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Inquiry-based learning in an Inclusive Classroom: A Self Study

by Mallory Paul

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Abstract

This research study was conducted to explore the research question: ‘How do I make pedagogical decisions about implementing inquiry-based practices when considering the needs of all learners in an inclusive classroom?’ I conducted a self-study as my research method, examining my own professional learning and design in how I teach my students, which allowed me to improve in my own pedagogy. It is hoped that other teachers, administrators, parents and students will be able to relate to my reflections and findings, considering this question for themselves. Through my self-study I reflected on the many different practices I used in my teaching, attentive to the choices I made, and their alignment with my beliefs about student learning and inclusion. In this study, I have explored my own decision making while implementing inquiry, linking my own experiences, journal reflections, and literature to the teaching and learning activities that took place. Through reviewing literature on different learning models as well as approaching this work through the lens of diversity, my findings show students should be given the opportunity to learn in a ‘strength based’ environment. Providing students with new opportunities where they can collaborate in groups based on shared interest, and not always ability, and focus beyond academics to include relationship building is essential. We must let students be creators of their own learning via inquisition and curiosity and align programming outcomes and objectives to support all learners in an inclusive environment. It is my hopes that my findings will give other teachers insights that may be exploring the same question; ‘How do I make pedagogical decisions about implementing inquiry-based practices when considering the needs of all learners in an inclusive classroom?’ Keywords: 21st century learner, Inclusive, Inquiry, Project-based learning, Reggio Emilia, diversity

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Dedication

First off, I need to thank all my past students and children in general. If it was not for them, I would not be inspired to have written this work. The children are our future and I want to make sure I do my part to help students feel successful. I truly believe every student has the right to learn and as teachers we must make sure we are doing our part to foster a positive classroom climate that promotes equality for all students. Children are constantly teaching me new things about my practice, and myself, so I thank each and every student for being inquisitive and creative learners, as it reminds me everyday how lucky I am to be a teacher

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Chapter 1 My Introduction

“Strength lies in differences, not in similarities.”-Stephen R. Convey 2004

Everyone is able to learn and it is my job as a teacher to understand our learners and design appropriate means of how to accommodate all learning styles in the classroom for students to feel successful.

Common threads are the need for school-wide approaches, the belief that all children can learn, the need to develop a sense of community, services based on need rather than location, natural proportions of students with disabilities, attendance of children with disabilities at neighborhood schools, supports provided in regular rather than separate education, teacher collaboration, curriculum adaptations, enhanced instructional strategies, and a concern for standards and outcomes (Crawford, 2009, p. 101).

With the diversity amongst students, it is important that our school systems are supporting an inclusive learning environment that supports all differentiated needs of students. School is a place for all students to be accepted for who they are and teachers to provide learning environments to support all learners in the classroom. “To achieve this goal, we need to create school-based learning communities that reach beyond outdated perceptions of disability and that truly value student diversity” (Lupart, 2009, p. 21)

While most people support the idea of inclusion, when it comes to education, teachers face numerous challenges when designing programs to address all learning styles and needs in the classroom. Teachers are asked to implement models in the classroom that support all learning needs, but it is possible that teachers who are asked to implement inclusion have little or no experience.

The need for teachers who have both the knowledge and the ability to teach special-education students is more critical today than ever before. A national push to take students with disabilities out of isolation means most now spend the majority of their days in general-education classrooms, rather than in separate special-education classes. That means general-education teachers are teaching more students with disabilities. But training programs are doing little to prepare teachers (Mader, 2017, p. 2).

When it comes to choosing programs in the class that address the needs of many students, it does not mean that it will benefit all learners. Multiple lessons and differential ways to implement teaching methods are expected from teachers.

Because of changing demographics early childhood teachers need even more skills than ever. Children with special needs are now part of many pre-kindergarten and primary classrooms. Some of these special needs include giftedness, physical disabilities, learning problems requiring individualized education plans, and challenging results from growing poverty. Teachers who know how to gather information and assess children's development are better able to identify the appropriate learning experiences for these children as well as for more typically developing children (Helm, 1997, p. 201-202).

In order for teachers to feel successful when implementing their curriculum objectives and design it is important teachers know their students and have access to different teaching models to best support the differentiated needs of the classroom. But how is it that teachers decide on implementing a design into their practice with the differentiated needs of the classroom?

Learning Models

It is very important to understand the variety of available models that can be implemented into a teacher's classroom design. There is not one model that works for each student, just as

there is not one model that fits each teacher. When making pedagogical decisions of what is the most successful execution of how best to teach the diverse needs of the classroom, it is imperative to review the success and challenges of a variety of other learning models.

Inquiry-based learning. “Inquiry-based learning is most consistent with the development of skills for lifelong learning. It prepares students to know what to do when the options before them are unclear” (Kozak & Elliot, 2014, p. 62). Kozak and Elliot go on to explain that if inquiry is ‘best’ or even a valuable strategy, it is important for teachers to understand how to support all our diverse students in effective inquiry experiences. This is why it is critical to not narrow our teaching design to a ‘one size fits’ all method, as it constricts the lens for students to express their understanding. If we follow the approach of inquiry into our teaching model, it teaches students to showcase their learning in multiple ways. As Kozak and Elliot (2014) discuss, inquiry promotes strategies for problem solving that allow students to connect their own learning with real life problems going on around them, which they are then challenged to apply within the classroom.

When a teacher creates a well-designed prompt that capitalizes on student curiosity, kids can embark on complex, long term learning adventures. Inquiry begins with what students want to know and the things they wonder about. Allowing students to explore these questions describes their desire to learn (Martinez & Stager, 2013, p. 57).

Students modeling the twenty-first century learning method of inquiry are given the chance to explore their learning in a variety of ways in the classroom to find out more about themselves and their passions. Standardized tests and formative assessment are ever changing due to the changes of the twentieth-first century model of what learning should look like, along with that comes continually changing classroom needs. “Children learn from hands on, thought-provoking experiences that challenge them to think and stimulate their brain’s growth and

development. Such experiences cannot be assessed easily by conventional methods” (Helm, Beneke & Steinheimer, 1997, p. 201). “Inquiry where learning follows what the student needs to know and results in the “uncovering” of curriculum through the skillful facilitator by the teacher” (Kozak & Elliot, 2014, p. 6).

Reggio. Reggio is not a new approach; in fact its premise is a collaboration of a variety of well-known scientists, such as, Dewey, Piaget, Vygotsky and other European and American scientists who studied about child development and teaching practices that influenced Reggio philosophies. In Joanne Hendrick’s (1997) book, *First steps to teaching the Reggio Way*, she compartmentalizes Reggio into fourteen different subheadings, making note that they are all closely connected. Reggio is another form of inquiry as “ideas for projects originate in the continuum of the experience of children and teachers as they construct knowledge together” (Hendrick, 1997, p. 22). Malaguzzi, the founder of the Reggio way, summarizes the basic ideas into three important parts that must be present in order to implement the teachings of Reggio successfully: the rights of children, the rights of parents and the rights of teachers. “Loris Malaguzzi reminded us that it is respect for these rights that will bring mutual and shared benefits for children, parents, and teachers” (Hendrick, 1997, p. 25).

Malaguzzi invited us to reflect on the rights of children to realize and expand all their potentials while receiving support by adults who value the children’s capacity to socialize, to receive and give affection and trust, and who are ready to help them by sustaining the children’s own constructive strategies of thought and action rather than be simply transmitting knowledge and skills (Hendrick, 1997, p. 23).

This is one model that values the importance of students being creative and having access to different materials and questions in order to build their individualized experience, growth and development.

Project-based learning. Project-based learning is another model of teaching that focuses on real world connections and learning through experience. It allows students to inquire into a question or topic that each student is able to interpret differently. Project-Based Learning (PBL) is very similar to inquiry with the focus being centered around a child's strengths and diving deeper into themes that allows students to be expressive and think critically. Just like any inquiry method, PBL is a type of inquiry, but it is structured in its own specific way. PBL structures are focused into four parts: communication, collaboration, creativity and creative thinking. "They learn together and from one another, and their learning is meaningful to people beyond school. Students are personally affected by what they learn and are likely to remember it" (Krauss & Boss, 2013, p. 5).

Learning and technology. As a need for change in education practice rises, our understanding of learning is changing too. The approach is more holistic and contextualized. New technologies support this interconnectedness. To a large extent, technology reduces the traditional role of teacher as a conveyor of information. Learning is being transformed-driven by need, informed by what we know about learning and enabled by technology (Kozak & Elliot, 2014 p. 5).

Technology has created a way for students to be more independent in inquiry work and day-to-day learning tasks, which align with the twentieth first century model. With teacher direction and modeling, students begin to explore with yet another way to showcase their learning. As with everything, moderation is key. However, technology has provided another advantage to help students inquire into subjects at more depth and allows for multiple entry points of learning. It is important, however, to understand that just because technology is available, it does not mean we should be using it all the time. So when we do use

technology it needs to be another gateway into providing different learning opportunities for students to research, but also as an adaptation or modification for students requiring support with writing and reading. Technology allows students and teachers an advantage, especially with inquiry-based research, but again how do we implement it successfully with the diverse needs of the classroom and teach students how to use properly with the array of information to explore?

Students with Diverse Abilities

The Alberta Special Education Coding Criteria (Special Education Coding Criteria, 2017) has a variety of codes that breaks down students' different disabilities into; mild, moderate, severe cognitive (intellectual) disability, severe emotional disability, emotional/behavioural disability, learning disability, hearing disabilities, visual disabilities, communication disorder/delay, communication disability/disorder, physical/mental disability, multiple disability, sever multiple disability, severe physical or medical disability, deafness, blindness, severe delay involving language, gifted and talented. The variety of designations makes it challenging as a teacher to best capture what teaching practice to implement, in order to consider the needs of all learners in an inclusive classroom. Students must prepare for the diverse world around us and be given the opportunity to showcase this.

Students appreciate challenge. They expect to work hard to achieve success in school and life. When tasks become too easy, students get bored. Similarly, when tasks become too difficult, students get frustrated. There is a sweet spot for learning, but the problem is that it differs for different students (Hatti, Fisher & Frey, 2016, p. 21).

As educators decide which teaching models to implement, within an inclusive classroom, they also need to consider their choice of assessment. Assessment and teaching models go hand in

hand. Although ministries of education in Alberta and British Columbia are updating their current policies to support students of the twentieth-first century's learning model for curriculum outcomes and assessment, there is still confusion amongst educators of which method and assessment to choose from. As the Ministry of BC (2013) states, "Standards for all students, including students with special needs, are developed with high but appropriate expectations for students' achievement. This means that students with special needs are expected to achieve some, most, or all provincial curriculum outcomes with special support" (p. 3). As a teacher, while following report card and curriculum objectives, there seems to be a disconnect that does not necessarily match to promote inclusive, rigorous and engaging learning tasks for all learners. Due to this it can be daunting to make decisions about how to implement an appropriate teaching model that accommodates all students with the diverse needs of the classroom.

"Teachers remark more than ever before that students of today are different in the way they learn. They seem to have shorter attention spans and become bored more easily than ever before. Why is that? Is something happening in the environment of learners that alters the way they approach the learning process? Does this mean that more students will have learning problems (Sousa, 2007, p. 16)?"

As teachers if we are trying to strive for each child having 'success', we also have to know that each child is unique in what 'success' looks like. This is why it is challenging as a teacher when considering what model to implement within an inclusive classroom of students.

My Personal Context

How I was perceived as a learner. I did not always know I wanted to be a teacher as I often struggled in school unless it was something I was interested in. My family now jokes that I am in my third degree, because they never thought I would be the one who continued my

schooling. I believe that to be a teacher, you have to have a gift, and usually a story of why you wanted to become a teacher. For me that story is simple: I was not understood as a learner. I was not given opportunities as a student to express myself in a way that I felt I could. I did not know the strengths I had and what I had to offer.

I was not successful in school when I was taught to memorize or learn one subject or topic and move on to the next. I was most successful when it came to projects and tasks that allowed for flexible thinking and incorporating many subjects. When I was taught to learn through an inquiry foundation in school, I was able to develop interest and apply strategies I was taught within my work through multiple themes. I began to discover myself as a learner and recognized that I did not fit the “one size fits all” (Lupart, 2009, p. 15) framework, but instead succeeded in the areas where I was able to use all of my knowledge and apply it in multiple ways to express myself. It is important as a teacher and student that we are provided opportunities that create success and strengths within our own realm of potential. I believe that our potentials cannot be discovered if we are all instructed in one way. Therefore to express our understanding, it is important to understand that all learners need to be provided with equitable learning opportunities to express their understanding in multiple ways. But how, with the diverse needs of the classroom, can you make pedagogical decisions about implementing inquiry practices when considering the needs of all learners in an inclusive classroom?

My Teaching Philosophy

“Never let success get to your head, never let failure get to your heart.”-anonymous

As a relatively new teacher, interested in implementing practices to support all learners in my Grade Three/Four classroom, I found that implementing research supported strategies for inclusion was more challenging than expected. The reason I decided to do this self-study was, as a new teacher, I started feeling that there are many different teaching methods, but when it comes

to actually having your own class and implementing it, it is a lot harder than one thinks. How is it that we choose the best method that will fit the needs of all learners?

I most often use inquiry-based approaches in my classroom, as I believe they offer a variety of entry points. Inquiry-based approaches allow students to be innovative, inspired and engaged when doing their work. I definitely believe that although inquiry is an effective approach to teaching, it needs to be thought out and designed properly in order to reflect on your students' needs. It should not be a place of chaos or stress, when done properly. Students and teachers are in control of the design, and it allows for deep learning, which can be applied to real world problems.

Statement of Problem

With the multiple approaches of how to best teach our students, it is difficult as an educator to choose one model that can support each child. Most teachers will take different approaches from multiple models and implement them year-to-year depending on the needs of their class. Having success, however, varies, as it is a constant battle to be able to appeal to each child's needs. There are so many models out there to choose from and I feel that each of them has their strengths and weaknesses, but what is the most challenging for me is to implement them. The philosophy of twentieth first century learning is to differentiate each child's learning, but teachers can find this challenging, especially when complicated by students with diverse needs as part of an inclusive classroom. Therefore, my research question asks: 'How do I make pedagogical decisions about implementing inquiry-based practices when considering the needs of all learners in an inclusive classroom?' Through my self-study, I reflected on the many different practices I used in my teaching, attentive to the choices I made, and their alignment with my beliefs about student learning and inclusion.

Overview of the Study

In order to answer this question, this self-study will explore the pedagogical decisions I made in my practice. The knowledge I learned about this will help contribute to other teachers and my own experience when making decisions on what methodologies can be implemented successfully with the diverse needs of the classroom. Through this study, my research will explore: ‘How do I make pedagogical decisions about implementing inquiry-based practices when considering the needs of all learners in an inclusive classroom?’

I conducted a self-study of my own practice implementing inquiry-based learning while highlighting the different inquiry lessons and approaches I used. I will be looking into my own practice and researching Reggio Emilia, inquiry-based learning and how the special needs brains learn. I am not trying to find out one answer, but rather within my own self-study, reflect anecdotally on my own practice of the successes and challenges I face in implementing different methods within a classroom with diverse needs.

I created knowledge based on artifacts and observations made throughout inquiry projects and teaching situations. With the information I gathered, I reflected on the process through my anecdotal notes and journals that I engaged in. After I reviewed my reflections and observations over the last three years I made as a teacher, I alternated between memoir based life writing, about my experiences as a student, and reflected why I view learning as I have, based on my experiences as a learner.

I interpreted my data through my own accounts by reflecting on personal teaching methods, how I implemented different models of inquiry, and how I progressed in the design from start to finish. Through reviewing literature on different learning models as well as approaching this work through the lens of diversity, my findings show a variety of themes with the conclusion that students should be given the opportunity to learn in a ‘strength based’

environment. Providing students with new opportunities where they can collaborate in groups based on shared interest, rather than ability is essential for positive relationship building. We must let students be creators of their own learning via inquisition and curiosity, and align programing outcomes and objectives to support all learners in an inclusive environment. The evidence I found allowed me to go deeper into my own teaching practice to assist me in understanding how and why, I implement inquiry-based practices, within a classroom of diverse needs.

Value and Limitations

Teachers, parents and students are faced with the complexity of day-to-day responsibilities. The environment to learn in schools is diverse and complex, especially considering the individual needs of each child. It is important as a child, parent and educator to be informed about different methods and approaches in order to be the most successful in how we do our day-to-day activities and who we become in the future. This is hard for most people to do, but typical daily activities are especially challenging for students with special needs. It is my hope that this study will provide some insight into how a teacher with similar goals to mine might make pedagogical decisions, selecting among the diverse strategies available.

