever was necessary to be better for their students:

If I am being honest, I would say that I feel overwhelmed sometimes. I have pupils will many different needs. My university training did not prepare me to teach such a diverse group of pupils. Many times I am using trial and error in my class and I know this is maybe not the best method, but I don't know a better way. I don't want to let my pupils down. (Teacher interview, December 2014)

I know there is more that can be done to ensure the education systems that serve our teachers provide better supports for them.

Develop teachers as experts in early adolescence. During the interviews, both principals and teachers articulated very diverse experiences in their teacher training programs. Most, however, expressed they were first trained to teach subjects, some with more specificity than others, and then trained to teach students. The experience of my interview participants is not unique, as I know this type of approach towards teacher training to be common--from my own experience and that of my Alberta colleagues. I believe this approach to be detrimental to the important work of teaching and learning in middle level learning environments. The data emerging from this study has shown that an important efficacy develops in teachers when they believe they have the skills and abilities to

effectively meet the needs of their learners. The key here is the word "learners" not "subjects"--teachers' self-efficacy came from knowing they had served their students well, not from feeling they had taught a subject well. Teachers need to continue to be supported in understanding their real work lies in teaching students, not subjects. Teachers who are experts in early adolescents first are better able to design learning opportunities that will draw their learners in to the wonders of the disciplines they are studying.

Professional learning reflects current research and current learners. Instructional leaders and teachers I interviewed had very diverse experiences and beliefs related to professional learning. Canadian participants had far more professional learning days built into the school year as compared to their counterparts in Finland and Germany; however, teachers in Canada expressed more dissatisfaction with their professional learning opportunities than teachers in Finland and Germany. Teachers in Canada articulated they often felt left out of any decision making related to the school-based professional learning opportunities:

The principal usually decides what he feels is important for us to discuss. When you have a large staff it is hard to meet the needs of everyone, so there is usually a big part of the staff that kind of shuts off during PD days. [They] bring their laptop and do marking or planning. I think it would be much better if teachers could give their input into what happens during PD days or better yet, teachers were allowed to go out and seek their own professional learning. (Teacher interview, December 2014)

Most teachers easily identified in which areas of their practice they needed to develop and expand their thinking. Principals' views of professional development for their staff were more often based on systemic goals and direction. Some teachers articulated that the

professional learning needs of individual teachers were sometimes at odds with what the "system" felt was needed:

I know exactly what I need to learn more about. It is about the very specific things related to my daily work with teenagers and also I need to become more of an expert in the disciplinary understanding of mathematics. I am not alone in this. The PD we often have is very general and about system vision. I sometimes walk out of a PD session at school and feel incompetent. (Teacher interview, December 2014)

Meaningful in-service professional learning must be ongoing, timely and relevant. Much professional development is viewed by Canadian teachers as something that happens on select days every year and, in the opinion of many teachers, is disconnected from the real work of teaching and learning taking place in classrooms. Teachers in Finland and Germany, where the number of days devoted to professional development were few, viewed professional learning as more of a daily collaborative occurrence, "I think professional learning happens every day, you do not have to go away to a conference or workshop. Your very own classroom provides great opportunities for your own learning" (Teacher interview, November 2014).

Middle level research advocates for responsive pedagogies that reflect the unique learning needs of early adolescent learners (Wormeli, 2011). Similarly, teacher professional learning should be thought of in a more responsive manner, both reflecting the needs of the teachers and of the learners they work with each day, as well as aligning with current research that examines best practice in middle level learning environments. Schools often have available to them a significant amount of data related to the learners in their classrooms that could be used in a more intentional manner to guide ongoing professional learning which would respond to very real issues emerging from school-based data stories.

Synergistic Factors

Instructional leadership. Almost every book about educational leadership has found its way onto my bookshelves, yet looking at instructional leadership as a Synergistic Factor has not been part of that discourse. By definition, a synergist is, “something that enhances the effectiveness of an active agent” (Merriam-Webster, 2014, para. 1) or “an agent that increases the effectiveness of another agent when combined with it” (Merriam-Webster, 2014, para. 2), further, a synergist is, “[an agent] that acts in concert with another to enhance its effect” (Merriam-Webster, 2014, para. 3). Admittedly, I am a bit of a science “geek”; however, there is something very intriguing about looking at the work of instructional leadership through the lens of a synergist. To illustrate this idea--instructional leadership (as the synergist) creates the conditions, acting as a catalyst [another science term I love] for an intense reaction to unfold, which is the work of teaching and learning in the classroom. Many labels have been used to describe the work of a principal (change agent, servant leader, transformational leader, charismatic leader, etc.), yet when I think about the image these labels create, all are centred around the traits of the leader, rather than the conditions they create for others. Effective instructional leadership cannot be an egocentric undertaking.

A second image of instructional leadership, again making reference to the sciences, comes to mind--this time involving the laws of physics. If we agree with notion of energy conservation, that the energy within the universe is constant and therefore cannot be created or destroyed only changed into a different form, as proposed in the first law of thermodynamics, it would seem reasonable to look at the synergistic quality of instructional leadership as a factor that creates the conditions within school for energy to be shaped in ways most conducive to learning. Now taking into account the Newton’s third law of motion, stating “For every action there is an equal and opposite reaction” (Newton, 1686), instructional leaders must be cognizant of the kinds of opposite reactions elicited by their

actions. Practical wisdom might suggest that forcing or pushing teachers towards a desired end may not yield the anticipated positive results. Actions of instructional leadership must never lose sight of the most important outcome, which is student learning. This necessitates the work of an instructional leader to be very “finessed”; making sure the necessary conditions are in place, bringing together the right people and producing an intentional first action allowing for the reaction of teaching and learning to unfold in the classroom. Instructional leadership as a synergistic factor--I think there is great potential here for a transformation of sorts in the way the work of an instructional leader is approached and viewed.

Clear vision and direction. Having been in the roles of both teacher and instructional leader, I understand very well the importance of a clearly articulated vision of a learning environment that supports high quality teaching and learning. I also understand the negative impact that can result from the absence of a clear vision and direction for early adolescent teaching and learning in a middle level learning environment. In all interviews with teachers from Finland, Germany and Canada, they expressed their desire to be good teachers, and to improve their teaching practice for their students, students’ families and also for their school principal. However, when instructional leaders are not able to articulate a vision for their school and the direction for teaching and learning, teachers are left feeling they are “trying to hit a moving target.” Playing, “guess what is in my principal’s head” has never served anyone well and truly distracts from the important work of teaching and learning.

I am drawn to a quote often attributed to Albert Einstein that reads, “If you cannot explain it simply, you don’t understand it well enough” (n.d.). This rings true for the important task an instructional leader has in articulating a clear vision and direction for his/her school. This does not have to come in the form of a multi-volume declaration, rather a clear vision that teachers can commit to (even if there is not consensus) and feel they have

the capacity to achieve; Robinson (2011) describes establishing clear expectations and pursuing priority goals as the improvement aspect of student-centered leadership. A clearly articulated vision for early adolescent learning should be viewed as an essential undertaking of instructional leadership and a sign that the instructional leader understands well what is needed to create a developmentally responsive, intellectually engaging middle level learning environment.

Visible and responsive. What immediately comes to mind when I think of “visible and responsive” instructional leadership is the story shared with me by a young girl from Canada who explained that her principal made her feel safe at school by being a constant presence in the school, greeting students in the morning and at the end of the day, patrolling the hallways during class breaks and coming into the classroom to share in the learning with students. I can think of no other role more important than an instructional leader who is a positive presence in all aspects of students’ learning at school. The responsive descriptor comes from an instructional leader who knows that in the world of a middle level learning environment, no two students, or teachers or even days can be viewed and approached in the same manner. This involves skill in being able to “read” individual and daily contexts to know what is most required of their leadership at that particular time with that particular person. One Finnish teacher gave the following example, which clearly illustrates the importance of responsive instructional leadership in middle level learning environments:

I felt my students were out of control and I felt could not handle them. I told my principal I was struggling but didn’t know what she thought about it. The next day, she came into my class and did not say anything, just observed. Later that day we debriefed what she had seen and what I felt. We talked about strategies; she told me I was doing a good job. The day after she was in my classroom again and we worked with the students together to discuss what makes a good group and how we can be a

team together. I think the students saw that she supported me and that it wasn't about getting people in trouble, but just wanting the class to be good for everyone. Things in my classroom became much better after this. I felt like I had my confidence back too. (Teacher interview, November 2014)

The work of an instructional leader is complex and comes with no instruction manual outlining what course of action to take given a certain situation. The story shared by this teacher demonstrates the responsive nature of effective instructional leadership and also the “just-in-time” quality--believing in teachers until they can once again believe in their own capabilities is a very powerful act of instructional leadership.

Courageous and unconventional. As demonstrated through my study interviews, instructional leaders who have been shown to affect meaningful and sustainable change in the learning environments for their early adolescent learners show courage, and at times a hint of unconventionality. These are characteristics I have given them, certainly not how they have described themselves. Sometimes transformation takes real courage, courage to reflect on what has been done in the school in the past, courage to ask why and then courage to say, “we can do better.” In all three countries studied, I observed schools which have a “history of grandeur”--a community mythology of being good schools that actually prevents them from becoming the kind of learning environments that best support the learning and developmental needs of early adolescents. To move a school from out-dated, deeply rooted philosophies and practices requires courageous leadership.

For an image of courageous and unconventional instructional leadership, I return to a delightful interview with a principal in Germany. His entire demeanour was so disarming; it was easy to see why his teachers and students thought so highly of him. As he gave me examples of courses his school offers to students and told me stories about the kind of

experiences and opportunities he sought to create for his students, all I could do was smile and hope my children would some day have the privilege of attending a school under the care of an instructional leader like this man. There is a part of unconventionality that requires creativity and “thinking outside of the box” while doing the right thing for early adolescents, because it is simply the right thing--apologies necessary for “bending the rules” come later on. Another part of unconventionality rests in not being afraid to ask and to try, and this principal had many examples of to share, “Sometimes we try things and sometimes they don’t work. But it doesn’t mean we stop trying, because now we have better information to make better decisions next time” (Principal interview, December 2014). There is one final element of unconventionality that is very important for instructional leaders, especially in middle level learning environments. If there was one quality I would use to describe all early adolescents learners, it would be “quirky,” and I would characterise truly effective instructional leaders and teachers of early adolescents in middle level learning environments in the same way. This quality gives middle level learning environments an undeniable energy and makes it difficult to not be drawn into the “quirkiness” of the students. Instructional leaders that possess a “hint of unconventional in their blood” fit well with early adolescent learners and have demonstrated through lived experiences shared during interviews their willingness to advocate for what they believe is best for their students and teachers:

It is extremely difficult to convince my [supervisors]. They don’t understand us and that is okay. Some people can’t stand my work, the way we work here. But we have the results that show this works for kids. So I am okay with it...Every time we need something it is a fight. A battle. Day in, day out. Year after year. A battle I shouldn’t have to fight, but I do. I don’t need them, but I need their money. It makes me tired. (Principal interview, December 2014)

Contextual Factors

Contextual Factors are those school-based practices, processes and philosophies that create a learning environment conducive to early adolescent learning. I do not intend, through the discussion of these Contextual Factors, to present them as a prescribed formula to be followed, or to indicate that the absence of one or more of these factors will result in a poor learning environment for early adolescents. Rather, I hope instructional leaders and teachers will use these Contextual Factors as they reflect on the current contextual environment within their own schools, and ask themselves, "Do our current practices, processes and/or philosophies serve our early adolescent students well?"

