

The Co-development of a New Inclusive Pedagogical Planner

by

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### **Abstract**

Typically, across Canada, curriculum and special education are separate and distinct branches within provincial departments of education. The development of two branches within one provincial department has created a challenge for classroom teachers expected to integrate provincial curricular and special education mandates. Some teachers have reported they grapple with “curriculum overload” (National Council for Curriculum and Assessment, 2010) while others feel “ill-equipped” to sustain an inclusive pedagogical practice (Black-Hawkins, 2010; Florian, 2008).

The purpose of this qualitative collaborative action research study was to co-develop, with teachers, a new Inclusive Pedagogical Planner (IPP). A new IPP intended to support and guide teachers as they integrate provincial mandates regarding curriculum and special education. The central research questions for the study were (1) Can a new IPP, that is useful, practical, and supports and guides an inclusive planning process, be co-developed with classroom teachers, and (2) Can curriculum and inclusion be integrated into a new IPP that facilitates the development or advancement of an inclusive pedagogical practice?

Recruited for the study as active collaborators were four middle-years teachers. The active collaborators engaged in every aspect of the study as they contributed to the design, implementation, and critical analysis of the new IPP. The findings initially revealed that this group of teachers grappled with curriculum overload and some felt ill-equipped as they developed or tried to sustain an inclusive pedagogical practice. However, as a result of being a collaborative member of this study and participating in the co-development of the new IPP they identified a positive change in their inclusive pedagogical practice. They also indicated that they

benefited from having an opportunity to dialogue with their colleagues and reflect on their own theories and ideas about inclusion and their pedagogical practices regarding the curriculum.

Opportunities for further development of the IPP and future research include (a) using the new IPP as a teaching tool with undergraduate students, (b) implementation of the IPP with a larger number of participants spanning a broader range of grade-levels and years of teaching experience, and (c) the supporting binder could be enhanced with the addition of new resources.

### **Dedication**

I dedicate this thesis to my husband and partner, Allan. My Ph.D. journey has been a partnership from the beginning and one I could not have completed without your ongoing support. You have taken care of all the household details, taken part in endless discussions, walked back and forth to the library with me, read and re-read my work, and intently listened as I processed my thoughts. You have believed in me, prayed for me, and encouraged me to complete the journey. Thank-you, thank-you, thank-you!

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## Chapter One

### Introduction

Historically, curriculum and special education have been developed and established as separate branches within the Canadian school system resulting in a disconnect between policy and practice (Ayers, Quinn, Stovall, & Scheiern, 2008; Bartell, 2001; Connor & Ferri, 2007). Many Canadian universities maintain a Faculty of Education that support curriculum and special education as separate departments (see <https://www.utoronto.ca>, <http://umanitoba.ca>, <https://www.usask.ca>, <https://www.ubc.ca>). Similarly divided are graduate programs. Furthermore, an examination of provincial education websites typically reflect two distinct, disassociated departments of curriculum and special education that oversee kindergarten to grade 12 programming (see <http://www2.gov.bc.ca/gov>, <https://education.alberta.ca>, <https://www.saskatchewan.ca>, <http://www.edu.gov.on.ca/eng>).

Given these realities, "it could be argued that this historic separation of special [education] and mainstream curricula now presents particular challenges to the creation of more inclusive education systems" (Rose, 2007, p. 295). Two distinct branches of education led by separate groups of policy makers and specialists, perpetuates the challenge of developing an inclusive educational system. These policy makers and specialists represent a diverse group of professionals such as: (a) the Council of Ministers of Education, Canada (CMEC), (b) provincial Ministers of Education, (c) elected school board officials, (d) curriculum specialists (Aikin, 1942; Burns, 2000; Cremin, 1961; Dewey, 1938; Engelmann 2007; Pinar, 2014; Tyler 1949/1971), (e) psychologists, (Baker, 1999; Beeghly & Butler, 1974; Brennemann, 1934; Edmunds & Edmunds, 2008, Glover & Ronning, 1987), and (f) physicians (Sheerenberger, 1983). While some policy makers and specialists have prior experience in the classroom, in their present roles

they may be unaware of, or out of touch with, current daily classroom practices (Cuban, 2013; Rose, 2012).