This study was conducted with me as a single subject, and interpreted through the lens of my understanding and experiences. Therefore it is both subjective and biased, and cannot be generalized to all teachers. However, I hope that this self-study might offer some themes that resonate with other teachers when faced with the challenges of choosing different learning methods to support all learners in an inclusive classroom.

Chapter: Two

Literature Review

Introduction

There are many practices and models such as Reggio Emilia, Inquiry-Based and Project Based Learning, that are all meant to be a balance of approaches and methods to fit with today's society and students of the classroom. This literature review will explore the literature on these approaches, and the current research on their effectiveness for student learning. It will also discuss inclusion, identifying its theoretical foundations, its practice as described in policy, and the experiences of teachers as they create inclusive classrooms. Some models have been around for ages such as the DaVinci Principles, while others such as Environmental Inquiry are a new focus in today's education system. While they all have different ways of implementation, they share a common theme that the focus should be student focused that allows for expression of their learning and ownership (Phillips & Carr, 2014). What this looks like varies from student to student and classroom to classroom, but the message is the same.

The current push towards twenty-first century model and inclusion models is not necessarily a new concept, but teachers are more aware of the advantages of this type of learning, not only for students, but also for the overall positive impacts it has on the classroom environment and student learning. Classrooms are not a place where students are segregated based on their different needs, rather a positive place for all learners to contribute. Inclusion is "understanding the philosophy underlying diversity which provides the framework for analysis of what diversity means in Canadian schools and why it is important" (Lupart & Porath, 2008 p. 13). Inclusive education definitions depend on the school's culture and other factors, but for the most shares the premise that all students have the right to equitable knowledge and learning.

What is Special Education?

According to Robinson, Schofield and Steers (2005), “*Educational change depends on what teachers think and do-it’s as simple and complex as that*” (p.107). In the Canadian School System from the 1950’s through to the 1980’s, students with significant special needs were often educated at specialized schools where only children with disabilities attended. People started realizing the terrible effects these institutions had on children. “Many children with disabilities were denied education altogether. As recently in the 1950s, even left-handedness was seen as a deviation to be stamped out” (Levin, 2009, p. 107). In the 1970s, the provincial government in British Columbia, formed The Community Living British Columbia (CLBC), after the institutional facilities for special needs students were closed down. “However, with increasing emphasis on inclusion and the mass return of exceptional students to regular education classrooms in the 1990s, schools verged on a state of crisis. Teachers became confused and overwhelmed about their changing roles and responsibilities” (Lupart, 2009, p. 20). This confusion resulted in conflict about what inclusion should look like and what should be practiced. There are many schools that are still struggling with this today. Avramidis, Bayliss & Burden (2010), stated,

Once integration of students with exceptional needs was introduced, instead of focusing on these individuals needs the approach was for the students with exceptional needs to fit in to the regular routine of the classroom environment, “one size fits all approach” (p. 15).

In the 1990’s, a movement was launched where all students would be provided with education based on their individual learning needs. If students were unsuccessful in subject areas or with learning styles, adjustments and modifications would be made to fit the needs of the child. Bayliffe, Brie, Oliver and Hynes (1993) stated, “More and more students were

identified as requiring special education, and regular classroom teachers became less tolerant of student diversity in their regular classrooms” (p. 19).

Strategies for Inclusion

In the province of Alberta,

Inclusive education is a way of thinking and acting that demonstrates universal acceptance of, and belonging for, all students. It is a value-based approach to accepting responsibility for all students (Alberta Education, 2013, p. 5).

In the province of British Columbia,

Inclusive education promotes an inclusive education system in which students with special needs are fully participating members of a community of learners. Inclusion describes the principle that all students are entitled to equitable access to learning, achievement and the pursuit of excellence in all aspects of their educational programs (Bced.gov.bc.ca, 2013, p. 5).

Interpretation of inclusive education challenges educators and educational systems to think about how to implement a framework that adheres to all learning needs, leaving some teachers feeling overwhelmed when it comes to implementation of curriculum design within their classrooms. “The teachers identified several factors that would affect the success of inclusion, including class size, inadequate resources, the extent to which all students would benefit from inclusion and lack of adequate teacher preparation” (Avramidis, Bayliss, & Burden, 2004, p. 194). As Loreman and Forlin et al. (as cited by Slee, 2011, p. 9) notes in his findings around inclusion, if it is seen as a disability, “inclusive education can become code for ‘special education’ and as such can work against inclusive practice, with certain individuals and groups of children becoming pathologies in the eyes of educators”(2014, p. 9).

Emerging Technologies

In the twenty first century learning approach, students use educational technologies to apply knowledge to new situations, analyze information, collaborate, solve problems, and make decisions. Utilizing emerging technologies to provide expanded learning opportunities is critical to the success of future generations. Boucher (2013) found that a comprehensive mission for schools is to educate students to be knowledgeable, responsible, socially skilled, healthy, caring, and contributing citizens.

Technology allows a greater teacher, student and parent relationship too, as it is a communication tool where parents have continual access to see their child's progression, through different programs such as IRIS, which is a web-based teaching and learning application (CBE, 2018) in Calgary. The program allows students to add videos, artifacts and document their learning through Kindergarten to Grade Twelve on different learning tasks. "Iris brings together student voice, learning data, and best research in supporting teachers and administrators in making well-informed instructional decisions for each student" (CBE, 2018).

The Need for Change *"The world as we have created it is a process of our thinking. It cannot be changed without changing our thinking" Albert Einstein*

"Teachers may face significant challenges when meeting the needs of children who have learning problems. Trying to figure out what is happening in the brains of these children can be frustrating and exhausting" (Sousa, 2007, p .2). The good news about brain research is that there is a lot more evidence and strategies in place to help students with learning difficulties. Teachers want to help all learners in their classroom, but at times are 'stuck' when making decisions of what the best approach is, to help all learners. Teachers must provide opportunities for all learners to succeed and in doing so must understand the best approaches that allow for students growth.

The teacher should know if students need surface, deep, or transfer type work or what combination while ensuring the parts are explicit for students. In this way, the teacher can maintain the challenge while providing appropriate instructional supports. Showing students near the beginning of a series of lessons what success at the end should look like is among the most powerful things we can do to enhance learning (Hatti, Fisher & Frey, 2016, p. 22).

Teachers want students to be successful and modeling to students what success looks like is important too. Teachers need to provide learning opportunities for each child, while adhering to their individual needs. In order to best describe the different models out there, it is important to discuss them to understand the process teachers go through when considering an appropriate design within their classroom. The different learning models I will describe in this study will be; Inquiry-Based Learning, Reggio and Project-Based Learning.

How the Brain Learns Today *“The human brain is an amazing structure.” David Sousa*

Our brain as we age develops connecting different synapses and wiring that contribute to our development. At different stages of development, the brain is responsible for different things. What are different from today’s brain to the past are the impacts innovation and the environment have on the brain of today. In the past, children were learning in different environments than today, where the concept of “time” seemed to be more available, compared to today. The time to read and talk with one another, the time to play with friends on the street developing different motor and social skills, and the time to be more focused in class with less distractions in school all seemed to be more stable (Sousa, 2007).

The environment of today is much different. Family units are not as stable as they once were, students have continual access to technology and media, spending more time on devices than playing with friends down the road. There is also access to multiple

resources, with the spread of technology not just school to teach children new things (Sousa, 2007, p. 17).

Hamilton et al (2007) stated that, “The brains of today’s students are attracted more than ever to the unique and different-what is called novelty” (p. 17). Is it possible that some children are referred for special education evaluation not because they have true learning difficulties but because a school has not adapted to their changing brains, which should not be happening. Instead we need to implement teaching practices that support all students’ of an inclusive classroom by provide individualized learning instruction, such as inquiry, to accommodate all learning requirements.

As we gain more scientifically based understanding about today’s novel brain and how it learns, we must rethink what we do in classrooms and schools. Maybe then, more children will stay in the educational mainstream rather than be sidelined for labeling.

Although schools and teachers must be accountable for providing learning environments to the new brains of today, learning disabilities do exist (Sousa, 2007, p. 18).

With these disabilities it is important teachers implement successful ways that address all learning needs and that is why it is important as a teacher to learn how to successfully implement curriculum design that allows for the expression of all students within their classrooms.

What are IPP’s and IEP’s?

How IPP/IEP (individual program plan/ individualized education plan) are implemented from province to province and school-to-school, vary. In most provinces, it is a collaboration effort between teacher, parents, principal and parents. “A school board must ensure that an Individual Education Plan (IEP) is designed for a student with special needs as soon the board identifies the student as having special needs” (bced.gov.bc.ca, 2013, p. 11).

Teachers often lack the knowledge of how to create IEP's and IPP's, which adds to increased workload and differentiated IPP's amongst students with the same coding. While all students are individualized and each report should look differently, it causes confusion of what is expected for teachers, which results in decreased confidence when creating them, due to different expectations from school to school.

More generally in Western Canada, it was observed at the symposium that responsibility for developing IEP's has been "downloaded" to classroom teachers, who typically lack background on teaching students with disabilities and who seldom have the required 8 to 24 hours to develop an IEP. The supports that teachers need are typically not in place, and school districts have different approaches to dealing with planning issues, which have not been well researched (Kameenui & Carmine, 2008, p. 68).

Sigel and Ladyman (2000) have pointed out that in "British Columbia, IEP's tend to serve funding and auditing processes rather than critical planning purposes for which they are intended"(Crawford, 2009, p. 67).

Student Diversity in Canadian Schools

It has been said by Martin Luther King, *"An individual has not started living until he can rise above the narrow confines of his individualistic concerns to the broader concerns of all humanity."*

Krauss and Boss (2013) discuss how quality is something that we all should be born with. Unfortunately, this is not the case due to a multitude of societal issues and demographics, which can be seen currently through: income discrepancies, between men and women, stereotypes about social economic status and discrepancies of what inclusion should look like in the classroom. With the shift in our society, slowly these viewpoints are becoming a thing of the past, but we still have a long way to come, for everyone to feel equitable, especially when it

comes to learning. With the wide range of skill sets and learning challenges students bring to the classroom, it is important to create an environment that allows students to feel accepted, comfortable and equitable within themselves and their learning (Kozak & Elliot, 2014).

Young people may need various disability supports, to enable them to participate as valued equals in regular education arrangements. Present arrangements for delivery of disability supports are complex. Essentially, however, provincial ministries responsible for health, education, children and families, and social services are all involved, as are Indian and Northern Affairs Canada and provincial authorities responsible for First Nations (Krauss & Boss, 2013).

Sailor and Roger (2005) also discuss, teachers might not feel confident in their own training and skill set to implement differential lesson plans, so all students are receiving the same education opportunity, therefore leaving some to fall behind academically. The diversity of skill sets and learning tasks within a classroom pose challenges for teacher's confidences when making decisions to best support their students in an inclusive classroom. Therefore, it is important to know the variety of different learning models available, when making decisions about educational frameworks to apply within the classroom.

Inquiry-based learning. *“This is obviously the way that teaching and learning should happen.” David Suzuki*

Inquiry-Based Learning is a dynamic and emergent process that builds on students' natural curiosity about the world in which they live. As its name suggests, Inquiry places students' questions and ideas, rather than solely those of the teacher, at the center of the learning experience (Chiarotto, 2011, p. 7).

Teachers are there to support students' learning but the premise is to encourage students to think critically about the world around them and in both curricular and social situations.

Teachers using an inquiry-based approach encourage students to investigate their own questions about the world. Inquiry allows students to have natural curiosity and can incorporate many cross-curricular subjects to allow students to have a greater connection in all areas of their learning. Inquiry is the “roots” of much pedagogy that has been implemented over time.

Reggio Emilia. *“A child is like a butterfly in the wind. Some can fly higher than others, but each one flies the best it can. Why compare one against the other? Each one is different. Each one is special. Each one is beautiful.”* -Unknown

The Reggio Emilia was an approach that was developed by Loris Malaguzzi, in the region of Emilia Romagna, Italy. It started at the end of the Fascist dictatorship in 1945 and was introduced to bring change to the shifting worldview at this time. The idea of how the schools came to be, all had different ways to bring them to life, but all shared the common theme of community coming together to create the vision of Reggio Emilia and innovate children in their learning (Gandini, Hill, Cadwell & Schwall, p. 7, 2015).

The region’s philosophy was first introduced for preschool age children and has now been adapted into the western world for all ages of students. In the 1950’s and early 60’s, a movement was underway in Italy to push education into an innovative direction and provide new ways of teaching to align with the new modern world that was approaching. “Children are biologically predisposed to communicate and establish relationships. This is why we must always give them plentiful opportunities to represent their mental images and share them with others” (Gandini, Hill, Cadwell, & Schwall, 2015, p. 40). As teachers we must make decisions about how we will instruct students to become innovative that allows for creative expression. ‘Materials’ is an important part of Reggio teaching that teachers use, as it allows for each students learning to be personalized by communicating through materials.

Italian educators in Reggio Emilia use the phrase “hundred languages” as a metaphor for teaching, learning, and expressive use of materials that occur within their schools. The idea that materials have the ability to take on expressive aspects and meaning comparable to verbal language is foundational to the pedagogy of Reggio Emilia (Schwall, 2015, p. 49).

An example of a task related to how materials might be used in the classroom and the realm of possibilities materials can exhibit, was through a project done by Carla Rinali (2015), with preschool children looked at a piece of wire. As they looked at the material, they begin to represent the wire in numerous ways. First they make a bracelet, then they put it on the back of a chair and make loops to represent reins for a horseman riding, and finally the chair becomes the actual horse as the reins have changed into wired ears. “As we know, human beings are equipped with two forms of thinking: convergent thinking, which tends to ward repetition, and divergent thinking, which tends toward the reorganization of elements” (Rinaldi, 2015, p. 46). In this example the child is exhibiting divergent thinking and does so easily as “young children do not have a particular theoretical background or established connections among objects and facts” (Rinaldi, 2015, pp.44). Choosing materials for children to manipulate and transform is essential to students learning. For example Giovanni, in Schwall’s (2015) article, where he talks about the grammar of materials he goes through different properties of materials that allow for multiple forms of communication for students. “Clay, for example has plastic 3-dimensinal qualities; it can bend, twist, or be modeled with the fingers, or it can take on volumetric form and surface texture” (Schwall, 2015, p. 52). As teachers we must think of the materials we have for students in the classroom that allows each child success in using them. “Objects from everyday life, nature, or other sources are unique in that they can be collaged, assembled into various shapes and forms, and take on an infinite variety of symbolic association” (Schwall, 2015, p. 52). We

must be creative with the supplies we use and collect and design teaching practices within our classroom that personalize learning for students in an inclusive classroom.

Materials become languages when, through a child's relationship to a material's unique capabilities, meaning is created and communicated. In this process, the role of the teacher is layered and multifaceted. Frameworks for learning can be designed that engage children's use of materials, promote open-ended discovery, and, over time, develop understanding of the expressive and communicative potential of materials (Schwall, 2015, p. 52).

According to Ming Lui and Sin (2017), the problem teachers often face with this approach is the lack of materials available for students to create with, knowledge, time and learning space for students to work with. Often the premise of Reggio does not always fit with the curriculum objectives either, which make it challenging for teachers to implement and justify in their practice.

Creativity is not just the quality of thinking of each individual but it is also an interactive, relational, and social project. It requires a context that allows it to exist, to be expressed, to become visible. In schools, creativity should have the opportunity to be expressed in every place and in every moment. What we hope for is creative learning and creative teachers, not simply a "creativity hour." This is why the atelier (teacher) must support and ensure all the creative processes that can take place anywhere in school, at home, and in the society. We should remember that there is no creativity in the child if there is no creativity in the adult (Gandini, Cadwell, & Schwall, 2015, p. 46).

When it comes to encouraging and inclusive setting in the classroom, Reggio is a good methodology that allows student choice in how they characterize their understanding through numerous platforms that attends to students' strengths.

Project-based learning. *As Robert Frost said, “I am not a teacher but an awakener.”*

Project-based learning (PBL) has a goal of making learning a “real world approach” and take a task that normally would be linear with prescribed outcomes to instead allow for flexibility in how students communicate their understanding to share with others. “When students engage in quality projects, they develop knowledge, skills, and dispositions that serve them in the moment and long term” (Krauss & Boss, 2013, p. 53). Project-based learning allows students to take their knowledge and learning in the direction they see fit. It builds on strengths of the students’ abilities and allows the individual to showcase their learning in multiple ways in the classroom.