Instructional practices. When examining the instructional practices that best serve the needs of early adolescent learners, I return to an interview with a principal in Germany, who captured the vision of teaching and learning in his school with the phrase, "Failure is not an option" (Principal interview, December 2014). Instructional practices designed for the early adolescent learners in his building have at their core the purpose of ensuring all students experience success. When I asked teachers in all three countries about instructional practices they felt best suited the unique learning needs of early adolescents, they had different views, and I think this should be expected. Just as it would be difficult to find two early adolescent learners exactly alike, to identify one particular teaching or classroom management style or learning task as best serving the needs of early adolescents is inherently problematic. What I hope instructional leaders and teachers keep in mind when they consider the sub-factors under the connecting factor of "instructional practices" is that at the core of every instructional decision must be an intimate understanding of the individual learners they work with each and every day. As an undergraduate student, I remember one of my professors discussing the "art" and "science" of teaching. I am not sure I understood exactly what he meant until I faced my own students in my very first classroom. The "science" of teaching is

knowledge that comes from those theoretical elements related to pedagogy and the disciplines you are teaching. The “art” is knowledge that emerges from a true understanding of your learners and being able to create the conditions within your classroom, drawing on both types of knowledge, for learning to unfold.

Disciplinary expertise. I do not envy the position school systems often put primary/elementary school teachers in, asking them to deliver all subjects to students in ways that will inspire and excite their students. I believe this is an incredibly challenging task and feel fortunate I have never been placed in this position. In order to connect early adolescents to their learning in authentic and meaningful ways, a certain degree of disciplinary expertise is required. This goes beyond being able to teach students how to do basic computations in mathematics or carry out an experiment in science, and it necessitates that teachers be able to engage their students in the same kind of work and the same kind of thinking that those experts in the discipline do. What kind of questions does a scientist ask? What does a mathematician do when she encounters an equation she cannot solve? What tools does a geographer use to tell the story of a landscape? Without disciplinary expertise, it becomes a very challenging undertaking to engage early adolescents in this type of thinking. It also becomes increasingly difficult to support a very diverse group of early adolescent learners in connecting to and finding meaning in their learning if a teacher only has surface level understanding of the subjects they teach. Early adolescent learners in Finland, Germany and Canada are so perceptive, they “can easily spot a teacher” who is not passionate about the subjects they teach or does not have the depth of understanding in the subjects they teach to satisfy the curiosities of their students. I advocate for disciplinary expert teachers in middle level learning environments, as this creates the conditions where both teachers and students can most experience success, as evidenced in the classrooms involved in this study.

Expertise in early adolescent development. Teachers in Finland, Germany and Canada bring to their classrooms diverse experiences in pre-service teacher training programs and also very diverse backgrounds and expertise, all which impact the particular lens through which they view teaching and learning. This is something that cannot be controlled for. However, there is much that can be done to support teachers in middle level learning environments in becoming experts in early adolescents and the early adolescent developmental period. This, and disciplinary expertise, are two factors which impact the success both teachers as well as early adolescent learners experience in school. A mismatch between the learner and the teacher's knowledge of the subject and/or knowledge of the conditions that impact learning can have devastating effects on an early adolescent's engagement in their learning. Ongoing professional learning in the field of early adolescent development and early adolescents as learners is essential to ensuring that disengagement from learning during this developmental period does not occur.

Responsive instructional design and assessment practices. When teachers have both disciplinary expertise as well as expertise in early adolescent development and learning, it becomes easier to see which instructional practices best serve the needs of a particular group of learners (or an individual learner) at a particular point in time. This is likely to change the next day; however, when teachers approach teaching and learning in middle level learning environments through the lens of responsiveness, they are better able to adapt to the ever-changing needs of their students. Responsive instructional practices do not take on the form of an "anything goes" or "laissez faire" approach. Quite the opposite; teachers I interviewed in Finland, Germany and Canada experienced the most success when they made it clear with their students from the outset what they could expect from each other in their classroom learning community:

I think it is important for my students to know that I will treat each one of them fairly, but they should not expect this to look the same for each and every student. I tell them they are each individuals and as much as is humanly possible I will approach their learning, and consequences for poor choices, in an individual manner. We talk about things that are negotiable in the classroom and things that are not negotiable. I use the same process for each class I teach, and honestly, what I call the "rules of engagement" are slightly different for each class, because each class is different and each class responds differently to different situations. I am as flexible as I can be with students while still maintaining a calm and supportive learning environment.

(Teacher interview, November 2014)

A recent article in *The New York Times*, entitled "Raising teenagers: Protect When You Must, Permit When You Can" detailed the author's parenting approach for her two adolescent sons. This philosophy reflects the important lens through which teacher participants viewed responsive instructional practices in their middle level learning environments.

Authentic learning tasks. When students in all three countries described to me times when they felt really excited about their learning, they articulated learning experiences that were authentic, true to disciplinary ways of knowing and doing, involved elements of self-directed learning and were often hands-on/experiential. Although students did not use those very same terms they do in fact accurately illustrate the students' examples. Early adolescents are capable learners (far more capable than they are often given credit for) and they need to be provided with learning tasks that are challenging and offer them multiple opportunities to demonstrate their unique aptitudes and to experience success. Moreover, learning tasks for early adolescents need to be authentic to the disciplines they are studying, while also reflecting and connecting students to the world they are growing up in. Neatly put together posters, PowerPoint presentations with whirling animation or other examples of

"busy" work are simply not the type of challenging learning tasks that foster deep understanding for early adolescent learners.

Unfortunately in most of the countries studied, there are some examples of early adolescent students sitting in neat rows, silently reading textbook chapters and independently answering questions at the end, as their behaviour or developmental readiness has been deemed unsuitable for other types of learning tasks. This is a shame, and it is understandable that students would disengage or report not finding relevance in school if they experienced this kind of learning day in and day out. On the door of one of the Alberta classrooms, a teacher placed a large poster that reads, "Sorry about the mess, but we are learning here." A poster on the door of another classroom in the same school reads, "In this room, we don't do easy, we make easy happen through hard work and learning." Both serve as reminders to all who enter the room or pass by in the hallway that real learning is messy (the classrooms will not always be quiet and you likely will not find students sitting in rows) and involves hard work (allowing students to struggle and linger with a learning task instead of teachers jumping in to rescue them is a skill teachers in all three countries admitted they need to practice). In these classrooms learning and growth happen every day, sometimes in small ways, and sometimes in "take your breath away" ways. Early adolescent learners deserve to be provided with the kind of learning tasks that will create a vibration of excited energy in a classroom and will be the topic of dinner conversation at home for weeks--this is when real learning happens for early adolescents.

School culture. The one finding that emerged from my research as most surprising to me was the factor of school culture. "Learning together" (Principal interview, November 2014) was a simple, yet powerful, phrase used by one Finnish principal and encapsulates the factor of school culture well. Students in all three countries described in great detail the important role all aspects of school culture played in their experience with school. School

clubs, school sport teams, "spirit days," intramurals, an understandable school philosophy, access to support personnel, and even the way the school looked were all examples students gave of elements they felt enhanced their school experience, created a sense of identity and facilitated their feeling of being connected to a larger school community. These factors, which students identified as being so very important, are often an after-thought as most instructional leaders and teachers focus their attention on the learning attached to the curriculum inside the classroom. I understood much more clearly after my conversations with students (and to some extent instructional leaders and teachers) the student view that learning takes place not only in the classroom, but also in other settings within the school. Students felt it was sometimes through participation in the school band, basketball team or debate club, where they learned more about themselves as an individual person:

I play on the school basketball team and I feel very proud to represent my school.

Being on the team has shown me that if I work hard I can reach my goals. My coach is also my math teacher and he says that the hard work I have learned to put into basketball can work for me in math, too. (Student interview, December 2014)

Providing students with a rich program of extra and co-curricular opportunities was believed by students to increase their commitment to their studies. Part of the early adolescent developmental period sees the emergence of both a strong sense of social justice, along with an identity as an individual outside of their family. Effective middle level learning environments provide students with opportunities to grow, learn, express themselves and experience new things in a safe and caring environment. Creating a school culture that will support early adolescents in all of these things needs to be approached in a very intentional manner and seen by instructional leaders and teachers as a task as fundamental as ensuring quality teaching and learning inside the classroom.

Cohesive instructional program. I was surprised to hear Finnish, German and Canadian students discuss confusion at times related to what it meant to be a student in their school; they felt there were different expectations placed on them by different teachers. Standards for student behaviour changed depending on the time of year and the language students felt their teachers used to describe similar concepts across the grades changed regularly. Although they did not use the words “coherent, consistent and cohesive,” this is exactly what they were describing. Interestingly enough, their teachers often echoed the same sentiments:

As a staff I would really like us to work on being more consistent with our practices. I don't mean that I want us all to be clones, but for example, I teach language arts. When I teach my kids about story writing, I use the "stuck story" model. Other teachers in grade 7 use different methods and I know my students have said they learned a different format for story writing in grade 6. So I think this is confusing for them. If we could come together and say, this is the one method we will use to teach story writing and use common language for things, then I think it makes it easier for students and I think teachers can support each other better this way too by creating common resources and assessments. (Teacher interview, December 2014)

An important element of a cohesive instructional program is that it provides students with clear expectations related to their learning, their behaviour and what it means to be a student at a particular school. The notion of a “constantly moving target” makes it difficult for students to know what is expected of them and if they have attained those expectations. I am not certain schools in my study approach or view cohesiveness of philosophy and instructional program with the intent that it perhaps deserves. There is much to be celebrated about teachers having autonomy in their classrooms, however a cohesive instructional program does not need to take away from this autonomy--the two can coexist quite nicely. A

cohesive instructional program ensures there are clear standards, expectations and philosophies, supporting students as they navigate what can already be a confusing developmental period. Additionally, a cohesive instructional program can serve to support teacher learning, through collaboration and strengthening of practices towards a common end. Effective middle level learning environments do not needlessly complicate the lives of students and teachers, but create the conditions for both to experience success.

Flexible and responsive school processes. The factor of “flexible and responsive school processes” ensures that structures and processes involved in the daily operation of a learning environment for early adolescents are purposeful and responsive to the needs of the students. Flexibility allows for typical processes and structures to change should they no longer meet the needs of students, teachers and the school community. School processes and structures were found to be very contextual across the three countries studied; no two schools serve the exact same communities nor are comprised of the same learners and teachers. Therefore, school processes and structures need to be considered carefully and selected in a purposeful way, reflecting the unique context of each school.

Although processes and structures will vary among schools, based on the interviews I conducted for this study and my own professional experience, there are several key areas schools need to be cognizant of. The first is school start and end times. While it is understandable that factors outside of the immediate control of the school often dictate when school begins in the morning and consequently when it finishes at the end of the day, more needs to be done to advocate for a school day that better reflects the developmental needs (especially the sleep patterns) of early adolescents. It seems perhaps a bit foolish to continue to clash with sleep-deprived adolescents when there appears to be numerous solutions that would benefit all those involved. One bleary-eyed Canadian student expressed his frustration

to me through numerous yawns that his younger sister's school starts at 9 a.m. each day, while his school starts at 8 a.m.:

I have to get up before 7 a.m. to make sure I get to school on time. Some nights I have fencing practice or Hapkido and don't get home until 8 or 9 p.m. Then some days I have a lot of homework and I don't get to bed until 11 p.m., sometimes it is midnight before I can calm down enough to go to sleep. Then I have to get up so early again the next day. My younger sister never has any homework and all of her after school activities end way before suppertime, so I think the younger kids should start school earlier. (Student interview, December 2014)

The second key area seems to be value some schools place on very out-dated timetables or schedules. The notion of moving students around to a new class every 45 or 50 minutes, while common practice in many middle level learning environments, yields questionable results. Several Finnish, German and Canadian instructional leaders expressed concern with the notion that the beginning of learning should be signalled by a bell, with another bell, just 45 minutes, later indicating the end of learning. My own experience, along with the kinds of learning experiences students I interviewed in all three countries described to me as being engaging, has shown that deep engagement in learning often requires a more flexible approach to scheduling. Several schools in Germany and Canada used large blocks of learning time, where teachers negotiate with the colleagues how to best use that time to facilitate student learning opportunities. A more fluid manner of looking at schedules and timetables allows for learning to unfold logically, rather than be dictated by a bell.