Educational and curriculum reform introduced by politicians has often overlooked the voice of the classroom teacher (Fullan, 2016; Hargreaves, 1996; Ingersoll, 2003; Pinto, 2012). As a result, ongoing curriculum reform regarding learning outcomes, has left many teachers feeling increased pressure as they perceive the number of learning outcomes has grown. Yet, the allotted time to teach curriculum outcomes has remained the same creating a feeling of curriculum overload (National Council for Curriculum and Assessment (NCCA), 2010; Sousa & Tomlinson, 2011). Adding to this feeling is frustration over the lack of time to encourage deep, authentic learning and the development of higher order thinking skills, a competency considered essential to 21st-century learning (Lombardi, 2007; Lujan & DiCarlo, 2006; Salas-Pilco, 2013).

Rose (2012) asserted that "if a real impact upon curriculum access is to be achieved this is likely to be through developing a greater understanding of those planning, teaching, and assessing approaches which ensure pupil access and value a range of achievements" (p. 305). The people who understand planning, teaching and evaluation best are typically classroom teachers who undertake these activities daily. Consequently, teachers need to be involved in curriculum redesign, as ultimately, they will implement new ideas, strategies, and approaches (Huizinga, Handelsalts, Nieven, & Voogt, 2014).

Compounding the high demands of curricular instruction are diverse student needs. Teachers have reported feeling ill-equipped to develop and sustain inclusive pedagogical practices for students with disability and diversity characteristics (Black-Hawkins, 2010; Brackenreed, 2011; Ferguson, 2008; Florian, 2008; Forlin, 2012; Horne & Timmons, 2009; Lancaster & Bain, 2010; McLeskey & Waldron, 2002). Teachers tend to support inclusion

philosophically but feel especially challenged by differentiating and adapting the curriculum to make it accessible to all learners (Gordon, 2010; Rouse, 2008; Specht, 2016). As a result, some teachers consider academics (teaching the curriculum) and inclusion incompatible (Black-Hawkins, 2012). The perpetuation of separate educational branches of curriculum and special education may play a central role in this thinking. It may also have contributed to the notion that planning curriculum for students with special educational needs is in addition to typical classroom planning (Florian, 2014; McLeskey & Waldron, 2002).

### **Statement of the Problem**

While curriculum and inclusion remain separate disciplines, and overwhelming curricular expectations compete with stresses related to inclusion, teachers will continue to grapple with developing an inclusive pedagogy (Hargreaves & Shirley, 2011; Schumm, & Vaughn, 1995; Spillane, Reiser, & Reimer, 2002; Tomlinson, Callahan, Tomchin, Eiss, 1997; Tomlinson & Imbeua, 2010). Specht (2016) reported that “teachers are more willing to adopt inclusive pedagogical teaching practices ... when they are comfortable with the use of appropriate pedagogy” (p. 894).

Florian and Spratt (2015) defined an inclusive pedagogy as “a pedagogical approach that responds to learner diversity in ways that avoid the marginalisation of some learners.” An inclusive pedagogy is student-centred which means that teachers need to focus on student needs as the planning process begins, not at the end. An approach to planning that may need a shift in mindset as well as practice. However, some teachers are unsure of the practicalities involved in implementing such an approach (Black-Hawkins, 2012). Similarly, Specht (2016) found that teacher candidates thought of inclusion as a positive practice but also “expressed doubt in their ability” regarding the practicalities of implementation.