Unfortunately not all projects live up to their potential. Sometimes the problem lies in the design process. It’s easy to jump directly into the planning activities students will engage in without addressing important elements that will affect the overall quality of the project (Krauss & Boss, 2013, p. 53).

As Krauss and Boss (2013) state, the model of PBL follows the four C’s: communication, collaboration, creativity and creative thinking. Through the process, students develop skills to address real world problems. PBL stems from inquiry-based learning as it too starts with a question called a “driving question,” where in inquiry it may be referred to as an “essential question.” It allows teachers to integrate multiple subjects and pose a question for students to challenge their thinking. An example of a driving question might be, “How should we honor heroes in our community” (Krauss and Boss, 2013, p. 79)? A question such as this allows students and teachers to brainstorm ideas of how they will share the knowledge they learn as well as design multiple ways to express their understanding through posters, pamphlets, videos, podcasts and so on. Students in this project answered the question, “by gathering oral histories and photographs, student created historical valuable primary source materials. They interpreted

their findings with the dual goal of education others and also honoring the contributions of important citizens”(Krauss & Boss, 2013, 79).

Instead of worksheets and every student having the same experience, which would take place in a traditional learning approach (TLC), through the process of PBL, students inquire into projects they learn and further develop their skills for critical thinking. This allows for creativity being formed for students to allow other skillsets for their future, compared to the TLC approach where schoolwork is taught in a linear fashion with subjects addressed individually.

An example of a PBL task and how it could be implemented to students through literacy was a project done by George Mayo, “The Transitions Project”. In his eighth grade classroom, the project was created so students would achieve the learning outcomes of plot, theme, visual literacy and written storytelling skills. (Krauss & Boss, 2013, p. 74). To start the project, students engaged by responding to a personal question and were asked to “freewrite about difficult challenges they have experienced” (Krauss & Boss, 2013, p. 74). As students began to share their writing with one another, they began to see crossover themes that allowed students to work in collaborative groupings. Students were put into teams and challenged to then turn their original freewrite into different kinds of literature through metaphors so “students were focusing on broader themes” (Krauss & Boss, 2013, p. 75). The next step of the assignment was for students to bring in favourite books from home and Mayo brought in children stories so students could analyze amongst peers to discuss the appeal of the books, and look closer at the illustrations in books and what they communicate (Krauss & Boss, 2013). “To engage creativity, Mayo introduced a variety of visual thinking tools to help students generate original plots” (Krauss & Boss, 2013, p. 74). Once students were able to brainstorm and were frontloaded with information to help the eighth graders create their own stories, students used Google Docs, so they could collaborate together in their stories amongst their peers (Krauss & Boss, 2013). Mayo

realized that some students were not comfortable with drawing so he brought in an artist to help students feel more comfortable with creating illustrations for their books. Once their drafts were completed, students then collaborated with younger students of a grade three classroom where they were provided with feedback. At the end of this project, opportunities for students allowed them to be introduced to a variety of skillsets and learn multiple disciplines such as art, history and language arts. “When we look more closely at how language arts and critical thinking are used in the world beyond the classroom, it’s easy to see the wisdom of this approach” (Krauss & Boss, 2013, p. 76).

Project-based learning has been used in many different ways to intergrade different subjects, but to better understanding PBL it is important to know the differences between PBL and thematic teaching. PBL and thematic teaching share some common outcomes such as “both are meant to be of high interest. Both involve longer time study a “unit” of connected learning activities” (Krauss & Boss, 2013, p. 7). The thing that differentiates them however, is thematic teaching is organized around themes.

Thematic teaching is a practice that organizes learning activities within a theme.

Dinosaurs, seasons, survival, Roman Times, probability, famous authors, China and other topics might organize assignments across subjects. The biggest difference between thematic instruction and project-based learning come down to control, relevance, rigor and enduring understanding (Krauss & Boss, 2013, p. 19).

Thematic learning is teacher centered, where as PBL is student centered. Students have more control over how and what they study, and particularly how they will share their final product. “PBL is student centered. Students have a degree of control over what they learn, how they learn, and how they express their learning (Krauss & Boss, 2013, p. 7). When it comes to promoting and inclusive environment in the classroom, PBL is a good approach that allows student choice

in how they represent their understanding through various platforms that focuses on students' strengths.

Teacher Implication of Inquiry

For teachers to create inquiry tasks it is important for them to understand how to implement it with students as well as how to assess student work. "By understanding more about how inquiry works, teachers engage and sustain students' curiosity across the arc of a project" (Krauss and Boss, 2013, p. ix). The problem often does not stem from the implementation of inquiry. However, the challenge for teachers is to match the assessment to inquiry, as mandated outcomes and report card objectives are still expected to assess student achievement. For example in British Columbia, they have put out a new curriculum design in order to promote an inquiry approach to classroom teaching, which allows for inclusive classroom environments. However, they still have letter grades as a form of assessment.

"British Columbia promotes an inclusive education system in which student with special needs are fully participating member of a community of learners. Inclusion describes the principal that all students are entitled to equitable access to learning achievement and the pursuit of excellence in all aspects of their educational programs" (BC Ministry of Education, 2015, p.10).

For example a letter grade of "A" for a final report period for grades four through eight in accordance to British Columbia standards is "The student demonstrates excellent or outstanding performance in relation to expected learning outcomes for the course of subject and grade" (BC Ministry of Education Governance and Legislation Branch, 2018). It is then ranked as well through percentages of 86 to 100. An "F" for a final report means,

The student has not demonstrated the minimally acceptable performance in relation to the expected learning outcomes for the course or subject and grade and is ranked from a

percentage of 0 to 49. “F” (Failed) may only be used as a final letter grade if an “I” (in Progress) letter grade has been previously assigned or the “F” is assigned as a result of failing a provincially examinable courses” (BC Ministry of Education Governance and Legislation Branch, 2018).

The new BC curriculum does discuss how they support students with exceptionalities, Government policy supports the principals of inclusion of all students. Students with special and/or ELL needs can achieve prescribed learning standards through the strategic use of personalized instruction and assessment methods. Some students with special needs may require program adaptation or modification to facilitate their achievement of the learning standards in this curriculum” (p. 9).

The BC new curriculum is designed to honor students’ unique skillset and promote inclusive ways of instruction to support all students:

The redesign of curriculum maintains a focus on sound foundations of literacy and numeracy while supporting the development of citizens who are competent thinkers and communicators, and who are personally and socially competent in all areas of their lives. British Columbia’s redesigned curriculum honors the ways in which students think, learn, and grow, and prepares them for a successful lifetime of learning where ongoing change is constant (British Columbia Ministry of Education, 2015, p. 12).

In Alberta, The Calgary Board of Education letter grades are not applicable, however, a scale from 4 to 1 is used, where a “4” means “Excellent, the student has demonstrated excellent achievement of grade level expectations” (Calgary Board of Education, 2018), and a “1” means “Not Meeting, the student is not meeting grade level expectations” (Calgary Board of Education, 2018). Teachers are allowed to use IPP’s as letter grades only when students are identified with a code and have an IPP designation that relates to particular subject areas. In Alberta for

example, one of the six Calgary report card stems for English Language Arts that is used as an indicator of students' success is that students are able to construct meaning and make connections through listening. If a student has been identified with Attention-deficit hyperactivity disorder (ADHD) and also exhibits challenges in literacy because of focus challenges, the student is not allowed to have IPP as a grade in those subject areas unless a Learning Disability Code (LD) is also identified on their IPP. In ADHD, "the biological basis of the disorder appears to lie in differences in brain structure and function as well as the presences of certain genetic abnormalities" (Sousa, 2007, p. 51). Therefore to accurately diagnosis ADHD it does not necessarily lead to a designation on an IPP that aligns with their learning challenges, so teachers are then required to put an outcome indicator of a "1" and explain why this student is not achieving at grade level expectations. A teacher might write: Student is not meeting grade level expectations, but with teacher modifications put in place that allows student to be situated in the classroom free from distractions, student is more successful when it comes to constructing meaning and making connections through listening. Assessment based on numbers and letters creates challenges when implementing inquiry and promoting differentiated ways of learning for students with prescribed outcomes and reporting does not align with the outcomes of inquiry or students needs. "Adherence to a pre-determined set of lessons in a unit plan is counterintuitive to the goals of Inquiry based Learning and Knowledge Building" (Chiarotto, 2011, p. 19).

In Inquiry-based learning classrooms, teachers need to use their professional judgment to balance these purposes in accordance with their goals and beliefs about how students learn best. For instance, it is counterintuitive to establish a responsive student-centered, and developmental learning program that relies primarily on quantitative assessment tools when assigning a grade (e.g., test scores) (Chiarotto, 2011, p.30).

Another important role that inquiry values of assessment is called,

“Transformative Assessment, which suggests that students should play an important role in assessing their own learning and that of the entire community. The beauty of Inquiry is that from the beginning of the learning process, students are instrumental in establishing learning goals and success criteria for themselves through the vary questions that they ask (Chiarotto, 2011, p. 30).

If this is the case, then there seems to be discrepancies in terms of how to assess student work as it is subjective and may vary from classroom to classroom, depending on how teachers make decisions in how to assess student work. Another limitation teachers face when implementing “inquiry”, is how teachers perceive student work based on the prescribed outcomes. When it comes to applying inquiry in in inclusive classroom, it may be more challenging to design inquiry-based practices when the outcomes do not necessarily match provincial standard outcomes around assessment.

Gaps in Literature

“Inclusive education has been a global consideration for more than three decades. Most educators agree that all children and youth would ideally be included in our school systems and classrooms” (Katz, 2013, p. 9). Teachers, however, face many problems with what they need to know and do to make inquiry work in practice, particularly with students with exceptional learning needs. “One limitation of the twenty-first century skills models is that while they specify prioritized learning objectives, they do not offer educators the “means” by which to achieve those actual “ends” (Chu, Reynolds, Tavares, Notari & Lee, 2016, p. 29). Therefore, more knowledge must be created to provide teachers with the ‘means,’ strategies and understanding to meet these goals.

Children are diverse in personality, in ethnicity, in languages, in family structures, and in

learning styles. Their similarities and differences all contribute to the makeup of a diverse classroom. Inclusive education has to be about all these children. The goal of inclusion is to provide high quality education to all students (Kats, 2013, p. 10).

Lupart (2013) discusses the disconnect of past instruction to now, and how teachers and educators much shift their approach to best support students in an twenty first century inclusive classroom.

Teachers are the school-based professionals who have a lengthy, personal relationship with each child in their classrooms. They are the ones who take the knowledge base as it is presented in our school curricula and who chart the course for the learning success of their students (Lupart, 2009, p.24).

Inquiry and the Benefits for Inclusion

This literature review has explored the historical development of inclusive practices, learning programs, and research studies on inquiry and problem based learning. As discussed, inquiry allows for multiple outlets and ties in with the twenty first century learner as it accommodates diversity in learning through multiple means. Many schools however, are still struggling in what inclusion looks like today. “What seems to be missing is how to bridge these two things together; how to support all students in inclusive classroom settings using inquiry-based learning and the new curricular model in British Columbia” (Pepin, 2017, p. 31).

Inquiry allows for thought provoking experiences and individualized progression and process. Essential questions allow students to be critical problem solvers and answer questions related to subjects they are studying. Reggio allows for creative expression and imaginative teachers through a continual progression, and PBL is designed to showcase students’ strengths. All models are a piece of the puzzle that we call ‘inquiry’. How inquiry is implemented to allow for students’ differentiated learning is the mystery that each teacher must solve for himself or

herself. For those of us who want to move away from the traditional classroom model ‘one size fits all’, which limits students’ expression to communicate understanding, inquiry is a chance to provide learning opportunities that capture students’ strengths. It is our responsibility as teachers to facilitate this type of thought for our students. Much is known about what works for student learning. However, what needs to be explored is: ‘How to make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom?’

Many strategies and approaches have been tried, from top-down government directives and legislation to promote integration to individual classroom teachers making bottom-up changes in their design and delivery of instruction, so all students within the classroom can experience learning progress and success. The biggest challenge is for systems to align their efforts so that they are consistent with the goal of authentic inclusion. This means that government departments or ministries of education, teacher preparation programs, school boards, teacher unions, and advocacy groups all need to review their policies and practices, and if those practices run counter to the promotion of inclusion and support of student diversity, the necessary changes need to be made (Lupart, 2009, p. 22).

Schools that were once “One size fits all” (Lupart & Porath, 2009, p. 3) are becoming a thing of the past. Teachers act as a facilitator of knowledge, while students unveil their own potential through inquiry. “Through an inquiry-based learning approach, teachers have the opportunity to nurture students natural curiosity and their ability to be fully engaged learners throughout their lives” (Chiarotto, 2011, p. 7). Knowledge is conveyed by need and many schools are still struggling in what inclusion looks like. This is why I decided to investigate: ‘How do I make pedagogical decisions about implementation of inquiry-based practices when considering the

needs of all learners in an inclusive classroom’.

Chapter 3: Research Methodology

This research study was conducted to explore the research question: ‘How do I make pedagogical decisions about implementing inquiry-based practices when considering the needs of all learners in an inclusive classroom?’ I conducted a self-study as my research method. In order to best understand my students, I must first understand myself as a teacher. Examining my own professional learning and design in how I teach them allowed me to improve in my own pedagogy and hopefully other teachers, parents, administrators and students will be able to relate to my reflections and findings.

Defining Self-Study

As self-study research is still being developed, it is important to talk about my own experiences and how these experiences shaped the implementation of my teaching practices. Sharing my progression and reflections can then be shared amongst others encountering the same challenges that I face in choosing a design that fits the diverse needs of all students. “Like any new field of research, self-study has gone through growing pains and stages of development marked by a need for a shared understanding and shared language around the field of self-study” (Lassonde, Galman & Kosnik, 2009, p. 24).

A self-study is a term used in educational research circles to describe teaching and researching practices in order to “better understand; oneself; teaching; learning, and development of knowledge about these” (Loughran & Russell 2004, p. 9). Self-study and action research studies share commonalities such as emphasis on improving practice, interactive collaboration, and the primary use of qualitative methods (LaBoskey, 2002).

The results done by Loughran and Russell (2002) determine that: Self-study is an emergent and creative process, that changes in practice necessarily integrates change in self, that self-study requires a collective, and that self-study’s version of professional

growth challenges the developmental model that implies that teachers improve simply with experience (p. 22).

There are self-studies being implemented in professions to reflect honesty in one's practice. I decided to look further into my own practice by doing a self-study on how to implement inquiry-based practices with the diverse needs of the classroom.

Participant/ Context

I am the main participant in this study. As a teacher, it is an effective way to reflect on one's practice to better understand one's teaching method, as well as factors that contribute to our pedagogical roles and decisions. A self-study is a method of searching deeper into my own pedagogy as a teacher. This may help students, colleagues, administrators and parents understand the challenges and successes teachers face when it comes to implementing appropriate design into the classroom while considering all the needs of the students.

The context for this study is reflection on my past three years of practice, considering decisions I made, their potential for aligning or mis-aligning with my pedagogical goals and intentions, and their implications for understanding decision-making.

Data Collection

The data for this study are my research journals, which I wrote in weekly, in order to understand my responses to diverse needs. The entries were reflective in nature and focused on how I implemented inquiry within my classroom, as well as the successes and challenges I faced with the diverse needs of the classroom. As I started to look through my journal entries, I started to find common themes. Each time I wrote, I saw themes arise based off what success looked like for me as a teacher when implementing inquiry-based projects and teaching. I would journal with each inquiry and also reflect on the ones that did not take off and why.

Based on artifacts and observations made throughout inquiry projects and teaching

situations, I reflected on the process through my anecdotal notes and journals. I engaged in reasoning about why I made the choices that I did when implementing inquiry based learning with the diverse needs of the classroom. I journaled regularly about the decisions I made through these projects, asking myself why, what was my intent, what worked and what did not, and where the projects stemmed from. After I started to review my reflections on my artifacts and observations, I then studied my notes, and the projects I implemented across the last three years and reflected on how I was implementing inquiry into my classroom. My reflections on my decisions as a teacher alternate with memoir based life writing, about my experiences as a student, and reflect on why I viewed learning as I have, based on my experiences as a learner. My data will also talk about who I am as a teacher and a learner, and how they are interwoven into my own practice.

I also looked at how I changed my way of thinking and practice as a result of my own experiences. As I wrote in my journals, certain questions came up for me about why some inquiry projects were easier to implement than others. I started to see topics emerge and was able to organize my decision-making processes based into common themes. I looked at my own commonalities and gaps within project expectations and how I have addressed them with the diverse needs of the classroom as another part and interpret my narrative.