The final consideration in the sub-factor of “flexible school and responsive processes” worthy of discussion is flexible student groupings. For some educators, this has a negative connotation, often associated with the streaming of children into ability groups. This is not

necessarily the case. There are many ways to flexibly group early adolescent learners to ensure their learning needs are not only being met, but also enhanced and extended. Teachers I interviewed in all three countries described flexible groupings based on interest, on special supports required, on readiness for a particular task or even on opportunities for students “to shine” and teach other students concepts. The key is for appropriate “regrouping” to become a norm in the school culture because relegating students to a particular group indefinitely can be viewed as pretty punitive. Flexible groupings allow students to connect with other students who share similar interests or those students they do not work with often; this contributes to the building of a strong classroom community. Teachers in all three countries described the opportunity to see their students working with different peers, under different circumstances, which assists teachers in understanding their students better. In several schools in Finland, Germany and Canada, teachers described working with colleagues to create flexible groupings with same grade students across several different classes. Teachers felt this was particularly helpful when certain teacher-student pairings were strained, giving the student an opportunity to work with another teacher with whom they may experience more success.

Access to multidimensional support services. Both teachers and students in Finland, German and Canada described the value they placed on having access to in-school supports for students. These supports came in the form of school counsellors, social workers, psychologists, school nurses, and even, paediatricians. Teachers in all three countries felt that being able to quickly access these professional supports made a significant difference in ensuring students' needs were met in a timely manner before student learning and relationships were negatively impacted. Finnish and German students who had access to such supports at school viewed these professionals as part of the school “family” and felt more comfortable independently asking for assistance when needed. In Canada, it is rare for

middle level learning environments to have access to in-school professional support from the medical and mental health sectors. The school guidance counsellor or resource teacher is often one of the first positions cut during difficult budget times. This is an area that warrants careful consideration in middle level learning environments to ensure the multifaceted needs of early adolescent learners are supported in a timely manner by trained professionals.

Intentional processes for student transitions. The transitioning of students, be it from one school to another or within a school, from grade to grade, is a process that must be treated in a very intentional manner. Students I interviewed in all three countries cited their first year in "middle school" as the most difficult:

Primary school was very different. You had one teacher and everything was much more relaxed. I had been in the same school with the same friends for many years. And I came to this new school and everything was new and I feel like I didn't fit in.
(Student interview, December 2014)

Teachers in all three countries also felt early adolescents' first year in a middle level learning environment was most challenging for them:

In some ways it is like the pupils are learning everything over again. Learning about how to make friends and learning how to learn again. In class, I see first year students to our school as being more hesitant in their learning and more unsure of themselves.
(Teacher interview, November 2014)

As with many factors discussed in this section, to identify one set of procedures to be used by all schools in the transitioning of all early adolescent learners would be naïve. Middle level learning environments must determine the best way to work with their primary schools to ensure the proper resources are in place to support the incoming class of students. Primary teachers have often had the opportunity to get to know their students over multiple years.

The information these teachers hold about each student is invaluable; principals in Canada and Finland described the importance of finding a way to capture and use this information in their middle level learning environments. Beyond events like information nights and new student orientation days, each middle level learning environment needs to consider how they will welcome new students, ensure these students feel accepted as part of a new learning community and determine how to provide ongoing support to new students so they are able to experience success in their new learning environment. Instructional leaders, teachers and students I interviewed in Finland, Germany and Canada described different processes used to support students during times of transition. Some schools focused more on ensuring they had information about students' academic profiles, while others focused more on team building activities. Across the three countries, I could not identify one format as more beneficial than the other; the most important consideration is that processes exist to support students during times of transition and these processes are revisited to ensure they are meeting the needs of early adolescent learners.

The transitions students make from year to year within a school also need to be carefully considered. Many middle level learning environments I had the opportunity to visit in Germany and Finland used the practice of what is often referred to in Canada as "looping," when a teacher stays with a class of students for multiple years. Teachers in Finland and Germany who had looped with their classes found it to be extremely beneficial:

When you have the same class for several years, you develop very good relationships with the pupils and also their families. More trust exists. When you start a new year with students, it isn't like you are staring over again, you feel you can kind of pick up where you left off. I know how to support my students so much better now because I have been their class teacher for three years now. (Teacher interview, November 2014)

Students from Finland shared similar perspectives:

I have had [teacher's name] for three years now and she is a very good teacher for me. She knows me very well as a student. I know what she expects of me and what she expects from the group and I feel we can move through things very fast because we all work so well together. (Student interview, November 2014)

The practice of looping is used much less frequently in Alberta, yet when we consider the important role trusting relationships with teachers and peers play in the learning of early adolescents, it is perhaps a practice that should be considered more carefully.

Engaging families and the community. For me, a statement shared with me by a principal in Finland best exemplifies this factor, “It takes a [connected] community to raise our children well” (Principal interview, November 2014). The work of teaching and learning is a complex interplay of relationships and emotions. The work of a teacher in a classroom of early adolescents can at times feel like it is the teacher, alone, against the world, yet it does not have to be; the life of an early adolescent learner in school can be confusing, frustrating and joyous, often all at the same time, yet this experience, too, can be made better.

Instructional leaders and teachers I interviewed in all three countries felt that some of the best success they had in supporting their early adolescent learners was when they approached it from a partnership perspective, involving school leaders, teachers, the student, their families and others in the community who know the students well. Early adolescents in all three countries frequently report, “...feeling alone and like no one understands me” (Student interview, December 2014). While it perhaps becomes increasingly difficult for adults to understand what it is like to “walk in the shoes” of early adolescents growing up in today’s society, educators can certainly create the conditions to ensure these learners feel they have an entire school community supporting them, wanting the best for them as learners and as

individuals. My interviews have shown that two key factors, communication with students' families and developing trusting relationships between the school and surrounding community, are important components in creating a network of support for early adolescent learners.

Ongoing and timely communication with students' families. My own personal and professional experience with early adolescents (as a teacher, instructional leader and mom), coupled with the views expressed by instructional leaders and teachers in all three countries, has highlighted the essential nature of creating a plan for ongoing communication between the school and families focussing on student learning. Some instructional leaders and teachers previously assumed that positive communication unfolds naturally throughout the course of the year, by way of report cards, school assemblies and other chance encounters. A principal in Alberta explained that it is very important to understand that this simply is not the case. Effective communication between the school and students' families requires effort on the part of all parties involved; it also necessitates commitment, ensuring the early adolescent learners see themselves as an essential component in a positive partnership between the school and their family--not a punitive relationship that seeks "to make their life difficult." Instructional leaders in all three countries expressed concern that in the absence of a process for ongoing and timely communication with early adolescents' families, crucial information may be missed; the student may fall behind in their learning, or other life circumstances may arise that could impact the student's learning and behaviour at school. The fears of being "too late" or having a student "slip through the cracks" are very real and may carry with them consequences damaging to early adolescents as learners and as individuals.

The instructional leaders, teachers and students I spoke to in Finland, praised the Wilma system as a means of ensuring all necessary parties had access to the information

needed to support a student's learning and life at school in a timely manner. Everyone involved in the learning of the student receives the same type of information, sent directly to mobile devices or email inboxes. Colour codes dictate the category and urgency of the information, and proper courses of action can be set in motion in a timely manner. It is equally important to communicate and celebrate the many positive occurrences in the lives of early adolescents at school--I believe the colour code in Wilma for a celebratory occurrence is teal green! Parents and students in Finland have quick access information about daily homework and upcoming assignments, along with anecdotal notes teachers may have included in the Wilma system about students' work during class. Students, parents, teachers and instructional leaders in Finland have embraced the Wilma system as a means of creating an effective support system for students, ensuring student learning is both supported as well as celebrated.

The sophisticated Wilma system serves Finland well; however, schools do not require access to a national computer program to create an intentional plan for communicating student learning with families. Interview participants in Germany and Canada detailed other creative ways schools have worked to involve students' families in their learning; student learning plans/logs, interim progress reports, student-led conferences and celebrations of learning, all have the intent of creating multiple opportunities to engage families in a partnership around student learning. One teacher in Germany who has worked with the same group of students for three years, felt fortunate to have positive relationships with the families of her students; this, however, did not come without hard work:

The first weeks of school I just started calling a few parents every day. It was most often about positive things about their child and sometimes parents were very surprised. Some told me they had never received a call from the school unless it was a bad thing happening. I continued to do this every day and soon, I had parents

calling me or emailing me to tell me things they thought I should know about their child. The parents just recently invited me to a class meeting and asked if there was anything they could do to help me. We work together very well now. (Teacher interview, December 2014)

Establishing processes for ongoing and timely communication with students' families should be seen as the work of everyone in a school, as it is a significant factor in ensuring early adolescents understand there is a network of people supporting their learning.

Linking school and community fosters trust. Long held myths about the early adolescent developmental period and associated negative behaviours have in many communities created adverse relationships between community members and schools. The communities in which early adolescents are growing up in provide tremendous opportunities for them to find roots and a sense of belonging. This can only happen however, if early adolescents do not feel ostracised from this community and the community finds ways to trust some of its youngest members. Communities hold a wealth of knowledge, expertise, experience and culture which can add to the richness of the student learning experience in so many ways. For many communities in all three countries, the school serves as a central gathering space for those of all ages and there exists many possibilities for connecting schools and community members in ways that can begin to foster the types of trusting relationships that will allow students, schools and communities to flourish. I return to an example shared with me by a principal of an urban Canadian middle school. The school is located in a high poverty neighbourhood, and for a long time there had been a sense of distrust, and in some cases fear, of the early adolescents attending his school:

They weren't bad kids at all. Many came from difficult circumstances and struggled to find their way. I just wanted the community to be able to see these kids and what

they could do in school, and then I thought they might think differently of them or at least not cross to the other side of the street when they saw my students walking towards them. (Principal interview, December 2014)

This principal set about to create opportunities for the community to be more involved in his school. He started out small, advertising in the community newsletter that once a month he would have coffee and donuts in the staff room, followed by a tour of the school for anyone who wanted to join him. “No one came that first month; the second month, it was me and one other person and a lot of donuts” (Principal interview, December 2014). He kept working at it, going into one of the community centres and speaking about his school to anyone who would listen. He also spoke to some of the police officers who were on the neighbourhood patrol and asked for them to spread the word. The next month, 15 people showed up at the school and the following month it was there were 25. “I thought, oh boy, what have I gotten myself in to?” (Principal interview, December 2014). He then started having students give the tours of the school, and slowly, as the principal describes, he could just “feel” the atmosphere in the neighbourhood begin to change. “We had people coming into the school, asking if they could volunteer to read to the kids or help out wherever was needed” (Principal interview, December 2014). He went on to explain a instant of concern and then embarrassment he felt when one day a big truck pulled up in front of the school, loaded with picnic tables and benches; he admits that for a second he thought his students had vandalised the furniture and it was being brought back to the school to demand that restitution be paid:

I went outside to see what was going on. It was a couple of retired carpenters from the community. They said their wives had been to the school for a tour and saw that the kids had no place to sit when they went outside during the lunch break. So, they

set their husbands to work making picnic tables and benches. I couldn't believe it.