Herein lies the problem. Classroom teachers need to successfully integrate the policies and procedures developed by separate branches of curriculum and special education, as they develop their inclusive pedagogical practice. There are many frameworks offered in current literature that support teaching the curriculum. Frameworks such as (a) Guided Inquiry Design: a Framework for Inquiry in your School (Kuhthlau, Maniotes, & Caspari, 2012), (b) Backwards Design (Wiggins & McTighe, 2012), (c) the 5-E Instructional Framework (Bybee, Taylor, Gardner, Van Scotter, Powell, Westbrook, & Landes, 2006), (d) the Framework for Teaching (Danielson, 2007), (e) frameworks for 21st century skills (Dede, 2009), (f) the 3C3R Problem-Based Learning model (Hung, 2006), (g) Problem-Based Learning (Barrows, 1986), (h) EIMA guided inquiry model (Schwartz & Gwekwere, 2007), and (i) a Responsive/Reflective Lesson Planning Framework (Stephens, 2007). In comparison, there is a small body of literature regarding educational frameworks supporting an inclusive pedagogy (Black-Hawkins, 2012; Deluca, 2013; Florian & Spratt, 2013; Hitchcock, Meyer, Rose, & Jackson, 2002; Florian & Spratt, 2013). Differentiated Instruction (Tomlinson, 1995) and Universal Design for Learning (Meyer, Rose, & Gordon, 2014) are two well-known, general frameworks that support inclusion. The review of literature did reveal a particular model of Universal Design for Learning developed by Dr. J. Katz (2012) called the Three Block Model of Universal Design for Learning. Katz (2015) considers her UDL model a framework for “achieving inclusive education” (p. 4). A further review of relevant literature however, did not reveal a specific planning tool, co-developed with classroom teachers, that integrated curriculum and inclusion into one cogent planning process (McLeskey & Wodron, 2002).

### **Purpose of this Study**

Therefore, the primary purpose of this study was to co-develop, implement, and assess a new, practical, planning tool - a new Inclusive Pedagogical Planner (see Chapter Two for a description of a Pedagogical Planner) with classroom teachers. UDL principles, according to Katz (2015) “provide a broad foundation for inclusive education” (p. 4). The purpose of the new IPP was to offer focused support with inclusive education, through a practical, day-to-day planning tool, co-developed by classroom teachers.

The added element of co-developing the new IPP with classroom teachers makes it a unique addition to the literature on inclusion. The new Inclusive Pedagogical Planner (IPP) was designed to integrate curriculum and inclusion by infusing an inclusive pedagogical practice throughout the planning process (Clough, 2008; Florian 2007; Slee, 2007; Winzer 1998). The secondary purpose of the study was to explore the use of guided discovery learning as the instructional strategy during the implementation of the new IPP.

### **Research Design**

As already corroborated, teachers have often been disenfranchised from decisions that impact their daily practice (Goodman, 1988; Tomkins, 1986). Thus, it was vital to select a research design that included the voice and expertise of classroom teachers. A planning tool designed for teachers should have input from classroom teachers to ensure it was practical and useful for future use. Collaborative action research (CAR) is a qualitative research method that “seeks to create participative communities of inquiry in which qualities of engagement, curiosity and question posing are brought to bear on significant practical [issues]” (Reason & Bradbury, 2008, p. 3). Current literature endorses the use of CAR as a method to address significant educational issues and to promote professional growth with teachers (Ross, Rolheiser, &

Hogaboam-Gray, 1999). The desire to include teachers in this study led to the use of CAR methods for this study, described in more detail in Chapter Three.

### **Inquiry Questions**

Collaborative action research is a method that encourages the researcher to pose questions. Therefore, I posed some key inquiry questions prior to the commencement of the study:

- 1) Are there common characteristics of inquiry-based learning, project-based learning, experiential learning, place-based learning, cooperative learning, 21st-century competencies, and authentic learning? If so what are they?
- 2) Can these characteristics be integrated into an inclusive, interdisciplinary framework (the new IPP) that supports teaching curricular content in middle-years classrooms?
- 3) Is one particular type of inquiry learning promoted in the Manitoba Education and Training (MET) documents?
- 4) How can an inclusive pedagogical practice be identified and evaluated?
- 5) Does planning with the IPP change teachers' thinking and practice regarding inclusion?
- 6) What form should the IPP take?

The inquiry questions helped formulate the initial plans for this research study. Additionally, qualitative researchers typically develop analytical questions that give focus to the gathering and organizing of data (Bogdan & Biklen, 2007). The central research questions in this study concentrated on the co-development of a new IPP. The secondary questions focused on the analysis, interpretation, and implementation of the new IPP.