Data Interpretation

At the end of my three-year process of implementing inquiry with the diverse needs of the classroom, I realized through my anecdotal accounts “themes”, in which I interpreted to mean “success”. I began to realize that I was playing around with different groupings within my journals and finding that, allowed me to shape what success looked like. I interpreted my data into a variety of themes:

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- New opportunities
- Trust
- The power of collaboration
- Student groupings
- Generating inquiry projects
- Assessment
- The importance of classroom management

Some inquiry tasks were more challenging to implement than others, which for myself as a teacher, made me go deep into my own practice as a teacher and learner to reflect upon changes I needed to make within my classroom. I also was able to pull from my own encounters as a teacher of the success I saw when implementing inquiry and the benefits it had on my own teaching practice in promoting student triumph in an inclusive classroom. Nicole Bocher (2013) also reflected this notion:

As I went back and began to re-read some of my journaling, I realized that I could pull out key pieces that would help shape my thoughts around the changes that we were contemplating and give me a stronger sense of purpose to lead this change (p. 9).

As themes began to emerge, it allowed me to feel that I was accommodating all learners in my classroom. It also left me vulnerable, going deep into my teaching practice and how I was using my journal entries to assist me in understanding how and why I was implementing inquiry.

Deborah Tidwell (2018) reflects this notion as well:

“What I find most fulfilling, intriguing, and difficult about this type of self-study is that it requires me to get very close to my own teaching and to my own thinking. It forces me to ask questions that are not always easy to answer, and this can be a painful process” (p. 40).

I interpreted my data through my own accounts by reflecting on personal teaching methods, how I implement different models of inquiry, and how I progress in the design from start to finish. I coded my journals and my data entry through written reflections and coded them into common themes. I look at my data through a lens both through literature of the different learning models as well as the lens of diversity. I consider how what I do aligns with my pedagogical decisions about implementing inquiry practices in an inclusive classroom. My interpretations use the journals to answer this thesis question and give insight into my own teaching practice.

Limitations and Value of Study

A limitation in this study is that it is only my experience and my data, so therefore biased. Due to this limitation, it will impact the kind of knowledge that I can create. I can only reflect on my accounts and can not use student data, which limits student voice. The knowledge that is gained through my study was collected through my data by doing weekly journals and asking myself questions. Through focused reflection on how my research journals answer my question and how I implemented inquiry practices with the diverse needs of the classroom.

To understand the data collection, readers must know that this study is biased, as it is only my account of how inquiry implementation was successful within my class. Although it is biased, it may still offer insights into potential decision making strategies in response to student need. My process of making decisions and choosing strategies might be of value to other teachers who have similar questions to me, when choosing different inquiry models to implement with the diverse needs of the classroom.

Even though this study is a reflective account on my learning practices of how to best implement inquiry within the classroom, it provides value to others, as it is a unique study. This study will allow other teachers to consider the benefits inquiry-based learning has to

support all students in an inclusive classroom. Other teachers, administrators and parents who may be perplexed on how we make decisions of what model of inquiry to teach with the diversity of learners, will come to understand through my research: ‘How it is I make pedagogical decisions implementing inquiry-based practices when considering the needs of all learners in an inclusive classroom.’

My perspective and findings are valuable because they might help other teachers to understand how teachers consider possible factors that impact challenges and successes in supporting all student abilities and needs in 21st century learning. It is also a valuable study to get parents to know the decisions teachers consider while implementing educational practices for their children.

Even though current legislation and policy in every province and territory advances support for inclusive education, actual practice is, in many respects, far from ideal. Our institutions are organized in ways that support the majority, and those students who are different from the norm have little choice but to try to fit (Lupart, 2009, p. 15).

This prevents us from examining and learning from examples of our own and others teaching, therefore, this study may help other educators; teachers, education assistants, parents and students respond to how is it we implement inquiry with the diversity in the classroom. A weakness of this study as James K. Rooks (1999, p. 32) stated, “with a longitudinal self-study such as this there is a danger of oversimplifying the process of data collection if it is discussed without any reference to the data analysis.” This was important to consider for my own research to be aware that my findings are just that, “my own” experience implementing inquiry and the discoveries I make as a teacher, will help shape my decision making in implementing inquiry-based practices with the diverse needs of the classroom.

Chapter 4 Findings

Throughout this process of implementing inquiry-based practices within my classroom over the last three years, I re-read and reviewed inquiry specific tasks I implemented, and started to look for common themes about what ‘success,’ looks like for me that align with my pedagogical goals in implementing inquiry. I was able to distinguish important themes of ‘success,’ while implementing inquiry. For the purpose of this discussion, the common themes I found occurring in my anecdotal notes were divided into sections, which I then used to interpret my data. I divided my findings into seven themes: New Opportunities, Trust, Collaboration, Student Groupings, Generating Inquiry Projects, Assessment, Teacher/Student Generated Rubrics and Classroom Management.

I also looked at how I changed my way of thinking and practice as a result of my own experiences. As I wrote in my journals, certain questions came up for me regarding why some inquiry projects were easier to implement than others. The themes then began to emerge and helped me interpret my data to answer my research question: ‘How do I make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom?’ Through my self-study, I reflected on the many different practices I used in my teaching, while being attentive to the choices I made, and those choices aligned with my beliefs about student learning and inclusion.

As I discussed in Chapter 3, it is also important to discuss my reflections on my past three years of practice, considering decisions I made, their potential for aligning or mis-aligning with my pedagogical goals and intentions, and their implications for understanding decision-making. My reflections on my decisions as a teacher alternate with memoir-based life writing, about my experiences as a student, and reflect on why I view learning as I have, based on my experiences as a learner and how they are interwoven into my own practice.

New Opportunity

Entering into the teaching profession, a teacher is faced with many questions: Teachers are introduced to a variety of different teaching models and methods with each school having a unique framework. Teachers are also faced with hard choices when it comes to accommodating all students' needs in the classroom and personalizing each student's experience. As I first started my teaching career I subbed for a year. It was a great experience as I was introduced to many different teaching models and philosophies, which helped me build my repertoire and make decisions about my practice as a teacher.

When I first had the opportunity to have my own classroom, it was at a public school with a specialized vision. The vision was unique as its premise steamed from Reggio.

Central to teaching and learning is the Reggio philosophy where our image of children-curious, exploratory and inquisitive-embrace personal passions and interest in students' quest for a better understanding of their world and life. Leonardo Da Vinci's seven principles guide us as we shift from a process of disseminating information to a process of inquiry and discovery in our effort to identify our students' competencies (Capitol Hill School, 2018).

As I first began to learn about this approach, it made me feel confident that the vision encompassed the children as the focal point of teaching. This philosophy resonated with because it allows students multiple means of expression. However, once I had my own class, I found it more challenging than expected. I would often ask myself questions in my journal writing: *How can I teach in a way that allows students multiple ways to represent themselves? How do I make decisions of what model best allows my students to grow in their learning with the diverse needs*

of the classroom?

When I was in elementary school I remember that the way I was taught was very different from the way students are encouraged to learn now. I remember writing everything by hand, as we did not have access to technology as much as students do now. We also had spelling tests every Friday and reading homework, which was something I actually enjoyed doing as a student. However, when it came to work being displayed in the classroom, it was usually on a bulletin board where everyone's work was represented in the same way. Going down the hallway was pretty bleak, and if anything was represented on the bulletin boards outside the classroom, it was usually artwork that was all the same. For example, I remember doing a poem in grade three, where they were all displayed on the bulletin board with our spring flowers and our poem. I never really felt proud of my work being up as a student for this project, because it was not original or unique. The project I was most proud of in grade three was my research on gorillas. I drew images and wrote by hand for this assignment. I was also introduced to researching on my topic through technology and books at school, providing me with more avenues in helping me gain further knowledge. I then put my entire finding in a duo-tang and I got to present to the class my research report on gorillas. I was able to share my work in my class in front of my peers; however it was not displayed for others to look through afterwards. Another student did a project that I was interested in on Leopards, but I could not even look at it after to read more about it as all of us took our research home after we presented. I remember being sad about it, thinking if only we could choose what was put up on the walls so I could share with others my learning and learn from my peers too. So you can imagine how I felt when I first entered the hallways of my new school, where I was going to have my own classroom for the first time. The hallways were not all the same as I had experienced as a student, where teachers chose what student work to put up, which usually all looked the same. Instead multiple

artifacts and a variety of students work including art, stories, mosaics and posters were all displayed which represented individual students' work of how they wanted to communicate their understanding. I could tell this school was different in how things were displayed; in fact they were completely different as a variety of student work honored student voice and inclusion.

As I first entered the school I was working at, I saw the hallways full of artifacts, student and teacher work, writing on the walls, artwork, sculptures and a variety of different pieces of work that supported the learning within the school. I knew walking down the hallways, that this was something different and something I was intrigued in learning more about. It represented each student's needs and strengths. I remembered back to the days when I was in school and it brought tears to my eyes of joy, that students were able to express themselves in a way that represented them. I thought to myself when looking at the work, if I was given this opportunity in school to re-create and show my learning in these multiple ways, my view on my learning and my story in school may have looked very different.

The school told a "truth" that I wanted to know more about. It was like walking through a museum, an exhibit that showcased the journey teachers and students went through to share their learning of the whole year. Student work was framed and organized in a way that unfolded the journey students went on in their learning. Different subjects and material were interconnected in all subject areas. Curriculum objectives and how they fit were also represented within the work through the process.

This inspired me, but also terrified me. As I reflected in my journal I wrote: *How am I ever going to be able to teach my students this process? How has this journey unfolded at this school?* I wanted to know more. I knew already from my own learning experience as a student that I wanted to shift traditional learning to become a journey for my students, rather than just an end product. But how will I know how to implement best practices with the diverse needs

of the classroom? I knew that inquiry was the route I wanted to go down to further my students learning from my own experiences; however, I was not prepared for the multiple entry points and diversity across students in one classroom. I knew I could teach every student, but as I reflected in my journal I asked myself the question: *How could I teach my students successfully so they will feel the power of this work and the benefits?*

When considering how new opportunities influence pedagogical decisions, particularly regarding the needs of individual learners, I have come to understand the importance in allowing students a variety of ways of expression to showcase their learning. By approaching new opportunities/learning situations with a focus on the individual students, I could consider how assessment/ self-expression used choice to reflect diverse abilities, as well as building learning relationships. Inquiry-based practices center around the individual strengths of students, allowing students to have a choice. “An essential aspect of the inquiry process is about encouraging children to express their theories and put forth new questions. This can be done through drawing, building writing, and oral expression” (Chiarotto, 2011, p. 65). Children are all unique and individualized, so as teachers, it is important to consider their unique qualities as we implement different lessons into our teaching practice to support all learners of the classroom. Being provided with the new opportunity to work in a school environment that took on this approach allowed me to feel confident that this was the answer to supporting inclusion in the classroom.

In our history as educators, we have assumed that a disability is located in the individual.

It is a profound shift in thinking and practice to consider, instead, that the environment we provide supports and that, where they are in place, the person will be able to participate fully both socially and academically (Katz, 2013, p. 28).

New opportunities for teachers to teach through inquiry allowed for diversity of expression

amongst students. When making decisions as a teacher essentially: ‘How do I make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom’, allowing teachers new opportunities for students to form multiple ways of expression was a part of the solution in answering my question.

Trust

In teaching, I understand that I must believe in what I am teaching in order for students and myself to be successful. The idea of any practice is to not give up the first time around and persevere and believe in the process. I had to trust that students would learn and realize that trying new things takes time and patience. I had to believe that students would develop a new skill set or enhance a skill set to a mastery level through the process of inquiry. However, how as a teacher, can I trust that the teaching models I implement are both going to be individualized and be successful with the diverse needs of the classroom?

Implementing new concepts or new ways of teaching and learning often involves risks. Accepting the risks and persevering with a focus on a learning goal is important for practice, change and teacher learning. In a grade six and seven practicum class, I had to plan a lesson to ‘explain different perspectives of past and present views of Canada and our ancestors.’ I had to do a lesson plan around Aboriginal Culture, where many of the students were Aboriginal. I did not feel completely comfortable in teaching this topic, as I was skeptical that I would not be able to teach it in an authentic way to my students. However, I knew that I had to persevere. It was important for my students to have opportunities to explore their culture and relate their real life experiences to our classroom learning. I remember that in my first lesson, I introduced the concept of stereotypes and asked what the students thought about them. The discussion became almost a debate back and forth with some conflicts in the classroom. After reflecting on the first lesson, I went back the next day knowing that I had to change my approach of instruction. I

spoke honestly to students explaining that although debates are good dialogue; it is how we debate that is important. I also changed my lesson plan to involve content from The 8th Fire TV Series on CBC, which talked about Aboriginal viewpoints and culture. Through an ‘Aboriginal Lens’, students were able to identify parallels of ‘Aboriginal Culture’ with other students in the classroom, and learn about perspectives of past and present views of Canada and our ancestors. A topic that could have been quite heavy turned into great dialogue amongst peers. If I discontinued it after day one’s lesson, students would not have gotten the rich dialogue and discussions that took place amongst all students on perspective taking. I trusted the decisions I made in the classroom, while also reflecting that I needed to make some changes around how the topic was presented.

In the Reggio process, the thinking is that, “Children are born with many resources and extraordinary potentials, which never cease to amaze us. They have autonomous capacities for constructing their own thoughts, questions and attempts at answers” (Gandini, Hill, Cadwell & Schwall, 2015, p. 7). As a teacher, having this image of the child in the back of my head was extremely important as it allowed me to trust the work I was teaching and trust that students have the capacity to understand the work and truly grasp it. There have been many times in my teaching, where I have questioned my instruction in implementing inquiry. My journal entries have read: *This totally did not turn out the way I hoped. Is this too hard for students?* However, I focused my mindset and believed in the process. For an example, when I did an inquiry project on Alberta’s past, I decided to do a collaborative process where each student made a quilt piece to tell a story. I was not sure exactly how the final product would look or if we could complete it. I, myself, never quilted, or knew of the challenges that come along with it, but the students thought of it, so I decided I would try and make it work. I figured out how to tie it with our learning intentions and the program of studies; in the program of studies for grade four students

were to;

Explore the geographic, cultural, linguistic, economic and historical characteristics that define quality of life in Alberta. They will appreciate how these characteristics that reflect people's interaction with the land and how physical geography and natural resources affect quality of life (Learnalberta.ca, Social Studies, Grade 4).

I decided to incorporate all these themes through different lessons and then make a collaborative piece for our Spring Exhibit of a quilt to showcase the learning outcomes in a unique way.

I was fortunate enough to have a resident artist work with us too, who was familiar with quilting. I had to learn myself in order to know the challenges that came with it first and then talked alongside my students to let them know of my own process. I discussed with them the challenges and success I faced. As I reflected in my journal I wrote; *What have I got myself into? I thought because it was paper quilting, it would be easier as I just had to attach different fabric materials onto the paper. The artist told me it was easy. If I cannot figure this out, how are my kiddos going to figure this out? I am spending a lot of my outside time meeting with the artist to learn how to do this and I am finding this more difficult than I hoped. The colour coding is way more helpful though why did she not show me this at the beginning? Colouring it in first, so I know my colours and then putting the materials on is way easier. This is how I am going to help my kids with quilting. I will have them colour in their paper copy first and then attach the fabric.* Students and myself thought out images of how we could tell the story of Alberta's past from what we have learned throughout the year and then constructed a quilt of art that shared our learning. I reached out to the parent community to have sewers come in and assist with this work. I was able to recognize it was something I did not have strength in, and also shared this with my students. In class discussion, I shared with my students how I had to

go through three different images before I understood it. I also let them know that once I was introduced to colouring the paper copy first, this approach made it much easier for me moving forward with making my quilting image. Being vulnerable and open to my students allowed them to appreciate the process more and allowed them to take a risk to learn something new themselves, just as I had. Students with varying abilities were all able to create a piece of the quilt. I modified some of the patterns for students requiring more support, by choosing different images in a more easy to follow pattern, to assist with the different skill sets. The end product of our quilt that we created was something students and myself was truly proud of. Although we all had different skill sets, when it came to this inquiry work, it brought us together as a community within our classroom. Students who had to research about their piece were engaged in the process as they brought it to life through their quilting. The quilt is a great example of inclusion, of how each student's contribution is individual, yet becomes part of a whole. "The early childhood educators of Reggio Emilia, Italy, teach us that the primary role of the teacher is as "researcher" whose job is to understand the thinking of each child" (Martinez & Stager, 2013, p. 43).