(Principal interview, December 2014)

More and more opportunities began to open up to connect the community and the school's students in positive ways. Some individuals in the community decided to plant a community garden; and so one of the teachers took it on as a project, asking her students to determine what kinds of seeds would grow the best in their particular climate zone and what might be the most cost effective way to build and care for the garden. The students presented their work to the community committee in charge of the garden and were asked if they would be interested in helping to care for the garden. Students now volunteer at the local seniors centre, helping residents write letters to family members and friends, and they also go to the local public library to read at story time for pre-school aged children. The principal provided this last story as an example of knowing that the relationship between his school, his students and the community had changed forever:

It was the day of the grade 9 farewell for our oldest students. Kind of like a graduation ceremony. My vice principal came rushing into the office saying there was a problem in the gym. I kind of ran to the gym, expecting a big fight or something, but what I saw, to this day, still brings tears to my eyes. The gym was filled with people from the community who wanted to come out and celebrate these students. [My vice principal] said, "what are we going to do?" and I told him that we better get more chairs. (Principal interview, December 2014)

Whether it comes as more natural in some communities or has to be fostered through very intentional work, the importance of creating opportunities for early adolescent learners to connect in positive ways to the communities they are growing up in is an important factor in

middle level learning environments that support early adolescents as learners and as individuals.

Essential Factors

Students. “Without a shadow of a doubt,” the essential factors in any learning environment are the students. In Finland, Germany and Canada, students are the reasons schools exist, the reasons teachers have jobs and the reasons governments have ministries of education. It is, however, sometimes forgotten that all that is done in the name of education should have as its core the purpose of serving the needs of students. In all three countries, government officials, curriculum specialists, principals, teachers, all with good intentions, make decisions every day that impact the learners in their schools, yet often those decisions are made using “average data” or “perceptions about early adolescents” rather than actual feedback in the form of student voice. [I know I have been guilty of this in my own school. I am not certain I can count the number of times a decision was made at my school because “we” felt it was right for students, or the district decided it was the “next best thing” for teaching and learning.] Instructional leaders, teachers and district officials in all three countries have at their disposal such a wealth of information and insight into the needs of early adolescent learners. Going forward, the needs students articulate must be used in more intentional and purposeful ways to guide the work of teaching and learning middle level learning environments.

Real opportunities for student agency, voice and choice. Early adolescent learners in Finland, Germany and Canada clearly articulated the need to be provided with real opportunities for voice and choice in their learning. This goes far beyond selecting between two novels a teacher has already pre-determined or choosing to do the even numbered questions at the back of the textbook instead of the odd ones. Students explained that they

need real choices--choices that will develop their problem solving abilities and their metacognitive skills. Learning can no longer be seen as “we teach, they learn” or worse yet, something that is “done” to students. This out-dated view of teaching and learning does nothing to foster the kind of student agency early adolescents need for their healthy growth and development in our schools today and for their lives tomorrow. Early adolescent learners in all three countries possess the skills and abilities to be treated as partners in their learning.

Educators must not forget that an essential task for early adolescent learners is the development of self-efficacy so students become increasingly independent and self-directed in their learning. Early adolescents who experience success in school come to understand the locus of control for their learning lies very much within themselves. This aligns with ideas put forth in Dweck’s (2008) *Mindset*. Instructional leaders and teachers in all three countries articulated that effective middle level learning environments create the conditions for students to exercise increasing amounts of agency in their learning by providing them with opportunities to make meaningful choices and exercise their voice in important matters that impact their learning. This is done within a school environment that cultivates the development of the growth mindset, by encouraging effort and resiliency, rather than rewarding achievement only:

At the end of every term we celebrate our students, but not in the traditional way of awarding students with the highest grades. We celebrate students who have demonstrated growth, perseverance and resiliency, as learners and as developing young citizens. Everyone in this very big school comes together, and students receive certificates, get their picture taken and everyone claps. This may seem like a small thing, but it has resulted in a tremendous shift in the way our school looks at what it means for students to be successful and the kinds of traits we try to develop in our students. (Principal interview, November 2014)

When equipped with the tools to see themselves through the lens of a growth mindset, students truly hold the power to determine their fate as learners. This self-understanding cannot simply come from a single standardised test score, or a piece of paper filled with letters and percentages. Student agency and self-efficacy emerges from the purposeful and deliberate creation of a learning environment where the student voice is valued and encouraged as an essential component of the learning equation.

And now that I have heard from so many students in Finland, Germany and Canada and had the opportunity to reflect on the many things I have done as a teacher and instructional leader believing it was best for my students, the only thing left to do is practice the words of Maya Angelou, “Do the best you can until you know better. Then when you know better, do better” (n.d.). All those who work with early adolescents in middle level learning environments have some work to do.

Chapter Six - Conclusions

I will close my dissertation by sharing what I describe as, “the so what and now what”--what implications and recommendations for all who work with early adolescents in middle level learning environments have arisen from the study and what are the next steps in ensuring today’s middle level learning environments are responsive to the needs of early adolescent learners.

Nothing but the Essentials

I picture that I have been asked to share my research findings at a conference; and, at the conclusion of my presentation someone, who identifies herself as a new principal of a middle school, probes me for what she terms “nothing but the essentials”--what does she need to do tomorrow to ensure her school is meeting the needs of her early adolescent learners. I pause for a moment. I consider the language I will use. Do I reply to her with “suggestions?” Is that a strong enough term? What about “recommendations?” No--I think my research has shown a greater “call to action” is needed. Therefore, I mentally dissect the seven connecting factors found in the data and represented through the conceptual visual framework (see Figure 1), take a deep breath and respond to her in the following manner, “What I am about to share with you are the necessities of any learning environment that aims to support the unique developmental and learning needs of early adolescent learners.”

1. The students - Please never lose sight of the fact that the early adolescent learners you have in your school are the most important resource you have at your disposal to easily gauge if you (as the instructional leader) and your teachers (as facilitators of learning) are on the right track. Talk to your students. Ask them about their experiences in your school. Provide your students with authentic opportunities to develop agency in their learning by demonstrating to them

through your actions you consider them and their voices as important factors when creating a learning environment in which they will flourish. Shadow some of your students throughout the course of their day at school if you truly want to understand what it means to be an early adolescent learner in the middle level learning environment you have been entrusted to care for and lead. Base any decisions you make on what you learn from your students and about your students. Do not attempt to find a “quick fix” in the latest innovation or packaged program. Find the answers you need to create a developmentally responsive, intellectually engaging learning environment, in those very students who are the reason you are here today, wanting to know how to make their experience in your school exactly what it needs to be, so they, too, may see the world of possibilities that exist for them.

2. The instructional leadership - You will be tasked with countless “things” as an instructional leader (meetings, paperwork, measures of accountability, etc.); however, please always remember that protecting the learning environment in your school and those within that environment (your students and your teachers) are your most important responsibilities. You will need to support your teachers in understanding the myriad of “things” in the life of a teacher that may detract from the real work of teaching and learning in their classrooms. [I find the following statement is a good way to help teachers understand what is truly important: “If at the end of the day you cannot say that what you have done has positively impacted your students, then you need to alter your course so you do not lose your way.”] You will need to “protect when you must [and] permit when you can” (Lahey, 2014, para. 1) your early adolescent learners as they navigate this developmental period. And on some days [and, hopefully there are not

many], you will need to be the one who holds on to hope and believes in your teachers, your students and their families, until they can do this for themselves once again. As the instructional leader, you are the synergist who brings together the necessary elements and creates the conditions [and yes, sometimes this happens by “clearing through the mess”] for your teachers to teach and your students to learn. Savour your role and what your instructional leadership has the potential to create every day--for each student and each teacher in your care.

3. The teachers – After your students, your teachers are the most significant resource you have in your school. Just as you know how important it is for your teachers to come to know and understand each of their students as learners and as individuals in order to better support student learning, you must do the same with your teachers. Do not mistake this for friendship. Trust in your teachers (unless you have clear evidence to the contrary)--trust that they want to do whatever is necessary to be the best they can be for their students. The only way you will know how to support the growth of your teachers and their pedagogical practices is by engaging in continuous and ongoing professional conversations and professional learning with them. Be present in their classrooms (not in an evaluative way with a clipboard and checklist) in a manner that allows you to truly understand their work and the ways in which they approach teaching and learning. By doing this, you will continue to grow and develop as an instructional leader, alongside your teachers; for your teachers to see you as a learner as well is a very powerful act of instructional leadership. Provide your teachers with professional learning that will develop their understanding of the early adolescent learners in their classrooms. Remember the times as a classroom teacher, when you and your students were in what can only be described by

Csikszentmihalyi's (2008) "flow." It was like a "perfect storm"; the classroom environment, the task, the conditions, the students, you--it all came together in just the right combination to create an amazing moment of learning. Every teacher should have those moments to remember and savour; help your teachers to develop their pedagogical practice in ways that will allow them to create the kinds of authentic learning opportunities their students will talk about for years to come.

4. The school culture – You can tell a lot about a school from the feeling you get when you walk through the front door. Take the steps necessary to ensure your school is a welcoming place for your students and their families--and a place where your teachers want to come to work every day. The things that may seem frivolous or extraneous to the work of teaching and learning in the classroom are in fact known to have a significant positive impact on your teachers and students and the learning culture within your school. School clubs, sport teams, intramurals, the school band or drama production--all provide amazing opportunities for your teachers and students (and even you) to learn together in non-traditional ways. For some of your students these opportunities will be the reason they come to school. They may always struggle in math class, but they shine on the basketball court--every student deserves to find that place within their school where they shine. There is something very powerful that happens to the culture of a school when teachers, students and their families unite in support of a common purpose. As silly as it may sound, your students take great pride in identifying with the school name and mascot that has been chosen. [Being recognised as a "Titan" (the school mascot name) and wearing that bright orange (the school colour) "hoodie" with the school logo is significant in the life of an

early adolescent.] Create a school culture that you would want your own children to be part of. That is a very good litmus test.

5. The school philosophy – There is something to be said about a strong sense of consistency, cohesiveness, coherence and dependability in the “school life” of early adolescents, when many other aspects of their growth and development seem not within their immediate control. Please examine the processes at your school, many which probably existed long before you arrived, to ensure they are serving your current school population well; and, then do not hesitate to do away with those structures and philosophies that may be doing more harm than good. If there was one word I would use to describe the kind of middle level learning environment (and subsequent school processes) that best support this environment and the learners within it, it would be “flexible.” Do not confuse this with “anything goes” or “laissez faire.” Flexibility very much reflects the needs of early adolescent learners. Your school timetable needs to accommodate large blocks of learning that can be negotiated among the teachers to allow students to delve deeply and linger with topics and issues important to them. The start and end to learning must not be dictated by the sounding of a bell or by the passing of a week or month. Be careful that you not ask your teachers to create unit plans and year plans that determine the pace of learning. This pace, of course, can only be dictated by the actual learning students demonstrate. Ensure the right people are in place in your school to support the unique learning and developmental needs of your early adolescents. This includes your teachers, support staff and any others your budget will permit--such as psychologists, social workers, etc. Please be open to all possibilities that exist with regards to how you might schedule your school, deploy your teachers, group your students,

and secure learning resources and tools. Some of the most unconventional approaches can yield amazing results.

6. The school community – The community in which your school is situated can act as a powerful force for your school; and, whether this takes on a positive or negative tone, in many ways rests in your hands. The positive relationship between your school and its community is one that you want to nurture. You want to shape this relationship so your early adolescent learners are not only supported while in your school, but also the moment they step outside--the community can do this, but you will also need to create the conditions in which this can occur. Early adolescents are not always seen in the most positive light by older generations. Therefore, your students need opportunities where they can demonstrate to the community they are growing up in how they can contribute to it in positive ways. Be creative; open up your building to those in the community; ask them to share in your students' learning. Take every opportunity to showcase your students' unique talents and abilities to the community. Help the community see your early adolescent learners as the kind, caring and capable individuals you know them to be. Then you will have created a school community; and, this is exactly what your early adolescent learners need to support their healthy growth and development as learners and as individuals.
7. The greater vision – What is it that you hope for when you close your eyes and see the perfect place of learning for your early adolescent learners? This is your greater vision and even though it may not be your current reality, it is what you continue to strive for. Never lose sight of it--this is important! Please know that to achieve your greater vision, there are some things that are out of your control; and, this will be very frustrating. You cannot control the government or their

policies impacting education, nor is it likely that you will be able to alter the opinions of those who do not hold education, early adolescents and the work of teachers in the same high regard as you do. The prospect is better that you (both by example and through the philosophy you live at your school) influence practices towards early adolescent learners and middle level learning environments at a district level. Yet, the exceptional work and substantiated beliefs and practices happening in schools on a daily basis may be lost on “senior management,” many of whom have not truly engaged in the real work of a school in years. Direct your energy towards resourcing and supporting the good work already taking place in your own school, work towards changing those school-based practices and philosophies that do not serve your students well and always approach with scepticism those who serve to derail your progress towards that essential place of learning. Be a tireless advocate for leading, teaching and learning in the middle years--this is how you will realise your greater vision, one student, one teacher and one school at a time, beginning with your own.

A Call to Action

At this point in my dissertation, I feel it is redundant to create a list of implications arising from my research and attempt to convince readers of the impact of my study. I believe this has been illustrated in great detail through the three case studies I have presented and further highlighted in the framework I have proposed. In many ways, this is where I have found the available research related to middle level learning environments and early adolescent learners lacking: lists of recommendations, strategies or multi-point plans. I do not want to add yet another list--I want the stories of my participants to be remembered, and I want their words to echo in the minds of instructional leaders and teachers when they make decisions impacting the learning of early adolescent learners. I want the framework I have

proposed, not to be thought of as a “lock-step plan” to be carried out, but something that may disrupt current thinking just enough for the first steps towards transformation of middle level learning environments to take root. But if there were one implication I would emphasise for instructional leaders, teachers and students, it would be this: We can no longer be comfortable with the status quo, believing this will create the kind of learning environments needed to support our early adolescent learners. We must act. And if instructional leaders, teachers and students take action together, I believe “some pretty incredible transformation” can take place.

Further Questions

As I near the end of my dissertation, I feel that in many ways I have more questions now than answers. I have more things about early adolescent learners and middle level learning environments that I want to know about. Perhaps this is the brilliant part of engaging in research; in the end, it creates lifelong learners in all of us, always seeking to understand more. Through the three case studies from Finland, Germany and Canada that I have presented, along with a general framework through which to view developmentally responsive, intellectually engaging middle level learning environments, I believe I have shed light on the research question I set out to answer, “What factors contribute to developmentally responsive, intellectually engaging middle level learning environments for early adolescents?” There are several broad questions and perceived gaps in existing research, however, connected to the following themes that may warrant further consideration:

1. Generalisability of the framework - This study focused on leading, teaching and learning in middle level learning environments in Canada, Finland and Germany. How might the framework that is a reflection of the data obtained in these three countries apply elsewhere?

2. Current state of North American middle level reform - The movement towards separate learning environments designed to support the unique learning needs of early adolescent learners began in the United States many decades ago. In light of numerous education reforms in the United States, what impact has the middle years movement had on their present-day learning environments for early adolescents? How does this compare with the current state of middle level education in Canada?
3. Role of cultural values in education - How might the role of cultural values and ideological beliefs associated with education and their impact on schooling systems, especially middle level learning environments, be further explored to determine how to best use these factors in the advancement and transformation of schooling for early adolescent learners?
4. Student agency - The development of student agency and providing authentic opportunities for student voice in areas that impact their learning seem to be missing pieces in middle level learning environments that seek to be developmentally responsive and intellectually engaging. What do instructional leaders and teachers need to do to support early adolescent learners in developing agency in their learning?
5. Teacher training - How might university teacher training programs work together with instructional leaders, teachers and students in middle level learning environments in more intentional ways so as to better prepare new teachers for the realities of teaching and learning in the middle years?
6. Teacher professional learning - Is there evidence to support one form of teacher professional learning as being more effective in facilitating teachers’

understanding of pedagogical practices that best meet the needs of early adolescent learners?

7. Principal leadership development - What structures and processes might be needed in a leadership development program for prospective middle years principals? What long-term benefit might this type of leadership development have for leading, teaching and learning in the middle years?
8. Creating a data story – What data is currently available and what data is still needed that would support school systems in making better informed decisions about the leading, teaching and learning in middle level learning environments?
9. Implementation factors - What factors have prevented large-scale implementation of research-supported recommendations for transformation of early adolescent learning and middle level learning environments?
10. Sustainability of reform - Is there evidence that sheds light on the sustainability of reform and transformation efforts in middle level learning environments in the absence of a district-wide improvement strategy towards this end?

I have come to understand that with a subject as complex as early adolescent learning, there may never be definitive answers to the fundamental question of how to make their experience with schooling better--and, I have come to terms with this. Educators working with early adolescent learners in middle level learning environment do not need someone else professing to hold a simple solution to their complex and challenging work. This is why I have shifted away from a formulaic response to my original research question. I hope the framework I present can begin a dialogue, ensuring the important discussion related to effective learning environments for early adolescent learners never ends. If there were to be a next step, it would be to ask all those who work with early adolescents in middle level

learning environments to forever be reflective practitioners; to continue to reflect on the practices and processes we expose our students to and always examine “the why.” I have asked this of myself, as well.

Final Thoughts

The phrase “intellectual fearlessness” was used in a recent book *The Power of Why*, by Amanda Lang (2012). I was inspired by the way she described the innovation necessary in learning environments to move students beyond the quest to find the right answer, in the fastest and most efficient way possible, towards fostering a deep desire in our students to ask and continue to ask the questions needed to instill this sense of intellectual fearlessness--a notion that minds are active and open to all the possibilities that may exist, and continue to develop and flourish as deep understanding emerges. This is in stark contrast to minds being “pre-set” to hone in on a predetermined target of skills needed to pass students along to the next task on the “conveyor belt of curricula.”

When I look at the enormous diversity that exists among the learners who fall into the “middle years” category, if there is one thing I now believe that could unite our instructional leaders, our teachers and our schools in transforming the learning experiences for our early adolescent learners, it is this concept of intellectual fearlessness--the belief that all early adolescents deserve the opportunity to develop into intellectually fearless learners. It is the commitment to transforming our middle level learning environments, through developmentally responsive instructional leadership and instructional practices, through the development of student agency, and through the application of current research related to early adolescent learners and the neurosciences that will create a culture of intellectual fearlessness. I believe that the right kind of middle level learning environment can transform the entire learning experience for these students, the most fearless of our learners.

Final words. I recently read Sheryl Sandberg's (2013) book, *Lean In*. It was fantastic for so many reasons, yet my "takeaway" from the book was less about feminism, and more about "leaning in"--period. According to Sandberg (2013) leaning in is, "being ambitious in any pursuit" (p. 10). Instructional leaders, teachers, students, parents and the school community, need to absolutely "lean in" when it comes to creating learning environments where early adolescents can flourish. Sandberg writes that she did not deliberately set out to make her book a manifesto for the woman's movement, but in many ways it has taken on that tone--she just wanted to inspire others. I feel the same way. In no way should a research dissertation be considered a manifesto, yet I would be lying if I did not admit that I secretly hope the work I have presented creates a synergy for real transformation in middle level learning environments. With regards to leading, teaching and learning in middle level learning environments--we need to lean in. That is all.

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Appendix A

Australian Middle Years Reform Conceptual Diagram



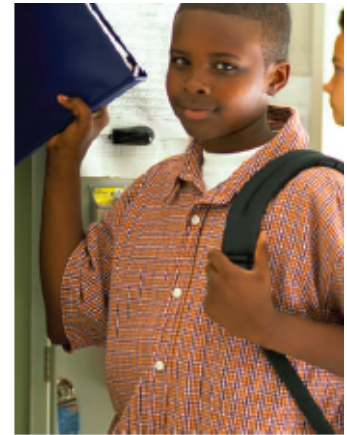
(Rumble & Aspland, 2009, p. 6)

Appendix B

Breaking Ranks in the Middle Recommendations

Recommendations:

1. The principal will provide leadership in the school community by building and maintaining a vision, direction, and focus for student learning.
2. Each school will establish a site council and accord other meaningful roles in decision making to students, parents, and members of the staff to promote student learning and an atmosphere of participation, responsibility, and ownership.
3. Each school will regard itself as a community in which members of the staff collaborate to develop and implement the school's learning goals.
4. Teachers and teacher teams will provide the leadership essential to the success of reform and will collaborate with others in the educational community to redefine the role of the teacher and identify sources of support for that redefined role.
5. Every school will be a learning community in which professional development for teachers and the principal is guided by a Personal Learning Plan that addresses the individual's learning and professional development needs as they relate to the academic achievement and developmental needs of students at the middle level.
6. The school community will promote policies and practices that recognize diversity in accord with the core values of a democratic and civil society and will offer substantive, ongoing professional development to help educators appreciate issues of diversity and expose students to a rich array of viewpoints, perspectives, and experiences.
7. Schools will build partnerships with institutions of higher education to provide teachers and administrators at both levels with ideas and opportunities to enhance the education, performance, and evaluation of educators.
8. Schools will develop political and financial relationships with individuals, organizations, and businesses to support and supplement educational programs and policies.
9. At least once every five years, each school will convene a broadly based external review panel to develop and deliver a public description of the school, a requirement that could be met in conjunction with the evaluations of state, regional, and other accrediting groups.





Recommendations:

10. Schools will create small units in which anonymity is banished.
 11. Each teacher involved in the instructional program on a full-time basis will be responsible for contact time with no more than 90 students, so that the teacher can give greater attention to the needs of every student.
 12. Each student will have a Personal Plan for Progress that will be reviewed often to ensure that the school takes individual needs into consideration and to allow students, within reasonable parameters, to design their own methods for learning in an effort to meet high standards.
 13. Each student will have a Personal Adult Advocate to help him or her personalize the educational experience.
 14. Teachers and administrators will convey a sense of caring so that students know that teachers have a stake in student learning.
 15. Each school will develop flexible scheduling and student grouping patterns to meet the individual needs of students and to ensure academic success.
 16. The school will engage students' families as partners in the students' education.
 17. The school community, which cannot be values-neutral, will advocate and model a set of core values essential in a democratic and civil society.
 18. Schools, in conjunction with agencies in the community, will help coordinate the delivery of physical and mental health as well as social services.
-
22. The content of the curriculum, where practical, will connect to real-life applications of knowledge and skills, and will extend beyond the school campus to help students link their education to the future and to the community.
 23. The school will promote service programs and student activities as integral to an education, providing opportunities for all students that support and extend academic learning.
 24. Teachers will design high-quality work and teach in ways that engage students, cause them to persist, and, when the work is successfully completed, result in student satisfaction and acquisition of knowledge, critical-thinking and problem-solving skills, and other abilities.
 25. Teachers will know and be able to use a variety of strategies and settings that identify and accommodate individual learning needs and engage students.
 26. Each teacher will have a broad base of academic knowledge, with depth in at least one subject area.
 27. Teachers will be adept at acting as coaches and facilitators to promote more active involvement of students in their own learning.
 28. Teachers will integrate assessment into instruction so that assessment is accomplished using a variety of methods that do not merely measure students but become part of the learning process.
 29. Recognizing that schooling is a continuum, educators must understand what is required of students at every stage and ensure a smooth transition academically and socially for each student from grade to grade and from level to level.
 30. Schools will develop a strategic plan to make technology integral to curriculum, instruction, and assessment, accommodating different learning needs and helping teachers individualize and improve the learning process.