They were required to accompany their quilt piece with a write up and a story of what they learned and how it connected to Alberta's Past. We were able to cross circularly connect a unit of measurement and addition and subtraction, Alberta's past, planting and plant growth all through this overarching final quilt artifact that we made together. The whole process validated why you must establish 'trust'. You have to create a learning environment that involves trust with one another and trust within oneself. My belief that although implementing inquiry within the classroom requires work with the differentiated needs of the classroom, it is possible if you establish trust amongst your classroom and trust yourself. "Most intellectual life outside of school makes connections across disciplines. Indeed, it's hard to think of a career field or

profession that operates in isolation” (Krauss & Boss 2013, p. 68).

As I considered how this experience answers my research question, 'How do I make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom?', the 'Alberta Past' project offers a number of insights. The process of being vulnerable and being open with my students related to the differentiated needs within my classroom, allowed students to feel “ok” if they did not get a concept right away and to trust the process. They learned through my stories and my process, that I too had strengths and weaknesses. It gave the students the power to be open about how they did and reflect on their process. It even allowed students to know if their project was not completed in time, that this too was acceptable, as it provided students with a learning opportunity to plan for their next steps. “But it’s the job of every teacher to learn how to watch children for signs of thinking, and to point that child in the direction of deeper learning” (Martinez & Stager, 2013, p. 43). Students were open to the feedback I gave them along their journey, as they were well aware it was never a criticism, but feedback that they could add to their work to enhance it. Although every student had different ideas of how to showcase their work in some projects, the overarching essential question of what they were studying was the same. It applied to the different needs in the classroom, because it allowed for diversity in how they represented their work. So trusting the process as a teacher is essential in my own experience, in successfully implementing inquiry with the diverse needs of the classroom. Essentially: When considering how trusting the process helps to answer the research question, ‘How do I make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom?’, I have learned that students must not only believe in themselves, but teachers too. We must all have a mindset to allow us to grow. Trusting the decisions we make in the classroom, aware of the need to adapt for all

learners, contributes to our decision making and success.

The Power of Collaboration

“Professional trust and instructional cohesion, which are crucial for raising and sustaining achievement, cannot exist without commonly held beliefs among a staff.”

Routman, 2014

An important factor in implementing inquiry with the diverse needs of the classroom was working together with my students, colleagues and administration and feeling supported in my journey through inquiry. In the vision of Reggio, which our work stemmed from, it is believed “When the atelier, as well as all our school environments, are continually developed and used in purposeful ways, they transform our everyday life in school into a living manifestation of the richness of children’s potential” (Schwall, 2015, p. 79). In discussion of inquiry with staff, I was able to feel reinforced in this work. When feeling defeated or overwhelmed administration had an open door policy where I felt I could openly discuss this work and ask for clarification when needed. I was provided with feedback to help support me as a teacher in this process and given useful suggestions of how to implement inquiry successfully with the diverse needs of the classroom.

As I began this work in my teaching, an extremely essential part was the collaboration between students, teachers, and administration. In taking on an endeavor such as inquiry, it requires learning as a teacher how to thoughtfully plan out this work within your classroom. As a staff, we were provided with a book study and articles to help support this work. Our book study was; *In the Spirit of the Studio, Learning from the Atelier of Reggio Emilia* (Gandini, Hill, Caldwell & Schwall, 2015) and a useful journal about journaling we looked at was *Journals of Discovery, Incorporating art and creative writing into science journals leads to meaningful reflections on learning for both students and teachers* (Livingston, 2005). Having resources to

help us dive deeper into this work was essential in learning how to make decisions of how lessons were implemented and student work assessed through journaling. We met collaboratively as a grade team to discuss the book study as well as how we used journaling as a form of assessment and progression of students' progress.

We were able to talk about the process of inquiry openly as well as the challenges and successes we felt when implementing this work with our students. A conversation that often came up was the diversity of students within the classroom. I myself knew inquiry was a way to allow student voice and choice to represent their work. However, discussing with colleagues, I soon learned they too felt defeated at times as I did in terms of implementing it.

These experiences have made it increasingly apparent that traditional forms of schooling are no longer adequate for challenges of the twenty-first century. Faced with the presence of students whose cultural experiences and languages may be different from their own, and many others who may have experience barriers to their learning within conventional arrangements, education practitioners have to think about how they should respond (Miles & Ainscow, 2010, p. 1).

In my journal, I reflect on this as in one of our meetings we were asked to discuss two questions. 'Why do we do this work?' and 'How do we use journals as a way to assess our students?' I responded in my journal to the first questions that: *It allows all learners to feel confident in the work they do through modeling and practice. It is a tool that students can use throughout their life.* For the second questions I wrote; *I want everyone to think and use their journal effectively, however some students unless interested in the subject matter do not seem to put in their best work, and some students do not enjoy drawing.* We came back together as a staff and shared the challenges we felt with regards to implementing inquiry in our classroom and using creative journals as evidence to support students' work. In our inquiry work, we

commonly used ‘creative journals’ as a whole school. Creative journals were used to capture our work as teachers, as well the work of our students. We were taught how to journal ourselves, just as much as our students were. This was an important part to my learning process, as I was able to see how this was just as powerful to tell a story and represent knowledge. As a staff we spent multiple Professional Development Days learning how to journal and went as far as doing a couple of outdoor exploration tasks where we reflected and journaled on a topic, just as we might do with our students. Having the support from both the principal and vice-principal modeling this work had a huge impact on me and left me feeling prepared in pursuing this work. Having administration and other staff member’s encouragement, helped me learn the process, which was an important factor in my decision making with implementing inquiry in a diverse classroom. Not experiencing collaboration and ‘voice’ until high school and my teacher education training, I knew the value of knowledge I learned from others was essential in implementing my designs in the classroom as well as feeling confident in myself, when I added my voice to discussions amongst my peers. Staff members were able to give each other ideas of how to help students who required more support by sharing their own experiences with implementing inquiry, despite the diverse needs in each classroom. When considering my research question: ‘How do I make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom?’, I have come to recognize the value of collaborative teaching community to work together on projects, brainstorm ideas, and provide support to one another through challenges. Collaboration affirms that it is a crucial part in implementing inquiry as it challenges teachers to discuss multiple ideas together. The discussion with colleagues supports teachers with a wealth of knowledge through different perspectives adding to multiple ideas that teachers can then take away to help implement inquiry with students in the classroom in an inclusive environment.

Student Groupings

I know there is not one way to teach, as a student, I needed a variety of ways to show my understanding. I needed to be engaged in what I was doing and if I did not understand something, I would shut down or avoid it. One of my biggest areas I struggled with was math. I tell my students this all the time. I struggled until I met a teacher in college who taught me math, and made me feel confident by inspiring me to believe that I could be successful. She allowed me to show my learning in different ways and designed tasks where ‘we’ were able to express our learning in unique forms to share the same concept. She also often had us work in mixed abilities groupings, which allowed us to collaborate with one another and share our understanding authentically.

I was always taught beforehand in math, that mistakes were bad and that there was only one way to answer the question. In high school, I was placed in fixed abilities groupings, where I was in the low-set and students were well aware that students were in cohorts, based on their mathematical abilities. This made me feel discouraged as a learner, and slowly started to trickle into other areas, such as science. I began to doubt myself as a learner and was more self-aware that teachers had a preconceived view of how I would do, within their classroom.

As I began to try out practices to support diverse needs in my own classroom, such as inquiry-based learning, I began to think about decision making as part of my pedagogy and focused in on student groupings as one area that I found as a common theme through my anecdotal notes. I reflected on my feelings as a student and interwove them into my teaching practice of how to implement inquiry-based practices confidently, with the diverse needs of the classroom.

Throughout my journaling I have made many accounts that support this.

- *Students working in same skill-set of their peers in areas of strength seem to feel more challenged, however are dis-engaged when it is an area of growth.*
- *Students discuss more verbally when they are in mixed ability, allowing for a variety of different viewpoints and ideas shared more successfully amongst students.*
- *In inquiry work, grouping students into passions and ability groupings based on shared interest, encourage learning from one another as a next step.*
- *Students are open communicators with each other and provide honest feedback about their work*
- *Students are learning from each other and helping one another, who normally would not work together on their own.*
- *Builds relationship amongst students that may have not been evident before.*

In researcher findings around the power of students learning from one another, it also stated that, “Students will learn, they will invent, they will teach, they will collaborate, and they will share knowledge when it best suits their needs, interest and style” (Martinez & Stager, 2013, p. 25).

This began to help me look in the lens as a teacher of how I implement inquiry with multiple skill sets within the classroom.

I found that the only time that students did not succeed in mixed ability groupings was for certain math tasks requiring higher level thinking, such as in my design for creating an Outdoor Space Project. Students were asked to use perimeter and area and outcomes from the grade four curriculum to help them design their outdoor space project. The ones that did not feel successful in math, contributed little or no voice and were hiding their thoughts about what they were learning, by letting others take on the work. I knew I had to change this, so I then had to be creative in terms of how I mixed students, particularly around math in inquiry design. In my

journal I accounted the day's work: *As I give student opportunities to work in different groupings. I had them write in their own books the questions and asked them to show evidence of how they got to the answer. After looking at student work through their notebooks, I came to realize they actually did not understand the concept at all. Some students did not even have anything written down. I then decided to use large chart paper which I laminated, split up into four sections with a bubble in the middle for the question. Students each had an area to write as well as were using different whiteboard pens. As I walked around I could see students' progress and understanding right away, as it was large enough for me to assess in the moment.*

Having students work in this way, instead of their notebooks allowed me to make decisions in 'real-time', so I knew to re-teach a concept, based on how many students were understanding with the differentiated needs in the classroom. It also informed me that I needed to make the learning connected to real life, as some students were just memorizing the steps, but not knowing what the purpose was or what the perimeter and area actually represented. I could really understand who was getting it or who required more support, but needed to change my decision making in implementing the concept of perimeter and area, in terms of adapting to all students needs in the classroom.

I had students do hands on activities where we took different forms of measurement to measure the field and different playground equipment. I connected planting to the task as well, which also incorporated math. Students learned that different plants required more area to grow than others. Students actually got to plant different items in the garden and once they started to compare their schoolwork to real life practices, their confidence and voice that was not normally heard was changing. Students who normally would not participate in class discussions were contributing their voice more. One of the essential questions that I purposed to students in this work was: 'How does Math relate to nature?' We read the book *Growing Patterns Fibonacci*

Numbers in Nature (Campbell, 2010) as a hook to start the lesson and went on many community walks to observe what we saw in nature and the connection with math. We then discussed as a class, questions that students came up with. One of the questions that came up was ‘Do plants need space?’ We looked at different plant packaging labels first, to figure out what we could plant in the least amount of space. For instance, we learned that cauliflower takes up more space than a tomato plant, as well as growing horizontally versus vertically. With the help of our garden expert, we actually began to grow our own garden through the process of polyculture, which is the act to grow many vegetables and crops in one area. We also brought in the past of our ancestors and how they grew food and made sure that we included the three sisters (squash, corn and beans) in the crop. Students used this method to plan out their models of their outdoor space and how much space it would take up in their models as well as in our actual gardening that they took part in outside. Their learning became guided by their questions, which allowed all learners to be part of the process and feel more confident in applying their math in different ways and connected to the concepts. This authenticated my feelings in my decision-making in inquiry-involving math, as it supported all learners of my classroom, since they all had a role in this process. When considering my research question: ‘How do I make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom?’, I have come to realize the value of mixed ability groupings, individual needs and support, hands-on, and student directed learning, as it allowed for differentiated instruction while attending to consistent learning outcomes for students. It shifted students’ mindset who were originally experiencing challenges with the concept, to being open to learning the same concept in different ways and in different groupings. Mixed group abilities fostered a trusting learning environment where students valued others voices and learned the power of peer feedback.

Generating Inquiry Projects

“When we talk about a “project,” what we mean is work that is substantial, sharable, and personally meaningful. Some projects may take a class period or two to complete, while others may require an entire term” (Martinez & Stager, 2013, p. 57).

Essential question. To start an inquiry project and design, it has to start from an essential question. It has to be unique and a moment of “ah-ha” to really begin the process. As I implement inquiry projects in my classroom, some projects can be a day lesson, a week, a few months or even years, depending on the outcomes I want students to gain. “Inquiry is an approach to learning that is directed by questions, problems, an hypothesis or a challenge that individuals and groups of learners work together to address” (Kozak, Elliot, 2014, p. 63). It would depend on the depth, different branches, and directions the question could turn on the length of the ‘inquiry.’ Every inquiry that is rich and rigorous involves essential questions. “A good essential question is open ended, thought provoking, calls for higher order thinking, points towards important transferable ideas, raises additional questions, requires support and justification, not just the answer, and recurs over time” (McTight & Wiggins, 2013, p. 3).

In my work, when implementing inquiry, I learned to ensure that my essential question took on many of the attributes that McTight and Wiggins (2013) expressed, as this was essential in my decision making when introducing inquiry within my classroom. I found some questions I posed to students were received better than others. The best essential questions came up when I had a video, book, or topic, which I then would accompany with an overarching question. I would have students write on sticky notes what they wondered more about or what additional questions they had. Students would put the questions on the board and then we would share collectively as a group what they came up with. I also had a question board in my classroom that had headings of what, where, when, why and how, where students could add information and

questions they had as we dwelled further into the inquiry work. In our unit about plants, we started off with a question: ‘How do plants shape our life?’ Students were then asked to write their opinions as well as questions they may have. They were asked to write two of their best questions and put it on the board. In my journal, I wrote some of the students questions to help with my decision making in where I would go next with the learning. *Do plants grow in space? Why are some plants poisonous? How do people come up with the names of plants? What is happening to bees and why are they becoming extinct? Where did plants come from? How was earth created? When do plants grow best and why? How many plants are there in the world?*

At times, some questions fit best with my planning and pedagogy than others. This is mostly because some of the curriculum objectives are hard to teach in an inquiry-based approach due to specific parameters around provincial learning outcomes that students are required to achieve. For example, when I tried to give students an opportunity to answer an essential question around math and number sense, it was not received with many questions for students to come up with answers to, because I myself found it hard to teach it in a different way than just giving them guided questions. Math is a subject area that I found was the most challenging to pose as an essential question. Most questions that I posed in math were leading questions or open-ended. On the other hand, when given a topic to teach that was more open ended through curriculum outcomes it allowed me as a teacher to create knowledge and activities with multiple disciplines being covered. The questions encompassing ways to connect numerous subject disciplines seemed to be the most beneficial to my teaching, as these allowed each student to focus in on an area of where they felt successful. This is why when I finally came up with the essential question of, ‘How does math relate to nature?’ It was one of my ah-ha moments that made me feel successful in implementing inquiry with the diverse needs of the classroom. In my journal entry I wrote: *Today students were excited about math. They came up with a series of*

answers when I posed the question to them 'How does math relate to nature?' Students were asked to do a Mind Map in their journal and include answers and images that answered this question. We had been mind mapping for a while, so when students were asked to show their understanding of this concept in this way, they were excited about it. Normally, students were not asked to draw in math, so this was something different for them and that they were eager about. It allowed for multiple projects and directions and gave an opportunity for all learners to be part of the work, although the product was very unique in how it was represented.