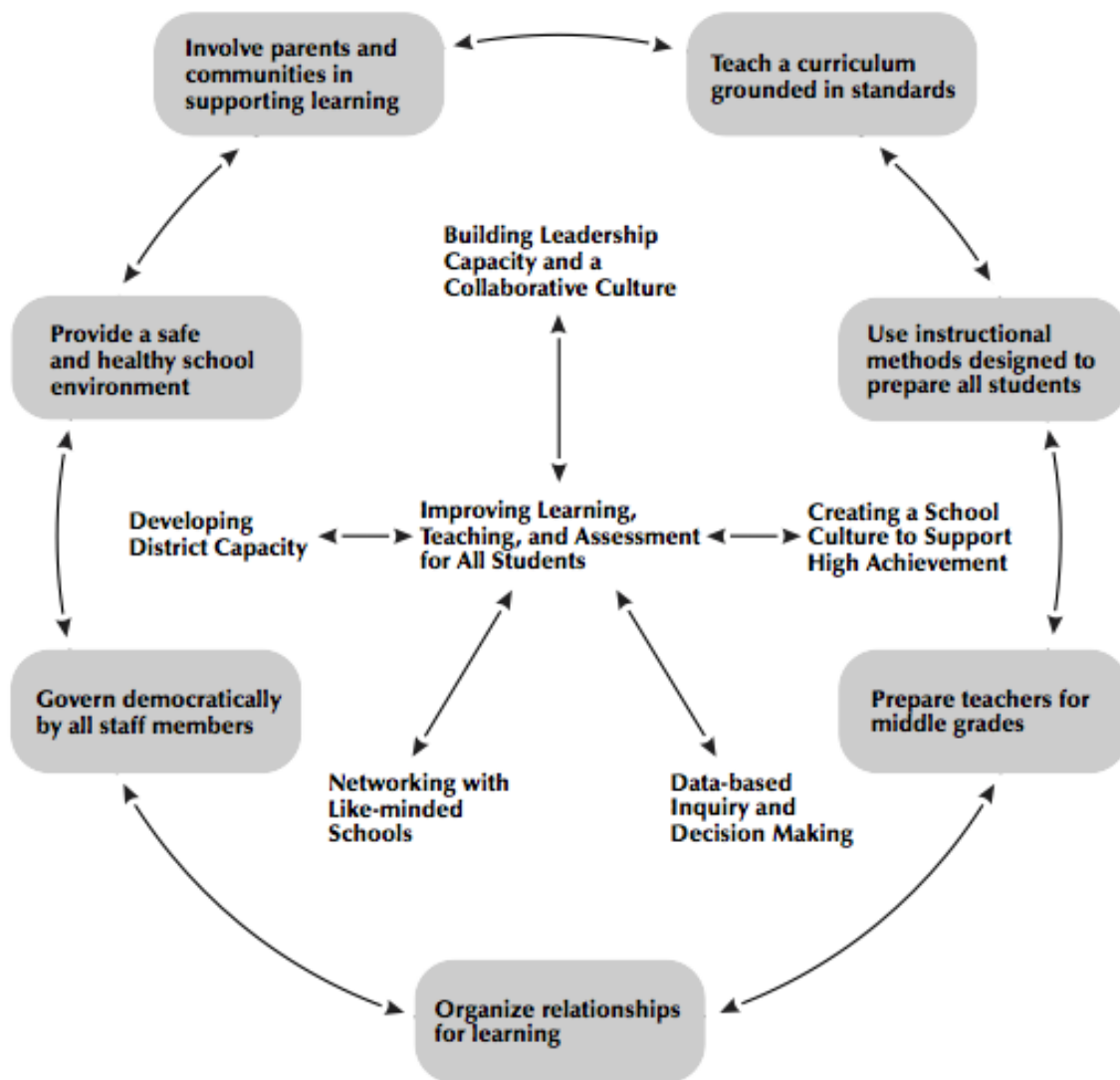


(National Association of Secondary School Principals, 2006, p. 4-6)

Appendix C

Turning Points Design Principles and Practices

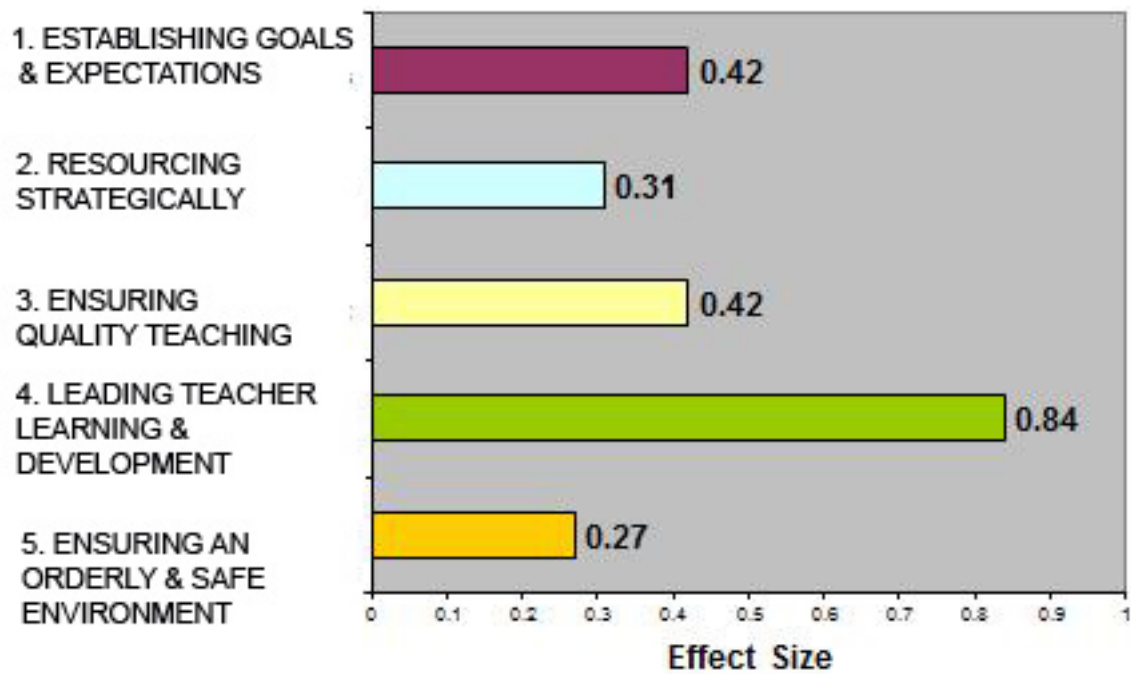
Turning Points Design Principles and Practices



(Centre for Collaborative Education, 2003, p. viii)

Appendix D

Robinson's Five Leadership Dimensions with Effect Sizes

Five Dimensions of Student-Centred Leadership

(Robinson, 2011, p. 9)

Appendix E

Robinson's Leadership Dimensions and Capabilities



(Robinson, 2011, p. 16)

Appendix F

Teaching Effectiveness Framework

PRINCIPLE 1 – TEACHERS ARE DESIGNERS OF LEARNING				
Design is Focused on Building Understanding	Teacher has a general understanding of curricular outcomes and uses them to deliver instruction.	Teacher has a clear understanding of curricular outcomes and sometimes incorporates them into inquiry-based learning (i.e. project-based, problem-based or design-based).	Teacher has an understanding of: (i) how students learn, (ii) disciplinary core concepts and connections, and (iii) curricular outcomes, designing inquiry-based learning tasks (i.e. project-based, problem-based or design-based) that focus student inquiry on issues, questions and problems central to the discipline.	Teacher has an exceptional understanding of: (i) how students learn, (ii) disciplinary core concepts and connections, and (iii) curricular outcomes, skillfully designing strong inquiry-based learning tasks (i.e. project-based, problem-based or design-based) that focus student inquiry on issues, questions and problems central to the discipline, connected to students' lives and connected to the world outside of school.
Design is Informed by Disciplinary Knowledge	Teacher selects activities that emphasize subject matter acquisition which deal with acquiring information, facts and formulas.	Teacher designs learning activities that are organized around subject matter and occasionally brings discipline experts into the classroom to talk about the work they do.	Teacher designs learning experiences that are organized around disciplinary ideas and core concepts and requires that students make connections between existing and new ideas to build understanding.	Teacher designs learning experiences that engage the students in doing work that require distinct ways of thinking about and acting in the world that particular disciplines embody – i.e. students think, act and engage with ideas and core concepts in the same ways as historians, chemists, biologists, botanists, writers, journalists, photographers, architects, etc. to make meaningful connections and build deep understanding.

PRINCIPLE 2 – WORK STUDENTS UNDERTAKE IS WORTHWHILE				
Work is Authentic	The work students undertake requires them to acquire and recall static, inert facts.	The work students undertake has some connection to the world outside of the classroom.	The work students undertake requires them to engage in productive collaboration with each other and with discipline and other experts around matters that are central to the discipline and the broader community outside of school.	The work students undertake requires them to engage in productive collaboration with each other and with discipline and other experts around real problems, issues, questions or ideas that are of real concern and central to the discipline, to the students and to the broader community outside of school.
Work Fosters Deep Understanding	The work students undertake builds habits of mind that emphasize group think by requiring a simplistic solution and/or absolute conclusion attributed to an external authority with no consideration of implications.	The work students undertake requires that they demonstrate industrial habits of mind that present conclusions relative to each other, with simplistic solutions, and a cursory examination of implications.	The work students undertake fosters disciplined habits of mind. Students are asked to: <ol style="list-style-type: none"> i. formulate plausible solutions, ii. articulate assumptions, iii. formulate reasoned judgment and conclusions based on evidence, and iv. consider implications that reach beyond the immediate situation. 	The work students undertake fosters strong habits of mind, innovation and creativity. Students are routinely asked to: <ol style="list-style-type: none"> i. formulate plausible, coherent working theories, ii. formulate well reasoned judgment and conclusions based on evidence with an examination of different viewpoints, iii. analyze assumptions, iv. discuss how things might be otherwise, i.e. supposition, v. thoroughly examine implications, vi. consider ambiguities, vii. work across a variety of contexts, viii. make connections between and among concepts.

PRINCIPLE 3 – ASSESSMENT PRACTICES IMPROVE STUDENT LEARNING AND GUIDE TEACHING

<p>Assessment is Comprehensive</p>	<p>Assessment is exclusively summative (i.e. tests or assignments after learning has occurred).</p> <p>The teacher is unaware of ways to use formative assessment to improve learning or to inform teaching practices.</p> <p>Assessment of learning provides a limited picture of student learning.</p> <p>Teacher relies on one source of assessment data that appears primarily in the form of pencil and paper tests that emphasize recall.</p>	<p>Assessment is primarily summative informed by some formative (i.e., assessment activities built into the learning process) data.</p> <p>The teacher occasionally uses a formative assessment instrument to improve learning and guide planning decisions.</p> <p>Assessment of learning provides a general picture of student learning and competencies.</p> <p>Teacher uses a limited number of sources as assessment data that includes tests, paper and pencil artifacts and the occasional technology presentation.</p>	<p>Assessment is both summative and formative.</p> <p>The teacher uses a limited number of formative assessments to improve learning and inform instructional decisions.</p> <p>Assessment of learning provides an accurate, defensible picture of student learning and competencies.</p> <p>Teacher uses a variety of assessment data from observations, conversations and artifacts that include a wide range of learning proofs including written assignments, student reflections, portfolios, digital images of student work, audio and video recordings.</p>	<p>Assessment is integral to the learning and woven into the day-to-day fabric of teaching and learning.</p> <p>The teacher uses a wide range of ongoing formative assessments to inform instructional decisions and improve practice.</p> <p>Assessment of learning provides an accurate, comprehensive, defensible picture of student learning and competencies at the time the grade is awarded.</p> <p>Teacher and student work together to determine and gather a variety of assessment data from observations, conversations and artifacts that include a rich variety of learning proofs including written assignments, student reflections, portfolios, digital images of student work, audio and video recordings.</p>
<p>Clear Criteria are Established</p>	<p>Assessment criteria are shared after the work has been graded.</p>	<p>Assessment criteria are developed by the teacher and fully explained to students before the work begins.</p>	<p>Assessment criteria are collaboratively designed with students to ensure that everyone has input and understands the learning expectations.</p>	<p>Assessment criteria are collaboratively designed with students and mediated by or added to by experts or expertise within the discipline to reflect authentic real world standards for high quality work.</p>

PRINCIPLE 3 – ASSESSMENT PRACTICES IMPROVE STUDENT LEARNING AND GUIDE TEACHING (CONTINUED)

Students are Self-Directed	<p>Students do not have access to assessment criteria to set personal goals; therefore, are unable to participate in goal setting by identifying proof of learning and reflecting on the gap between current achievement and expected achievement.</p>	<p>Students do not have sufficient access to assessment criteria while learning and/or the criteria are so vague that they are of little help. Therefore students have limited opportunities to participate in goal setting by identifying proof of learning and reflecting on the gap between current achievement and expected achievement.</p>	<p>Students have sufficient access to assessment criteria and feedback while learning and therefore are able to:</p> <ol style="list-style-type: none"> i. identify proof of learning, ii. identify the gap between current achievement and expected achievement, iii. help monitor their own learning as it progresses, and iv. help establish learning goals. 	<p>Students have access to and revisit assessment criteria throughout the study and receive ongoing, specific feedback from a variety of sources in all aspects of learning and therefore are able to:</p> <ol style="list-style-type: none"> i. produce proof of learning, ii. identify the gap between current achievement and expected achievement as well as plans for reducing it, iii. monitor and direct their own learning, iv. develop effective learning strategies, and v. establish important learning goals.
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PRINCIPLE 4 – STRONG RELATIONSHIPS EXIST

Students' Relationship to the Work	<p>Students are disinterested in and see no relevance to the work they are asked to complete.</p> <p>Most students are off task and some are acting out.</p> <p>Students go through the motions of completing work in order to avoid negative consequences.</p>	<p>Students are compliant but see little relevance to the work they are asked to complete.</p> <p>Some students are off task while others are compliantly doing the work.</p> <p>Students complete work with little enthusiasm or do just enough to get by.</p>	<p>Students can make general connections between the work and self, others and/or the real world.</p> <p>Students do the work but their primary motivation is to earn grades.</p> <p>Students are motivated by grades to do a good job.</p>	<p>Students are deeply involved in the work and know why it matters to them, to the discipline and/or to the real world.</p> <p>Students are emotionally and intellectually invested in the work (don't want to stop/put it down/leave class/school).</p> <p>Students are so excited by learning that they spend extra time and effort doing their work. They derive excitement and pleasure from the work they are doing and grades are not their primary motivation.</p>
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PRINCIPLE 4 – STRONG RELATIONSHIPS EXIST (CONTINUED)				
Teachers' Relationship with the Students	The teacher asks students to come to his/her desk if they encounter difficulties while working quietly at their desks.	The teacher circulates among students as they work to ensure that they are following directions and assisting them as needed.	The teacher circulates among the students as they work collaboratively, to monitor learning, stimulate discussion, pose questions, provoke thinking or suggest resources as requested or appropriate.	The teacher engages students in dialogue as they work to extend learning, stimulate discussion, pose questions, provoke thinking, suggest resources and help students determine their next learning steps.
	The teacher provides directions on how to complete assignments.	The teacher provides choices of products that students may use in completing assignments.	The teacher helps students to learn how, when, and why to use different strategies and provides hints, clues, and other feedback to the entire class based on an observation of individual students or in anticipation of likely problems.	The teacher and other instructional partners make their thinking processes public, help students to learn how, when and why to use different strategies and technologies that provide hints, clues, or other feedback as the students' work progresses rather than at the end.
Students' Relationships with Each Other	Students work alone with some opportunities to orally answer questions about the subject content.	Students share ideas to build understanding of the subject content.	Students interact with each other about ideas in which the dialogue builds on each other's ideas.	Students collaborate with each other in which dialogue creates an intellectual camaraderie that promotes improved collective understanding of the topic.
	Students compete with each other.	Students work as members of a group where decision-making procedures are established informally, frequently leading to inconsistency in implementation and a failure to involve all group members in decision-making.	Students work with each other following established procedures for making decisions.	All team members mobilize personal strengths to set forth their ideas and to negotiate a fit between personal ideas and ideas of others, using contrasts to spark and sustain knowledge advancement of the entire team, acknowledging that each member has a significant role to play and personal responsibility in decision-making.

PRINCIPLE 5 – TEACHERS IMPROVE THEIR PRACTICE IN THE COMPANY OF THEIR PEERS				
Teaching is a Scholarship	The teacher relies on commercially produced instructional materials.	The teacher provides students with opportunities to explore areas within the teacher's expertise and/or suggested by commercially produced instructional guides.	The teacher provides students opportunities to explore areas outside of the teacher's expertise, but always stays a step ahead of the students.	The teacher extends his or her own knowledge and questions along with the students' and invites students to become a part of the instructional process.
	The teacher relies on and rarely strays from prescribed resources even if information is outdated and/or inaccurate.	The teacher occasionally brings current events related to curriculum topics into the classroom to share with students.	The teacher continues to learn about and stay abreast of new knowledge related to the subjects he/she teaches.	The teacher continues to learn about and stay abreast of discipline knowledge as it evolves in real world contexts.
	The teacher operates in isolation.	The teacher shares lessons and activities he/she has created.	The teacher obtains feedback about instructional planning from colleagues and mentors.	The teacher works in collaboration with others to design robust learning tasks and obtain feedback about instructional planning from colleagues and mentors.
	The teacher participates in learning communities as part of a school initiative but does not use online communication technologies for professional learning.	The teacher participates in learning communities as part of a school initiative and occasionally uses online communication technologies for professional learning.	The teacher participates in school-based and online learning communities to access continuous ongoing professional learning to improve practice.	The teacher participates in school-based and online learning communities to access and extend continuous ongoing professional learning for self, to improve practice and to advance the learning of colleagues.
	Teacher has not looked at educational research since graduating from teachers' college/university.	Teacher is knowledgeable about research but makes little or no attempt to incorporate ideas into own practice.	Teacher is knowledgeable about and acts in accordance with current research.	Teacher takes the initiative to inform self about current research literature and incorporates it into teaching and learning practices.

(Friesen, 2009, p. 7-11)

Appendix G

International Research Study Information

Dear Participating School Principal,

Re: Leading, Teaching and Learning in the Middle: An international case study narrative examining the leadership dimensions, teacher practices and contextual philosophies that have transformed teaching and learning in the middle years.

My name is Brandy Yee and I am currently a PhD student at the University of Heidelberg. I have the great privilege of working with Dr. Anne Sliwka as my supervising professor. For the past 13 years, I have worked as a middle years teacher, middle years program specialist and assistant principal in a middle school. During this time, these early adolescent learners have captured my interest and curiosity. Understanding how to best meet the unique learning needs of these learners is my area of passion and has become the focus of my PhD research.

The intent of my dissertation is to use the themes emerging from conversations with instructional leaders, lead teachers and students to better understand the conditions necessary to create developmentally responsive, intellectually engaging learning environments for early adolescents. Through the close examination of leadership dimensions, teacher practices, student agency and the interaction of the three in the context of middle years teaching and learning, I will also seek to create a framework or model that could be used to support the creation of developmentally responsive, intellectually engaging learning environments for early adolescents.

In 2010, the Canadian province of Manitoba presented a document entitled, *Engaging middle years students in learning: Transforming middle years education in Manitoba*, that describes the province's vision for teaching and learning in the middle years. I have used this document as the "lens" from which to examine three additional pieces of research that reflect current thinking about instructional leadership, teacher instructional design and assessment practices and the impact of student mindset on learning. This research comes from:

- Viviane Robinson's examination of leadership dimensions that impact student outcomes (2011);
- Sharon Friesen's *Teaching Effectiveness Framework* (2009); and
- Carol Dweck's exploration of the growth mindset (2008).

In the context of my research focus, the Manitoba Middle Years document has framed these pieces of research by adding the very important layers of understanding and attending to the unique developmental needs of middle years learners in order to create effective learning environments for them.

Using a semi-structured interview format with instructional leaders and key lead teachers and a small focus group format with students, I will attempt to draw out common themes related to the beliefs and experiences of these three groups in the context of middle years learning environments. The focus of all questions will be centered on the conditions necessary for the creation of optimal learning environments for early adolescent learners.

In developing questions for instructional leaders, lead teachers and students, I have used the following overarching questions as guides:

1. Using the research articulated by Viviane Robinson (2011) in her book *Student-Centred Leadership* as a lens, “What leadership dimensions contribute to the creation of a developmentally responsive, intellectually engaging learning environment for early adolescents?”
2. Using Sharon Friesen’s (2009) *Teaching Effectiveness Framework* as a lens, “What instructional practices do teachers draw upon that contribute to the creation of a developmentally responsive, intellectually engaging learning environment for early adolescents?”
3. Using Carol Dweck's (2008) *Mindset* as a lens, “How do early adolescents articulate their needs in ways that contribute to the creation of a developmentally responsive, intellectually engaging learning environment?”

As part of this study, I am asking you to spend approximately one hour of your time in conversation with me about your experiences and beliefs regarding teaching and learning in the middle years. I would also ask that you permit me to speak to an additional two or three teachers at your school on an individual basis, along with a small focus group of six to eight students.

If you and your staff would be willing to work with me, I would be happy to contact you in the next week so you can ask me questions about my research and get a sense of who I am and what I may be able to contribute to your school. I would also be happy to send you the question guides I have created and the consent form that explains what happens with the information you give me.

For further questions concerning matters related to my research, you may contact:

Brandy Yee by telephone: (403) 984-7775 or (403) 680-9753
by email: bjyee@cbe.ab.ca

I hope you will be interested in participating in this study.

Sincerely,

Brandy Yee

Appendix H

Participant Interview Guides

PhD Research Questions for Brandy Yee***Leading, Teaching and Learning in the Middle***

Name: _____ Position: _____

Location of Interview: _____ Date: _____

Please tell me a little bit about yourself and your background as a teacher and instructional leader.

What do you feel are your most important roles as an instructional leader?

Instructional Leaders - focus on Robinson's Leadership Dimensions**1. Establishing goals and expectations**

- What is your philosophy about teaching and learning in the middle years?
- How do you establish and communicate the academic focus/direction for your school?
- How do you ensure your teachers are personally invested in and committed to the goals of your school?
- What is your school philosophy about the use of learning technologies to enhance and extend the learning of early adolescents?