Global citizens. As I became more settled within the school and this process, I was able to see the positive impact on students that inquiry had, in making student learning more personalized. Within the first year I came to the school, our exhibit was Kids go Global, which was related to how to be a global citizen. Students engaged in work that was around curriculum objectives all year, then split up into multi-aged groupings in areas where students could learn topics in more depth. My group was about history, war and peace and distracted driving. As a teacher and making decisions on this inquiry topic, it was important that I made decisions with aesthetic judgment as it was a sensitive topic with the multiple age groupings and diversity amongst students in this group. I had many different avenues in which I designed this topic and was perplexed when making decisions to link all of the topics together. *The idea of opening my students' eyes around these heavy topics is something I have to do with thought about my decisions in how I implement. I will have to pre-choose reading materials, especially when students have access to computers and set up strong guidelines of images and sites to use. I will only allow students to use computers for writing up their information and guided research. I will have only the grade five and six students work on talking about distracted driving, where they then will present the information they learn to the younger students in a kid friendly way.*

Finding ways to teach this topic for all ages was challenging at times, but I approached

this topic through kid appropriate literature, artwork, storytelling and having a friend of mine who was in the Afghanistan War come in and speak. I posed the essential questions to promote discussion with my students, how are war and peace connected? I also posed a question, ‘Do we have a choice about decisions we make in relation to distracted driving and being in war?’ We made a web together of other questions we had that we wanted to explore as a group. Students began rich dialogue with one another of why other countries have war over peace and how all of these topics together encompassed the theme of decision making. As this work started to unfold, I shared with students a video of shadow art that I had seen on Britain’s Got Talent (Attraction Shadow Theatre, BGT, 2013). Students became aware that this was a rich way to tell the story of war and peace without showing violence. We were fortunate enough to work with a theatre company to help us address these heavy topics, to tell our story of decision making. Students began researching and helping one another in creating scripts of how we can bring awareness to these issues. The criteria of this assignment was using research through teacher selected materials, and literature such as the story of, *Sudako and the Thousand Paper Cranes* (Coerr, 1977), which then inspired us to come up with a way to represent Canadian soldiers who lost their lives on D-Day. I shared with students a school called Whitwell Middle School (Whitwell Tennessee, 1998) and how they used paperclips to show the tragic loss of life that took place in the Holocaust. We too decided to use paperclips to represent the amount of soldiers who had died in Canada in WW2 at D-Day, in honor of the soldiers who lost their lives. Students worked collaboratively with a residential artist on making a life size sculpture of a soldier, named ‘Freedom’ which we then decorated with paperclips. Students strung together over four thousand paperclips and looped them around the soldier, which we then displayed in our exhibit that was unveiled in the spring. As I gained more and more knowledge about how to implement instruction such as this with the variety of abilities and ages within my group, my confidence and

ability to teach students in this way grew. Students were eager to help one another and older students would help younger students with reading and writing. Students requiring more support were able to show their understanding through IMovies they created and posters to bring awareness of the impact decisions have. In my final reflection on this work to put up on the wall I wrote: *Throughout life you are faced with making important decisions that look different for everyone depending on where you live, age, priorities and what you believe in. As a teacher and in my life I am faced with important decisions everyday. Through our Kids Go Global initiative, I have learned just how fortunate we are to live in a place that allows us to have voice and choice. Our Kids Go Global Group discussed issues of War, Peace and Distracted Driving. All topics at first were hard for the students to understand why they fit together, but with deep discussion and brainstorming we realized that they all had to with 'How our decisions impact the world.' We learned that some people in the world are not given the same opportunity as we are to have a voice and choice, but we also learned that bringing awareness to these issues and showing our support was a step in the right direction in promoting peace and having people question their own decisions. "The hardest thing is not making a decision. It's thinking about the results of what you have decided"(unknown).*

This work aligned with my pedagogy of how I implemented inquiry with the diverse needs of the classroom. Students were able to represent their learning about decision making through multiple artifacts and together we told a story about decision making through our shadow art including war, peace and distracted driving. When considering my research question: 'How do I make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom?', I saw the connection this work had to inquiry and Project-Based Learning, as it allowed multiple means of providing information (video, drama) to help them answer the question, and multiple means of expression

(I-Movie, art) to demonstrate understanding.

Outdoor space project. Another project that is still ongoing in our inquiry work with my students is our Outdoor Space Project. When I first introduced this project, we did so as a team across all grade groupings. I never expected this work to carry through into three years of work and students ideas to actually come to life. As I normally do when starting off with my students I started with showing them the learning outcomes and objectives we would be looking at. We created a teacher/student-generated rubric of what was expected and alternated through mini lessons and project work that inspired them in their unique skillset. Questions that came up for me often as I reflected in my journal with implementing the ‘outdoor space project’ were *time, materials, cost, and curriculum objections*. I reflected; *How am I going to make this work authentic, with all of the other subject areas I still need to teach? How am I going to display all the different materials in my room without being a distraction? How am I going to purchase all the materials I need?* We are required to teach all the programs of study to our students and it limits our ability to work on projects over long periods of time. As teachers, we have to make sure we are teaching students all of the criteria that expected of them to learn in order for them to move on to the next grade. We also have to provide students with different learning materials and outlets to express their learning.

Materials become languages when, through a child’s relationship to materials unique capabilities, meaning is created and communicated. In this process the layer of the teacher is layered and multifaceted. Frameworks for learning can be designed that engage children’s use of materials, promote open-ended discovery, and, over time, develop understanding of the expressive and communicative potential of materials (Gandini, Hill, Cadwell & Schwall, 2015, p .52).

I was trying to find a way to make this real and draw on my own process of how I made the

decisions I did with the diverse needs of the students. How am I going to have every student being able to be involved and connect all of the curriculum connections while creating engagement?

As a learner myself in school, I was way more inspired in the work that I was interested in. I remember doing a science fair project in grade seven, where I studied roses. I was putting in different amount of sugar and seeing if it had a cause or effect on the lifespan of the flowers. I researched it and I actually got to grow the flowers and then presented it through a trifold of data I collected overtime. I remember that we were all allowed to pick an area of research that interested us. So it brought me back to this moment of grade seven and remembering how excited I was, and I asked myself: *How am I going to implement this environmental project in my own classroom and create the same enthusiasm with my students, while adhering to curriculum outcomes?* In my journal before starting this unit I asked myself; *How am I going to assess and allow student choice when trying to cover the overarching theme of environment within curriculum objectives? How am I going to adapt the tasks for learners requiring more support and most of all have students interested?* “Theme based learning experiences have a central topic that links learning. Learning centers or activities in thematic integration usually stand alone; however opportunities to link them can be identified and the teacher can facilitate these relationships” (Kozak & Elliot, 2011, p. 24).

To start off this project we had students design first in groups an outdoor play ground and learning spaces that they would like to have in 2D; once students did this task, they then moved on to making actual models. Again, the entire cross-curricular connections started to unfold before my eyes. “Forman emphasizes that it is important for children to find the most effective material to express or represent an idea or concept, and then to learn to make creative compromises with the materials as their work develops” (Gandini, Hill, Cadwell & Schwall

2015, p. 52). I was able to bring in area and perimeter, where we actually scaled the school ground with meter sticks to have an idea of how much space we had to work with in our models. I was able to allow extension activities for students with gifted abilities to challenge their math skills, as well as modify projects for students requiring more support. One project in particular was done through Lego, providing a less challenging, manipulative based way of demonstrating numeracy concepts. As I looked at the variety of final projects, though I was aware of the different skills and abilities of students who completed them, each clearly demonstrated a student's thinking and ability to both answer the question, and apply their own abilities to achieving success. It was the moment that I knew that the students believed in this work and that everything I was teaching was interconnected. In my journal entry I wrote: *The variety of projects students came up with was exciting. Some students added acorns in their project so it blended in with nature; some students had desks made out of recyclable materials. It was like the thread of a spider web taking different paths and directions together, but then constructed into a beautiful work of art once all put together. It was sharing ideas with one another that contributed to the overall success of the work and interconnecting curriculum objectives within the project. This allowed us more 'time' as it allowed multiple concepts being taught at once. It also freed up 'costs' as many of the materials we used were recycled or from nature.* As I thought back to my research question: 'How do I make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom?', I was able to recognize the 'power' a question had and the different opportunities it allowed students in expressing their learning. It allowed me to be confident in my decision making when seeing the product and artifacts students produced, while adhering to curriculum objectives.

Diverse learners. Students who are not neurotypical in how they learn need to be provided with differentiated instruction to accommodate their learning needs. “Capitalize on the students’ strengths. This is more likely to give the student a feeling of success and lessen and feeling of inadequacy that flow from a disability” (Sousa, 2007, p .37). I found inquiry was a positive solution in helping these students express their understanding. For example, I had some students who could not read and write; however they were amazing artists. They used art to tell the story of their learning and their process. When it came to students celebrating their success and knowledge in an area they were confident in, I would develop a plan with each of these students to have them feel more at ease. I would also have students break the work up into more manageable chunks, so they were not overwhelmed. Sometimes this work could go on for hours, so I would make sure students were not over stimulated or overworked, by providing movement breaks, or other learning tasks not related to inquiry

Brain research shows that movement opens neural pathways and retrieves memories.

More students today need movement to focus. Keeping them in their seats for long periods of time may encourage some students to fidget, squirm, or get up on their own, typical signs of ADHD-like behavior (Sousa, 2007, p. 58).

When writing students’ Individual Program Plans (IPP’s), I would also identify students’ needs and how to use the strategies to help students feel successful in their work in the classroom. An IPP, which I might write for a student could look something similar to this for a student with a learning disability. *An example of an IPP: March 2017. In Literacy we are working on applying a variety of strategies to confirm predictions when reading a variety of short stories, which will help support our inquiry work on Tunisia, Ukraine, India and Peru. Students are expected to monitor their understanding, by confirming predictions based on information in text. Students will work in small groupings where their teacher will read the story to students and then*

individually the students are to complete the task using Read and Write or a video recording where students can verbally express their understanding. Students should be working on inferences as they read, drawing conclusions and actively connecting them to world and self. For example when reading a short story, students are asked to summarize, predict, and then self-assess if their prediction was accurate using information from the story to support their ideas to show understanding. Students are given a framework to answer these questions and provided with teacher modeling to help through this process and a variety of ways to express understanding. Target: Students when doing inquiry work will use a variety of forms to show their understanding and will be provided with reading books at their level. Teacher Will: Provide small groupings for Guided Reading when appropriate, Work on their sight words, help students learn what sounds go with which letter combinations; provides opportunities to use read to text when working with computers; provide different ways for students to express their understanding. Students will: Work on recognizing frequent sight words, use books with pictures which will help students decode, break words into syllables, use information they have read and talk with teacher about how to best represent their understanding.

Having clear expectations as well as modification and adaptations was a key component in implementing inquiry successfully for students with the diverse needs of my classroom and making sure to use student IPPs to help students in this work. I would make sure that ideas and modifications were introduced in IPP's to help students in their everyday work. As a teacher, I would utilize the information from their IPP's to help students requiring more support as well as any students who needed additional modifications and adaptations. My decisions and design were thought out with these students, through teacher student conferences, continual feedback and check-in's. I was able to help modify assignment tasks for students with a variety of skillsets, and have them involved in the process. Of course, I encountered challenges and

especially when it came to teaching the diverse needs of all students in the classroom; however, I knew that if I implemented targets for students that allowed students multiple ways to express their understanding, I would be successful when making my decisions in implementing inquiry within my classroom. Essentially: 'When considering how is it I teach in a way that allows students multiple ways to represent themselves this helps to answer the research question: 'How do I make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom?' Diversity amongst learners exists in most classrooms and it is clear the importance that modification and adaptations have in allowing students to feel successful. Knowing when modification and adaptations are necessary for all of my students was essential in my decision making to allow student multiple ways of expression to showcase their learning through inquiry.

Overall, through the different examples of inquiry projects I implemented, I saw my decisions were of value to students as they supported all learning styles. Each inquiry project allowed for students to form an essential question and then interpret the question into an area of interest that they could then research in further detail. All assignments allowed for hands-on opportunities for students and connection to real life practices. As well, students were able to work collaboratively to learn about a particular concept, while being asked to think critically in how to answer it. With teacher guidance and mini lessons, students became the leaders of their own inquiry. This allowed me to feel successful that I was adhering to all students in the decisions I made when implementing inquiry in an inclusive classroom.

Assessment

It is important when teaching inquiry, that there are still teacher directed lessons to help support students' success. It needs to be modeled and scaffolded in a way that allows students to gain confidence in the process. Having a whole school modeled this way, allowed for a

continuum of student learning from year to year, as it was a school wide direction.

“Like a mirror, documentation reflects our practice and our theory. Like a beacon, it lights the widening path of investigation. Documentation allows us to look at children’s thinking through representation, conversation and play” (Oken-Wright, 2001, p. 5). As I reviewed my different inquiry designs in the classroom over the past three years, I began to see the improvement in student work. I suspect that this improvement was partially due to me also modeling my journey through each inquiry task we did. Through our exhibit on India, I created a documentation panel that showcased my own learning as a teacher. A documentation panel was a way to capture the journey of the work students and teachers went through, which was displayed for students, parents and teachers to read. It was also used as a form of assessment.

Documentation panel. In Reggio:

A documentation panel makes the students’ learning visible and breaks down the isolated classroom, showing the rest of the learning community (other teachers, students, administration, parents, etc.) the thinking processes that are happening in the classroom.

Documentation panels are an important part of a well-balanced arts-integration approach as knowledge is never verifiable through listening or observing alone. The panels help students revisit their ways of making meaning. (Northeastern Illinois University, 2012).

Documentation panels are an elevated version of assessment to show progression of work over a period of time. Documentation panels provide evidence into student work of ‘inquiry’ and teaching practice. A project I did with my students called ‘A Journey through India’, was split up into writing, supported through pictures and student work on a documentation panel. As an introduction on my documentation panel I wrote: *As we embraced our new and vibrant classrooms this year, we observed the rich tapestry of cultures that represented our young learners. From local families to those arriving from abroad, students were eager to share*

stories of their traditions and cultures. It was with great excitement that we explored our world map to find out the geographical locations of each child's homeland. Not only did we develop international learning in the classroom, we also experienced their passion for learning firsthand. Streamlining the curriculum to four diverse communities of India, Tunisia, Ukraine and Peru, students investigated how geographic, social, cultural and linguistic factors affected quality of life. Enthusiasm was palatable, as students became architects of Ukrainian castles and Easter eggs, creators of Tunisian mosaics sand art; actors and musicians representing the ecosystem of the Amazon Rain Forest, spiritual yogis, and chefs of local Indian cuisine. Rigorous, authentic projects allowed them to broaden their cultural lens.

The next step in my documentation panel was to introduce myself as a teacher and the progression of our work: *We have been working really hard this school year learning about communities and cultures all over the world. While keeping within the curriculum areas of study for grade three and four we started the year off by looking into our own culture and where we came from. This allowed us all to feel a sense of community in the classroom, as well as an opportunity to get to know one another. Students explored a country of their choice and studied different landmarks of that country, while comparing the similarities and differences between their country of choice and Canada. They represented their work through artwork making an alphabet for our classroom with all the twenty-six letters of the alphabet for each country. For example one student chose "I" for India and "C" for Canada. They then shared their research and told their story to the class. It was great to see the students connect with one another.*

Throughout the year students have been learning about India, Ukraine, Tunisia and Peru. Students looked at similarities and differences between the countries to Canada such as looking at the way students go to school, how people vote, the geography, growing food, customs and traditions. Students looked into different types of musical instruments and dance within

those countries too and once they learned all of the information of the four countries, they started to represent their work in a variety of ways. Some of the ways students learned about these countries were; videos, books, teacher/student lessons, research and guest speakers. Students were then instructed to create a project with the help of a rubric to show their understanding of the four countries. Students represented their work in multiple ways and presented to all three of the classrooms to show their understanding of the four countries. Once the introduction was done, like my students I would write the process of this work; I reflected and wrote: In preparation for the spring exhibit, students began to focus in my group about India. They explored in depth about India, including the geography, music, religions, custom, food, culture and art. Collaboratively students each made a Mandala, participated in making Indian Traditional Cuisine, Yoga, and other forms of expression to share their knowledge that represented them.

At the very end of a documentation panel, it is common to talk about ‘next steps.’ For this work, I wrote: *As the third exhibit I have been involved in with this school, students and myself have become very familiar with expectations and the rich learning that is achieved through this process. It allows students multiple entry points to showcase their learning as well as reflect real life practices within their work. “Children who see their own work and thinking about documented may be inspired to revisit their experiences, to go deeper into their ideas”* (Wright, 2001, p .5).

To model my documentation alongside my students was very important in helping me make decisions in my practice of inquiry. It showcased the multiple entry points of the work and the various forms of representation that students were able to express based on the theme of ‘A journey through India’. As a teacher, when making the decision to navigate into the question of: How do communities and cultures share common parallels? I never expected the

multiple directions of student work that would be unveiled. When considering my research question: ‘How do I make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom’, I saw the link that modeling my own experience of teacher and student progress through a documentation panel had on this work and Reggio specifically, as it allowed one outlet to provide evidence to parents, staff and students of the purpose of our work. This work allowed for differentiated learning for students, personalized research, and modification for students requiring more support. Each and every student’s work was represented in this process. The power of this work took on numerous avenues of providing information (video, drama, script writing, performance) to help them answer the question, with multiple means of expression (I-Movie, art, stories, books and artifacts) to demonstrate understanding.

Documentation can provide evidence of learning not captured by most standardized tests, like students listening to and learning from each other, using their imaginations, thinking critically and creatively, developing a sense of esthetics and emotional understanding, and understanding what it means to be members of a democratic society (Krechevsky, Rivard & Burton, 2010, p. 69).