2. Strategic resourcing

- In what ways have you resourced your school in order to support the unique learning needs of your early adolescent learners?
- In what ways have you had to rethink traditional patterns of allocating time, staffing and money in order to create a developmentally responsive learning environment for early adolescent learners?
- What do you look for when hiring teachers that will work with your early adolescent learners?

3. Ensuring quality teaching

- What are your most important beliefs about what constitutes a high quality, developmentally responsive learning environment for early adolescent learners?
- In what ways do you and your teachers use data for the purpose of improving teaching and learning?

4. Leading teacher learning and development

- What factors do you consider when selecting professional development opportunities for your teachers?
- What opportunities do your teachers have to collaborate with each other?
- In what ways have you supported your staff or provided opportunities for your staff to expand their understanding of the unique needs of early adolescent learners?
- To what extent and how has current research about early adolescent/middle years learning guided professional learning opportunities for staff?

5. Ensuring an orderly and supportive environment

- What have you considered when creating a timetable that will support the unique needs of your early adolescent learners?
- What kinds of opportunities are there for your students to provide feedback about their attitudes towards school and learning?
- In what ways does your school address and support the unique physical, cognitive, emotional and social needs of your early adolescent learners?
- What are your most important beliefs about how to create a developmentally responsive learning environment that supports early adolescent learners?
- What structures and processes have you put in place that support a developmentally responsive, intellectually engaging, middle level learning environment?

What are your most important beliefs about instructional relationships as they relate to supporting your early adolescent learners?

What are some of the most important lessons you have learned through your experiences in education that you feel would benefit others?

Is there anything else you would like to tell me that I might have missed or that we have not addressed through our conversation?

PhD Research Questions for Brandy Yee***Leading, Teaching and Learning in the Middle***

Name: _____ Position: _____

Location of Interview: _____ Date: _____

Please tell me a little bit about yourself and your background as a teacher.

What do you feel are your most important roles as a teacher of early adolescents?

Teachers - focus on Friesen's *Teaching Effectiveness Framework***1. Thoughtful and intentional design of learning that engaged students**

- What are the most important factors you consider when designing learning for your students?
- Is there a particular style of teaching you believe is more suited to the unique developmental needs of early adolescent learners? Why?
- How do you incorporate student voice into your instructional design process?
- How do you meet the wide range of academic and developmental needs of the young adolescent learners in your classroom?

2. Work students asked to undertake is worthy of their time and attention, personally relevant and connected to the world in which they live.

- How do you ensure students feel connected to and personally invested in their learning?
- What are the key factors you consider when trying to foster student intellectual engagement and investment in their learning?
- What kind of opportunities do students have to make decisions or voice their opinions about their learning and what happens to them in school?

3. Assessment practices focused on improving student learning

- What are your most important beliefs related to assessment?
- What opportunities do you provide for students to be involved in the assessment process?
- How do you communicate student progress towards intended learning targets with them, with their families?

4. Teachers foster relationships that promote a culture of learning

- In what ways has your school created a safe and caring learning environment for your early adolescent learners that promotes both risk taking and the development of trust?
- How do you foster positive learning relationships with your students?
- In what ways do you create the conditions that foster increased student independence and self-regulation in their learning?
- What are your most important beliefs about how early adolescents learn best?

5. Teachers improve their practice in the company of their peers

- What opportunities do you have to collaborate with your colleagues?
- What professional learning related to better understanding the unique cognitive, physical, emotional and psychological development of early adolescents have you been a part of?

6. Effective use of the technologies of our time

- How do you incorporate the use of learning technologies to enhance and extend the learning of your early adolescent learners?

What are your most important beliefs about what constitutes a high quality, developmentally responsive learning environment for early adolescent learners?

What are some of the most important lessons you have learned through your experiences in education that you feel would benefit others?

Is there anything else you would like to tell me that I might have missed or that we have not addresses through our conversation?

PhD Research Questions for Brandy Yee*Leading, Teaching and Learning in the Middle*

Name: _____ Position: _____

Location of Interview: _____ Date: _____

Please tell me what makes your school a great place to learn.

Students - focus on Dweck's Growth Mindset**1. Voice and choice**

- What kind of opportunities do you have to make decisions or voice your opinion about your learning and what happens to you in school?
- Can you give me an example of when you felt you and your teacher worked together to create a learning opportunity that you were really passionate about?

2. Respond to setbacks and challenges

- When you are faced with challenges in school what do you do?
- Who do you turn to for help you when encounter set backs and challenges?
- What kind of opportunities do you have to collaborate with, learn from and support your peers?

3. Relationships with teachers

- In what ways has your school created a safe and caring learning environment for you and your peers?
- How comfortable do you feel taking risks in your learning?
- In what ways have your teachers helped build trust (among students and between the teacher and students) in your classrooms?
- What opportunities do you have in your school to connect with adults who may serve as mentors for you?

4. Connected to learning, relevant

- Can you give me an example of a time when you felt that the work you were doing was similar to what experts in the field would be doing?
- To what extent do you feel the learning experiences you are given are relevant to you and the world you know outside of school?

5. Feedback given by teachers

- What forms of feedback do your teachers give you about your work and how you are progressing in your learning?
- What opportunities do you have to talk to your teachers about how you are doing in school and what you can do to improve?
- How do you use the feedback your teachers give you to improve your work?

6. Effort

- What strategies do you use to improve your work?

- How would you describe your interest in learning and motivation towards doing well in school?
- How do you feel about the expectations your teachers put on you for your learning?
- What kind of expectations do you put on yourself to do well?

7. Response to success

- How do you respond when you get feedback from your teachers that indicate you have been successful in your learning?
- What do you want most from your experience in this school? What goals do you have?

Is there anything else you would like to tell me that I might have missed or that we have not addresses through our conversation?

Appendix I

Case Study Protocol (adapted from Yin, 2003)
Leading, Teaching and Learning in the Middle - Research Study
Brandy Yee – University of Heidelberg

1. Background

- Previous research on the topic – none using the same lenses I have chosen, the Manitoba Middle Years framework, examining leading, teaching and learning in the middle years through the work Robinson, Friesen and Dweck.
- Main research question being addressed by this study - What factors contribute to the establishment of developmentally responsive, intellectually engaging middle level learning environments for early adolescents?
- Additional research questions that will be addressed –
 - Using the research articulated by Viviane Robinson (2011) in her book *Student-Centred Leadership* as a lens, “What leadership dimensions contribute to the creation of a developmentally responsive, intellectually engaging learning environment for early adolescents?”
 - Using Sharon Friesen’s (2009) *Teaching Effectiveness Framework* as a lens, “What instructional practices do teachers draw upon that contribute to the creation of a developmentally responsive, intellectually engaging learning environment for early adolescents?”
 - Using Carol Dweck’s (2008) *Mindset* as a lens, “How do early adolescents articulate their needs in ways that contribute to the creation of a developmentally responsive, intellectually engaging learning environment?”

2. Research Design

- Collective case study design, with data analysis informed by constructivist grounded theory.
- Phenomena of study – examining the lived experiences of instructional leaders, teachers and early adolescents in middle level learning environments to better understand the factors that contribute to the establishment of developmentally responsive, intellectually engaging middle level learning environments.

3. Data Collection

- Semi-structured interviews, participant and direct observation, ongoing memo writing and document review.

4. Data Storage/Management

- Data will be stored using various computer applications, including cloud-based and external hard drive storage systems. Management of this amount of data can be daunting. Participant interview guides, observation guides and a modified conditional relationship assisted not only in the collection of data but also in organising the vast amount of data generated.

5. Data Analysis

- Data will be analysed in two parts; part one will focus on in-depth case study analysis and part two will focus on cross-case analysis of the three cases. The following steps, although not in a linear or predictable sequence will be utilised: open coding, focused coding, memo-writing, visual mapping, development of core categories.

6. Case study interpretation

- Interview guides developed help to focus questions for each participant group (instructional leaders, lead teachers and students) on key tenets of identified foundational research (Robinson, Friesen, Dweck), while maintaining the lens of middle level learning environments.

7. Criteria for quality of the study

- Credibility
- Transferability
- Dependability
- Confirmability
- Authenticity
- Interpretive and Methodological Rigour – refer to questions adapted from the work of Stake, Fossey et al. and Charmaz.

8. Study Limitations

- All factors identified in Chapter 1. Any impact of the researcher and the familiarity of the researcher with the phenomenon being investigated are by choice of the research paradigm and study design, viewed to enrich the study, adding depth to the social construction of the phenomenon.

9. Reporting

- Target audience – instructional leaders and teachers working with early adolescents in middle level learning environments.

10. Schedule

- July 2014 – First meetings and set of interviews in Germany (1 site).
- July 2014 to November 2014 – Initial coding of data. Formulate a plan for data management and storage.
- October 2014 – Canadian research, initial site meetings and follow-up interviews, Alberta and Manitoba (4 sites).
- November 2014 – Finland research, initial site meetings and follow-up interviews (4 sites).
- December 2014 – Return to Germany, complete interviews (3 sites).
- December 2014 – April 2015, analysis of data and writing of results.

Appendix J

Observation Guide

Category	Observations and Anecdotal Comments	
First Impressions of school		
Principal, AP, VP		Post-interview observations
Students		Post-interview observations
Teachers		Post-interview observations
Celebrating Student Learning		
Specialised Resources Available to Students		
External Agency/Wrap Around Support		
School Community/Community Partners		
School Facilities		

Appendix K

Conditional Relationship Guide

Category	Early adolescent learners as a priority	Responsive Legislation & Policy	Systemic Commitment
What What is this issue/factor?	Identifying early adolescent learners as a priority at various government levels (national and regional), including school districts and within schools.	Legislation and policy governing education at the national and state/provincial/regional level that is reflective of the needs of early adolescent learners and their teachers.	Systems/districts committing to (showing support of) early adolescent learners and middle level learning environments.
When When does this most occur? When does this take place?	Establishing learning environments that best support the unique developmental and learning needs of early adolescents.	Trying to create policy and legislation that will identify early adolescent learners as requiring supports different than other populations of learners and supporting transformation in current middle level learning environments	Establishing direction for the system/district as to a vision and direction for leading, teaching and learning in the middle years. Creating professional learning opportunities.
Where Where is this important? Where does this occur?	Training teachers, creating resources, supporting and resourcing schools, teachers and students properly,	Ensuring resources, curriculum, supports, etc...serve the needs of early adolescent learners and their teachers. Creating ways to revisit policy when it no longer serves the needs of early adolescent learners.	Forming system supports and resource teams for middle level learning. Launching networks of teachers and leaders with a common purpose.
Why Why does this need to occur? Why is it important that this occurs?	Valuing the work of instructional leaders, teachers and students. Acknowledging early adolescents have unique learning needs.	Ensuring policy and legislation are current and reflect current state and needs of middle level learning. Making it known these learners are important and will be supported properly.	Making it known to all that the middle years are important and that schools, students and teachers will be supported appropriately.
How How does this occur? The ways in which this occurs?	Requires an understanding that early adolescents have unique developmental and learning needs that need to be supported. Ongoing professional learning for teachers. Support this through developmentally responsive learning environments.	Creating policy to support work in middle level learning environments. Determining long term vision Developing ways policy to change more quickly to reflect current times.	System leaders committing to early adolescent learning and middle level learning environments. Committing resources and support. Showing support of middle level learning environments and their leaders, teachers and students.
Consequence	Cultural Value of Education	Cultural Value of Education	Cultural Value of Education

*This represents only a portion of the conditional relationship guide I used, not the entire document. Here I was examining the relationship between the connecting factor “Education as a fundamental cultural value” and several sub factors.