Student/teacher generated rubric. When implementing inquiry, it is also important to understand the power of assessment. Both formative and summative assessments are ways to document learning and have as part of the process. Just as document panels are one form of assessment supported by Reggio practice, when doing inquiry work you must have multiple forms of assessment of student learning. In my journal, different assessments I used when making pedagogical decisions when implementing inquiry were: *Ticket out the door, thumbs up thumbs down, KWL charts, What do you notice, what do you Wonder, observations, checklists, projects, presentations rubrics, peer feedback, self assessments* just to name a few. To choose

a form of pedagogical evidence that aligns with student assessment is something that teachers often struggle with implementing.

Learning intentions are more than a standard. There have been far too many misguided efforts that mandated teachers to post the standard on the wall. Learning intentions are based on the standard, but are chunked into learning bites. In too many cases, the standards are not understandable to students. Learning intentions, if they are to be effective, have to be understood and accepted by students. (Fisher, Frey & Hatti, 2016, p. 28).

Including students as part of the process of deciding how they are to be assessed is important. The process of student work is sometimes more important than the product. They have to be accountable and be able to monitor their own progression through their work. This is something some students with teacher direction and practice can do independently. However, students requiring more help, must be communicated with so they can feel successful and are clear of the expectations.

As a student myself, I always wondered if what I handed in to my teacher was good enough? Had I put in enough work, or did it need more? In university, when I first started in my psychology degree most tests were multiple choice. Often while writing tests, I questioned my answers, as I would over think the question or at times be confused with the way the answers/questions were worded. Although, some teachers throughout my school life were more influential than others when it came to feedback, being involved in the process were the areas I succeeded in. A university class that I participated in, in a challenging subject area for me, I was successful in this class, because I was given the rubric as an assessment criterion before the class had even started. Because the teacher designed a rubric of what was required, I was able to follow with ease and go at my own progression. I knew exactly how to get perfect,

basic or below average and was able to show my understanding of concepts.

Students and myself set out teacher/student generated rubrics in class, so they knew exactly what they were striving for. Students were able to attend to their own learning from following the rubric of what was expected. This allowed students to learn from one another and take ownership of their learning and also freed up my time, so I could assist students requiring more support. Each day I would put the learning intentions on the board with pictures and words and split it up into more manageable chunks for those students requiring more support so they were not overwhelmed. The off task behavior I saw at times, began to become calm and engaged.

So why is an assessment an important piece of this inquiry work when considering: ‘How do I make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom?’ I recognize that it is a way for students to self-assess, be provided with ongoing feedback to enhance work, and validate evidence of different criteria that can be used against report card grades and curriculum outcomes. Also, when assessment is designed properly, it allows creative ways to come at the same project. Students are also able to self-assess and peer-assess, which holds them accountable to their work. Whether students choose to document their learning through document panels or artifacts, teachers modeling the process and giving students the expectations of their work is at the heart of the work, to allow students to feel successful.

The Importance of Classroom Management

The hardest challenge I faced when implementing my different designs in inquiry was responding to the variety of learning styles amongst the learners in the classroom. I also faced challenges when dealing with classroom climate, resilience, self-esteem, materials, noise, and what I would do as a teacher when students encountered roadblocks in their learning. As I

thought of how to implement inquiry successfully with the diverse needs of the classroom, a huge component of it being successful was establishing classroom design that allowed for creativity, classroom rules, norms and expectations of the work.

Resilience. Resilience is something that each student needs to build on so when things become challenging they can get back up and try again. It is essential to create a classroom environment where students feel they belong and are open to trying new things. In inquiry, the process does not always come naturally for all students, as it requires deeper thinking. I chose the Circle of Courage, (Brendtro, Brokenleg & Van Bockern, 2009) to use in my classroom as it was a board initiative as well as a school directive. I also used Zones of Regulation (Kuypers, 2005) for my students, as it was something I had read a lot about and was something I felt helped my students in regulating their behavior and schoolwork. Having the framework of Circle of Courage and Zones of Regulations, within my classroom supports the idea of resilience and perseverance, which is what each student needs. “When professionals are told they are expected to build positive cultures in schools and child-care agencies, they are often perplexed” (Brendtro, Brokenleg & Van Bockern, 2009, p. 57). As I was implementing inquiry with the diverse needs of the classroom, I experienced resistance at times from students when feeling the work was too hard or they were disinterested in the topic. This resulted in student behaviors and off task activities for some students. This impacted me in terms of my decision making as I began to question if this work was a right fit for some of my students. In my journal I wrote; *Today I had many students in the classroom that were not engaging in the work. I go on to discuss off task, destructive and emotional behaviours that resulted from frustration and I had one student cutting random paper into pieces, another using a computer not for research, but playing games, and had one student crying because they needed a glue gun to help them with their work and there were no other glue guns.* When reflecting on my

notes, I realized it was not necessarily students being disinterested, but clearly these students needed more support and help in how and what they wanted to create to showcase their understanding. In my journal, I wrote out ways in which I helped these specific students such as re-designing plans with students, frequent step by step check ins, and used common language from Zones of Regulation. *The student who was cutting random paper I sat with and redesigned a plan with them so they could do the work step by step. I would also have the student frequently check in with me once each step was completed, and use common language from the Zones of Regulations, such as are you in the green zone? Which meant ready to learn and stay focused. I would also ask the students: Are we showing mastery, independence, belonging, or generosity today? What is your goal in this task? Student would respond with one of the four responses depending on their goal I had set, which stemmed from the Circle of Courage. I would often remind students to get back into the green zone and show independence and generosity to their classmates, when feeling frustration around a task they were behind in, or not being able to start due to having to wait their turn at a glue gun station.* As I started to address the concerns for students one by one in the classroom, I noticed students' resistance shifted to resilience. They were able to use my suggestions and independently solve their own problems through common language, such as Circle of Courage and The Zones of Regulation. I chose to use this with my students to help regulate student behavior and work ethic as it promoted resilience.

Self-regulation is something everyone continually works on whether or not we are cognizant of it. We all encounter trying circumstances that test our limits from time to time. If we are able to recognize when we are becoming less regulated, we are able to do something about it to manage our feelings and get ourselves to a healthy pace. This comes naturally for some, but for others it is a skill that needs to be taught and

practiced. This is the goal of Zones of Regulation (or Zones for short) (Kuypers, 2018).

A memory I have of resilience was when I was working on an inquiry project with my students where we were building an igloo out of milk bottles. It was a long thought out process with students and once we were ready to assemble the igloo, it became more challenging than anticipated. The glue was holding some milk jugs, but not others, and the project ended up not being ready to display when it came to our Winter Market Evening in December. I was disappointed that it did not work. However, I reflected in my journal that I often would also use the language from the Circle of Courage with my students *communicating to them in the project at first I was feeling in a yellow zone, but seeing how we all came together to help see the project differently, you have now put me in a green zone*. All of the kids in my group were showing me resilience, which then inspired me with help from a colleague, to look at our igloo differently. We decided to write a poem instead that talked about how the environment and artic is being affected through global warming, and wrote a piece that brought awareness to this issue, by showing our disassembled igloo. In this work it is important to note, students were also studying global warming so it was a natural fit to add to their work. Students and myself showed resilience in our work by turning our original project that did not work into something else. This work connected with my pedagogy of how I implemented inquiry with the diverse needs of the classroom and my decision making as a teacher. Students were able to look at their original plan and change their perspective about the purpose of their artifact. It allowed students to learn from their failures and come up with a different perspective. It helped in my decision in implementing resilience based strategies, as we used common language to support one another.

Self-Esteem. Another roadblock I faced with teaching inquiry was when to interfere when students were exhibiting frustration in a project due to being distracted or disinterested versus being disruptive intentionally. I would have some students that would be completely off task and in turn become disruptive purposefully, while others were being disruptive, because of lack of understanding of what they were supposed to do. In my classroom and my anecdotal notes it was important for me to recognize when a student was feeling frustrated and needed support versus when a student needed to be challenged to go deeper.

A Reggio term “loan” is a concept that allows teachers to “share an idea or information, to a child that is frustrated” (Baker, 2015, p.146). As a teacher it is important to know your students, fostering trust in the process. Students requiring more support are given suggestions or “loans” to help them feel successful in this work. A question that would frequently come up for me through this work that I journaled about was behaviours. In my journal I reflected, *How can I have students be open that errors are part of the process?*

When considering how Zones of Regulations and Circle of Courage helped to answer the research question: ‘How do I make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom?’, it is evident that I needed to create a system within my classroom where classroom norms and expectations were discussed, when implementing inquiry in my classroom.

I realized quickly if you do not foster a learning environment that allows for students to feel supported by one another, then student voices and ideas can not be developed, which creates

roadblocks for student learning. Making sure your classroom is set up in a way that allows for creative learning to transpire is essential to implementing inquiry, not just in design, but in terms of feeling connected as a community of learners. “Young people need their teachers to craft learning environments that reduce stress levels, interruptions, and confusion” (Martinez & Stager, 2013, p. 157). In the Reggio approach, the classroom needs to be set up in a way that fosters optimism and profound learning. When making decisions on how to implement inquiry with the diverse needs of the classroom, however, I found unless there was a common framework that fostered acceptance, self esteem and trust, that unexpected behaviours would come up within the work.

Students are able to use common language to express their feelings of how they are doing within their work, working with each other, and working on their own. The circle of courage is split up into four themes of mastery, independence, belonging and generosity. It is a way for all students to have a universal language and know what each word means and the intent behind the words. Implementing this model within my practice allowed me to support learning needs of diverse students, as it helped with self-esteem, feeling connected and behaviour. I used the circle of courage framework within my classroom so students could have common language to use within their work and talking amongst their peers. The circle of courage also acted as a tool to help students that were experiencing challenges within their work as well.

The main purpose for building self-esteem in students with learning difficulties is to help them accept responsibility for their academic performance and realize that their achievement is mainly a result of the effort they invest in a learning task. Praise must be genuine; insincere praise can do more harm than good (Sousa, 2007, p. 44).

As a student, I had teachers who I felt comfortable going to for extra support and teachers who I did not. There was never switching around from teacher to teacher as there is in

my school, but you had your one homeroom teacher and that was it. Lessons were taught in a linear fashion and collaborating and working with other students was not usually an option. We were sat in rows or the carpet and work was to be done independently. I remember that often I would not want to ask certain people for help, or ask questions in class, because I did not always want to share. I rarely remember teachers teaching different topics, as we all had the same textbooks to use and novels to read. Teachers did not work together, but had their own classrooms and each day was a set schedule split into academic topics. I have a vivid memory of where I wanted to share my understanding of the rainbow from my piano lessons to a story we were reading in class in our literacy block. When we were reading, she asked a student what that next colour of the rainbow was and I yelled out 'indigo'. I was sent immediately to the hallway and as a consequence not allowed to have any of the Jell-O the next day we were making, to show a rainbow. I wanted to connect my piano to the rainbow and show my prior knowledge, but in this book the colours of the rainbow were different than I knew. I felt that the teacher did not allow this to be an opportunity to make connections, but instead shut me down and hurt my self-esteem. After this, I never spoke out again in her class, nor did I feel brave enough to ask this teacher for help when I did not understand something. My self-esteem was broken and instead I felt shame in front of my classmates.

Looking back on my own learning in school, when I did not feel safe or accepted to express myself at times, it inhibited my thinking and contribution to class discussions. "Fostering self-esteem is a primary goal in socializing all children. Lacking a sense of self-worth, a young person from any cultural or family background is vulnerable to a host of social, psychological, and learning problems" (Brendtro, Brokenleg & Van Bockern,

2009, p. 58). When considering how self-esteem helps to answer the research question: ‘How do I make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom?’ It is evident that I needed to foster self-esteem in my classroom, as it was a large component when thinking of the decisions I make when implementing inquiry with the diverse needs of the classroom. Models that provide students with strategies to build awareness of their emotional, physical, and cognitive reactions are useful to build into classroom climate building.

Materials. I started to face roadblocks in the misuse of materials. I wondered how could I design a task that taught students to use materials in a purposeful way with the variety of needs within my classroom? In my journal I often wrote; *How was I able to teach students with diverse needs of how to use materials appropriately without telling them what and how to create?*

As a student myself, I do not remember having multiple supplies in the room for representing my work when it came to projects. I remember the walls to be full of posters for reading, math and handwriting. Coloured paints were kept out of reach. I only was allowed materials that teachers provided me and when using paints or other tools such as glue guns, I would have to have teacher help. One of my most memorable experiences about a project I did was in the first grade. I do not remember if this was a long lesson, but it was the first time I used a material that was very out of the ordinary. It was a fish. I was able to choose the colours of my fish and then make a print. While most of my classmates chose multiple colours or did not want to touch the fish, I was excited as fishing was something I did often growing up. I decided to paint the fish black and give it red eyes, as my mom had a black and white couch I wanted it to match with,

so she would put it up in our house. To this day, my fish artwork is still up in my mom's house. It was a real opportunity I felt as a student, where I was given a different experience and choice in expressing myself through the lens of an artist.

When it came to students using a variety of materials within my classroom, we not only focused on the materials themselves, but how to treat and care for materials such as paintbrushes. I would teach mini lessons to students and have expectations around the materials reminding students to be purposeful when applying materials to their work. This was a necessary skill for students to master, as before they were encountering roadblocks by misusing materials, ruining materials, or even stealing materials. Students would often surprise me in what they came up with in the end of a project. When I first saw some of students' final projects it was hard for me to interpret without them explaining to me more about it. Therefore, I would make sure students has a description to accompany their artifact that explained their process and why they chose certain materials over others. I was able to give feedback to students once projects were completed and suggest next steps through teacher student conferencing. Students soon realized that they needed to re-design their work and think differently in the material they might use next time that would make more sense. The feedback I provided was received positively from students and they were able to reflect later through writing or video to support their outdoor space artifact.

As I shared this story with some of my colleagues, they too talked of times where they felt inquiry and multiple materials were at times too much for students, particularly those students requiring more support. However, they also had stories of the learning that took place for them as teachers, when in fact at times they were unaware of what the students' intentions were, or were worried it would not turn out, but were surprised of

what students came up with. When choosing to implement inquiry projects using a variety of materials, it allowed me to feel confident in my decision making as a teacher. As the process unfolded it aligned with my pedagogy of providing an inclusive classroom to allow multiple forms of expression.

Noise. At times, I did not know if I could handle the noise in the classroom as I first introduced different learning areas for project work. There were glue gun stations, plasticine areas, art stations, technology stations, sewing areas and writing booths. I began to really look at my teaching design and reflected in my journal; *“Am I helping each student in teaching this sort of approach?” I started questioning is this “good work”, or is this “just play and noise?”* Often in my anecdotal journal notes, I would write, *“so what did students learn new today and I would respond, they are distracted, they are playing, there are too many materials for them to look at in the classroom.”* I would try and plan out different ways to set up my classroom, but was often limited to space and other varying factors, such as plug outlets in the room. Students who needed support were not always getting the support they needed, as I was busy making sure students were not needling through their fingers when using the sewing machine. I had to readjust the way I implemented these different tasks to create a classroom of organized chaos and calm.

I had some students not coping with the noise in the room and becoming distracted looking at what other students were creating. The noise at times was so loud and disruptive in certain inquiry tasks that I did not know if I could continue. I noticed some students could do this work with ease and others struggled with the idea of not being told what to do or what to create. I would often reflect at the end of the day saying: *“I have to change my teaching direction quick or I am going to lose some of them.”* I

rewound and decided to teach areas of interest in mini lessons so students could have an opportunity to learn about each area, which I hoped would help with the noise. I reminded them of classroom rules and norms as I started to teach mini lessons in each area, which allowed students to be split up into a more organized way that allowed for themes within the classroom. I had some students who were really comfortable already making iMovie's, or art, so I then started to have student experts within our own learning community when engaging in these tasks too.

Having organization in your classroom and teacher directed groupings once areas of interest were established amongst students, was a huge factor in helping in my decision-making. The organization and teacher directed groupings also helped to decrease the noise. When considering my research question: 'How do I make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom?', I saw the importance of having a classroom management strategy when responding to the variety of learning styles amongst the learners in the classroom was essential in understanding when making decisions for students in the classroom. Focusing in on resilience, self-esteem, materials and noise, allowed me to answer my question and teaching decisions when it came to implementing inquiry with the diversity amongst my students.

Conclusion

A self-study reflects on a teacher's own practice. Often, in the midst of the activity of teaching, it is difficult to recognize the learning and pedagogical change that is taking place, or to understand why certain practices are being implemented. In this study, I have explored my own decision making while implementing inquiry, linking my own experiences, journal reflections, and literature to the teaching and learning activities that

took place. In this study I have discovered that investigating, ‘How do I make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom?’, has been important to my practice. Through my findings, I have been able to answer my research question through different lenses.

Having an experience to test and try the work of inquiry was essential in answering my question in this self-study. Being provided with a ‘new opportunity’ at the very start of this work where I could implement inquiry practices to support inclusion was essential. Thus, it is important when provided with new opportunities that we are open as teachers to new experiences in a new environment that promote thought and creativity for our students.

As a teacher and student, ‘trusting the process’ has provided me insight into my decisions as a teacher. Students must not only believe in themselves, but teachers too. We must all have a mindset that permits us to flourish. Trusting the decisions we make in the classroom is essential to lessons we implement to adapt to all learners of the classroom and provide strength to our success as teachers in decision-making.

I have come to recognize through my self-study the value that collaboration. Colleagues helped brainstorm ideas and provide support to look at the decisions I make when implementing different projects and lessons within the inclusive classroom environment.

‘Student groupings,’ I have come to understand is essential in implementing inquiry with the diversity within the classroom. The value of mixed ability groupings, individual needs and support, hands-on, and student directed learning, allows for differentiated way of instruction around the same concept for students. It shifted

students' mindsets who were originally experiencing challenges with the concept, to being open in learning the same concept in different ways through different groupings.

'Generating inquiry projects,' and being intentional around how students were assessed was another factor in my decision making to allow for diversity amongst my students. I saw the value in designing assessment and projects to celebrate success, rather than expecting each student to complete the same type of assessment or task.

As a teacher, my decision making in how to implement inquiry, must also be 'modeled' to my students, to establish a cohesive culture within the classroom. Whether students chose to document their learning through document panels or artifacts, teachers modeling the process and giving students the expectations of their work are at the heart of this work. It allows students to feel successful, which reinforced the importance of modeling as an imperative factor to enable students to feel supported in an inclusive classroom. Through 'assessment' students gained the opportunity to guide their work at their own pace and strive for the outcome they wanted to achieve through rubrics and a variety of other forms of assessment. It was more than just a checklist for students, but an opportunity to allow for multiple ways to express themselves. Through my own learning experiences as a student and teacher, I came to realize the power continual feedback had on my students in their work as well as generating teacher/student expectations of the outcomes they had to achieve. This was essential when it came to my decision-making in instructing 'inquiry' with the diversity amongst my students.

The last theme I discovered through my self-study was the importance of 'classroom management.' I saw that when responding to the variety of learning styles amongst the learners in the classroom, it was essential to establish common classroom norms and expectations. Focusing in on resilience and self-esteem, allowed me to have

control of my class as well as provided students with a common framework through teacher guided lessons of Zones of Regulation and Circle of Courage, to help them regulate their emotions and guide their learning.

How all these themes are aligned in helping me answer my research question, is that they all had common parallels, interwoven with one another and helped me make decisions on implementing inquiry with the diverse needs of the classroom successfully. None of these themes stands alone; in fact they are all interconnected together. Without all of these ‘themes’, it would have been hard to answer my research question, through my self-study of: ‘How do I make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom?’

I will continue to look into my own practice and teaching, so I can develop more knowledge in helping me when considering what best pedagogy supports my students with the diversity amongst them. “Through negotiation and willingness to differentiate learning, teachers can provide students with an appropriate level of choice in what they learn, what process is followed, and what products are created” (Kozak & Elliot 2014, p.86). We must listen and collaborate with our students. Listening and reflecting into our practice is sometimes the missing piece that needs to go with teaching simultaneously. It is important, as a teacher to always question your design decisions and always be thinking of innovative ways that facilitate thought. Thinking of how our questions and decisions about instruction impact students’ ideas and voice and we must look further into our own practice to better support an inclusive classroom climate.

Chapter 5: Discussion

Central Themes and Implications

Doing a self-study as a research method was an effective way to look closer at my teaching practice when it came to: ‘How do I make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom?’, allowed me to openly reflect and grow as a teacher in my practice. Implementing inquiry into the design as a teacher when it comes to the diverse needs of the classroom unfastens the realm of possibilities, as we too are able to see ourselves as learners.

As discussed in Chapter one, while most people support the idea of inclusion, when it comes to education, teachers face numerous challenges when designing programs to address all learning styles and needs in the classroom. Teachers are asked to implement models in the classroom that support all learning requirements, but it is possible that teachers who are asked to implement inclusion have little or no experience. From my own experience deciding to take on this self-study I was able to learn about myself and how the choices I made contributed to how I made pedagogical decisions. It is my hope that other teachers when facing decisions of how to teach inquiry within their own classroom will utilize my findings to apply to their own teaching practice when making decisions about implementing inquiry in an inclusive classroom.

In order to implement these models it takes time, scaffolding and educating others as to why these models are the best approach to teaching our children. It is complicated to implement however, due to the diverse needs teachers are faced within the classroom. “John Dewey believed that the best teachers were good learners. Teachers become accountable to themselves when they are diligent students of their own teaching” (Krechevsky, Rivard & Burton, 2010, p. 66).

- New opportunities encourage other teachers and students to take on a different approach to teaching and learning who may have not experienced inquiry before.
- Taking risks and ‘trusting’ ourselves in our profession is something that I hope other teachers will take away from this study when it comes to decision making with the diversity in our classrooms. It is also important for our students to trust themselves and their peers and teachers in order to feel successful in an inclusive classroom.
- Collaborating with one another and assisting each other to create a wealth of knowledge is essential in the success of implementation of inquiry. We need to believe in ourselves as teachers just as we believe in our students. As teachers we need to know the ‘what’, ‘how’, ‘why’ of this work. Supporting one another through questions and challenges as well.
- Student Groupings and having different skill sets to share knowledge promotes different perspectives into this work.
- Generating Inquiry Projects is a place for teachers and students’ Rich learning tasks that promote curiosity while answering an essential question and encompassing curriculum objectives are essential elements of effective inquiry projects.
- Assessment through Teacher modeling and teacher/student generated rubrics enables students to have examples and see that teachers are also invested in the process as they learn and create. Modeling Inquiry allows students to learn from teachers and each other and see how our process unfolds. Assessment is designed in a way that allows each student to feel successful with the diversity amongst them and take ownership of their learning towards their targets and goals.

- Effective classroom management that involves everyone a space in the classroom supports positive self-esteem and resilience amongst students.

I see multiple ways of teaching in the classroom, as well as having deep discussions with colleagues and friends of what they view as successful ways to teach today's students to prepare them for tomorrow. In order for us to work cohesively in schools, there should not be "one model" or "one way", but multiple ways of expression for students to share their knowledge. It is the decisions we make as teachers this helps us to support our students gain insight into the world around them and how learning will continue with them throughout their life.

The first theme that helped me answer: 'How do I make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom?', was 'new opportunities'. New opportunities, allow teachers to take a chance and become creative within their practice. This fits with the way schools are going as "Learning is being transformed-driven by need, informed by what we know about learning and enabled by technology (Kozak & Elliot, 2014, p. 5). The push towards twentieth century model opens the doors for teachers and their students to try learning in a variety of ways through multiple forms of expression. In my self-study being provided with a school to take on the work of 'Inquiry' and apply it to my practice in a new environment allowed me the opportunity as a teacher to try new things.

"Convincing parents and teachers that today's children need to understand these new, fundamentally different concepts may be the hardest work of all" (Martinez & Stager, 2013, p. 56). Having access to technology, a variety of materials/work stations and access to parks near by allowed for students to research and create within the classroom as well as their environment. This was essential to my work in implementing inquiry and being provided with the platform through my new teaching environment, enabled me to take on this work, while being mindful of

the decisions I made within the diversity of the classroom and promoting inclusion. It is my recommendation that staff come together to look at what students needs are to best support an inclusive classroom and twenty first century learning with the framework of inquiry.

The second theme that came up when looking into my research question was ‘trusting the process’, which was essential in the work of inquiry and the decisions I made as a teacher.

“Learning to see the interconnections of all aspects of life ultimately becomes a habit of mind that will serve them well throughout their lives” (Chiarotto, 2011, p. 43). Through my own experiences as a student and a teacher, having faith in my own practice and students’ capabilities are all part of what ‘trust’ looks like. It is essential to believe in the work you are teaching and be open to failures when they arise. The failures are ways to get better and act as ‘next steps’ to take within your own classroom model and become a better teacher. It is my belief that both your successes and failures allow the inquiry to unfold and be ‘present’ as together you trust the decisions that are unfolding within the classroom. To continue the work of ‘inquiry’ we must trust in the advantage of this approach as it allows inclusive learning for all students to take place. “For those of us who want to change education, the hard work is in our own minds, bringing ourselves to enter intellectual domains we never thought existed” (Martinez & Stager, 2013, p. 56).

The third theme, in helping me answer my research question: ‘How do I make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom?’, was the power of ‘collaboration’. Collaboration amongst staff, students and parents is a large component in being successful in implementation of inquiry when making pedagogical decisions in your teaching practice. Through cohesive discussion between staff, having the opportunity to share and collaborate ideas was at the center of this work, when implementing inquiry. It is recommended from my self-study that teachers

not just ‘learn’ the work, but ‘do’ the work. Having opportunities to engage in this work and provide staff opportunities to work together would be recommended. Ways to support this in your school could be through similar grade groupings, professional development opportunities, or workshops, so teachers can learn about the process together and feel confident in applying inquiry to their students, while considering the diversity within the classrooms. “Collaborating with colleagues from other content areas can help teachers recognize natural connections in their content standards” (Krauss & Boss, 2013, p. 70).

The fourth theme that emerged from the data related to decisions about student organization, interconnections and ‘student groupings’. Having teacher selected groups and a variety of different skills sets versus like-minded students, is essential in generating ideas and discussion into the work of inquiry. I found when first implementing inquiry, that having mixed ability groups versus fixed, allowed for rich dialogue amongst students and all voices to be involved in group discussions. It created new relationships with students that may have not existed before as well as built confidence for students. It is recommended through my experience that teachers group students based on a range of skill sets to start this work, as it allows relationships to grow and students to have a sense of community. Once the learning and project begins to unfold, it is then that teachers can determine what the next set of groups might look like depending on what questions and ideas arise.

The fifth theme for me when considering: ‘How do I make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom?’, was ‘generating inquiry projects’ that promote curiosity and engagement in students. Although, “Inquiry-based learning is most consistent with the development of skills for lifelong learning. It prepares students to know what to do when the options before them are unclear” (Kozak & Elliot, 2014, p. 62). While implementing inquiry it is important to be

thoughtful in the decision making of design so it aligns with curriculum and report card objectives. This work needs to be intentional as a teacher, while being flexible to allow students interests and abilities to shine. To implement inquiry successfully it is suggested teachers attend workshops, school development opportunities and do their own reading and research on implanting inquiry projects. “By understanding more about how inquiry works, teachers can engage and sustain students’ curiosity across the arc of a project” (Krauss & Boss, 2013, p. ix)

My sixth theme in considering how I make pedagogical decisions in an inclusive classroom was ‘assessment’. “One of the responsibilities of being a teacher is to translate the mandates of the educational system to something that helps children understand their world (Martinez & Stager, 2013, p. 63). As I modeled my own project work and inquiry along my students it allowed students to see the process. Not only was it important for me to model inquiry tasks, but also was important for other students to learn from each other, in the decisions they made ‘next’ to grow within their inquiry work and assess their own work. Teachers must “do” the work, to “know” the work. While I considered decisions in how to assess student work, it was important to have a variety of forms to allow students to monitor their learning, whether it was through teacher/student generated rubrics, or a variety of formative assessments along the way, all were necessary in coming to the decisions I made. “Children have the right to explain their own creativity and their own way of seeing the world. They are capable of relating to others and to the world from the moment they are born”(Cagliari, 2014, p. 2). It is suggested from my self-study that teachers have opportunities to engage in creating assessment tasks, especially around grade groupings to be able to assess student work collectively.

The provincial standards are the base used to see how well students have learned English and French/Français language arts, Mathematics, Science, and Social Studies by the end of Grade 6 and Grade 9. These standards reflect the essentials that all Alberta students are

expected to achieve, regardless of school choice or location (Alberta Education, 2018).

Teachers are faced with the responsibility in designing assessment tasks that follow their provincial standards. Having assessment evidence that supports the work of 'inquiry' is essential in keeping it alive in the classrooms. Teachers must have common assessment tools and a baseline to adhere to regulations around achievement scores. Assessment design needs to be thought out while being linked back to curriculum objectives as currently assessment tasks are both objective and subjective. Evidence and knowledge needs to be shared, particularly when questions arise, around the validity of this work. If teachers, parents, administrators or students have never been provided the opportunity of working from an 'inquiry-based practice', it is important that evidence of assessment and the growth of this work is supported within schools. There need to be professional development days to allow teachers the opportunity to practice creating assessment tasks, as well as workshops that provide insight into assessing inquiry with the diversity amongst students.

The last theme that emerged in my self-study when considering: 'How do I make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom?', was providing a 'classroom climate' that created 'resilience' and 'positive self-esteem'. In order to do this it was important to have a framework that allowed the classroom to support this. As a teacher, I implemented Circle of Courage and Zones of Regulation as a classroom management strategy. Having common language to use when my students were experiencing difficulty with the task at hand or behaviours related to the success that students achieved in inquiry was vital. Making the decision to use Zones of Regulation and Circles of Courage within my classroom allowed all students to speak the same language. Schools should be choosing a common framework so that all students know what is expected of them and culture is created within the school around this

work. “We have the idea of a school as a communicative system. In the same way as a city, the school is a system of communications, and a place where culture is formed and elaborated”(Cagliari, 2003, p. 1). This will create an inclusive environment when engaging in inquiry, as it allows for positive behaviour and encouragement for students’.

Having multiple ways to learn and a vast wealth of knowledge in our profession is important to utilize to our best advantage to help support one another, and our students. We must be open to different teaching techniques and especially to help us teach best practice with the diverse needs of the classroom. Like everything in life, we have our good days and our bad days. We do not know what the day will bring, but considering the classroom is where students spend most of their days, it is important as teachers we think about many reasons for fostering a space that encourages students to learn and create that is individualized to the diverse needs of the classroom. When making decisions as a teacher, we can do our best to implement tasks as best as we can, but it is our responsibility to find out what makes them spark to help them reach their greatest potential.

Limitations:

A limitation to this study is that I do not know what students’ experiences were, or how an outsider would observe my teaching. I implemented my work through following the curriculum outcomes and report card stems while being flexible in how students represented their knowledge in my design. I interpreted my data through the lens of my experience and the literature in the field: ‘How do I make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom?’

A second limitation in this study is that it is only my experience and my data, so therefore biased. I collected data by doing weekly journals and asking myself questions.

Through focused reflection about how much research journals focus on my question, how I implemented inquiry practices with the diverse needs of the classroom. I understand that my journals only reflect my perceptions.

To understand my findings, readers must know that this study is biased, as it is only my account of how inquiry implementation was successful within my class. Although it is biased, it may still offer insights into potential decision making strategies in response to students' need. My process of making decisions and choosing strategies might be of value to other teachers, administrators and parents who have similar questions to me, when choosing different inquiry models to implement with the diverse needs of the classroom.

Conclusion:

From my own experience about: 'How do I make pedagogical decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom?', I have learned students should be allowed to show their learning through various avenues. Through reviewing literature on different learning models as well as approaching this work through the lens of diversity, my findings show students should be given the opportunity to learn in a 'strength based' environment. Providing students with new opportunities where they can collaborate in groups based on shared interest, not always ability, and focus beyond academics to include relationship building is essential. We must let students be creators of their own learning via inquisition and curiosity, and align programing outcomes and objectives to support all learners in an inclusive environment.

The best prompts emerge from a learner's curiosity, discovery, wonder, challenges or dilemma. When a student asks a question, that question deserves serious consideration.

However, far too often teachers rob students of powerful learning opportunities by setting

the prompt or being too prescriptive (Martinez & Stager, 2013, p.61).

As teachers, we make decisions based on what is of the best interest of our students. We need to make decisions that allow for curiosity and growth, and that help us make pedagogical decisions about best practices when considering the needs of all learners in an inclusive classroom.

Learning is lifelong, accumulative and experiential. Many times we learn from are failures and achieve success. As teachers it is my hope that we continue to be lifelong learners and look deeper into our practice to best support our students. We need to engage in conversations with children about what inquiry is. It is my hope that this study will encourage teachers and schools to collaborate, develop and rethink report-card objectives and outcomes to make sure that they align with diversity amongst students and twenty-first century learning in an inclusive classroom. This self-study will allow teachers to promote better teaching and better practice when faced with making decisions about implementation of inquiry-based practices when considering the needs of all learners in an inclusive classroom.

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