## **Research Questions**

The central questions for this thesis are:

- 1) Can a new IPP, that is useful, practical, and supports and guides an inclusive planning process, be co-developed with classroom teachers?
- 2) Can curriculum and inclusion be integrated into a new IPP that facilitates the development or advancement of an inclusive pedagogical practice?

The study also sought to discover a response to the following set of secondary questions:

- 1) Did the new IPP influence the planning and instruction of middle-years teachers? If so, how? If not, why not?
- 2) Did following the IPP guiding principles assist, or challenge the teachers in approaching their classroom inclusively? If so, how? If not, why?
- 3) Did teachers feel they were able to remove barriers to students learning, following the guiding principles embedded in the IPP?

## **Significance of the Study**

Currently, the literature does not offer a similar planning tool that is co-developed with classroom teachers. The new IPP was developed to support and guide teachers as they integrate multiple policies concerning curriculum and special education. This research study confronts a gap in the literature by offering a unique approach to the problem, the co-development of a new Inclusive Pedagogical Planner. A new IPP co-developed with classroom teachers has the potential to offer practical support and guidance to teachers as they develop or continue to develop their inclusive pedagogical practice and adhere to provincial policies and mandates. Specht (2106) suggested that including inclusive instructional approaches in teacher candidates' coursework "may improve their skills and confidence" as they develop an inclusive pedagogy.

Therefore, the new IPP has the potential to provide practical support and guidance to teacher candidates as well.

### **Organization of the Thesis**

The thesis comprises six Chapters. The aim of Chapter One was to (a) introduce the problem, (b) state the purpose of the study, (c) specify the research design chosen, (d) delineate the research questions, and (e) elucidate the significance of the study. Chapter Two encompasses a review of relevant literature related to the purpose of this study. Chapter Three describes the research method and outlines the research procedures used in the study. Chapter Four presents the co-development process, implementation, and analysis of the new IPP. Chapter Five outlines and discusses the emergent themes and findings from the data analysis. The final chapter is a summary of the findings, a presentation of the conclusions drawn from the study, and offers recommendations for further research.

## **Chapter Two**

### **Literature Review**

This review begins with current, relevant literature about pedagogical planners and their purpose, and an inclusive pedagogy. The chapter continues with an examination of the current state of curriculum and special education in Manitoba through a review of pertinent Manitoba Education and Training (MET) documents and policies. The MET documents are included for two reasons. First, the study took place in Manitoba. Therefore, understanding current provincial policies of the branches of curriculum and student services was necessary to support the integration of curriculum and an inclusive pedagogy within the new IPP. The second reason for examining the MET documents was to gain further knowledge about the underlying philosophy of teaching and learning promoted by MET, with a focus on specific pedagogical practices encouraged within the documents. The chapter concludes with a subsequent review of current literature regarding the pedagogical practices discovered in the MET documents, in order to establish a research base for the various practices.

### **Pedagogical Planners**

Pedagogical planners are described as alternative tools that make efficient use of technology for developing lesson plans (Cameron, 2010; Masterman, 2008). The primary purpose of a pedagogical planner is to "provide teachers with a tool to support them in the process of ideating, structuring, and planning educational activities ... to make explicit not only the educational activities to be carried out but also the pedagogical rationale underlying their design choices" (Bottina, Ott, & Tavella, 2011). Designed to recognize and support existing pedagogies, pedagogical planners also encourage the use of different pedagogies (Conole, 2013; Masterman, 2006). Pedagogical planners have the capacity to include (a) general information

about a unit plan, (b) information regarding students, (c) the context of the plan, (d) the objective of the plan, (e) the evaluation metrics, (f) identification of the tools or resources necessary to complete the unit plan, and (g) a description of the learning activities to be implemented during the unit (Cameron, 2010; Conole, Falconer, Jeffrey, & Littlejohn, 2005).

**Eight basic functions.** Within the current literature several different pedagogical planners were found including (a) DialogPlus Toolkit, (b) Phoebe, (c) London Pedagogical Planner (LPP), (d) Learning Design Support Environment (LDSE), and (e) Learning Design Template Project (Conole, 2013). Across these models, eight basic functions of a pedagogical planner were identified (Cameron, 2010; Conole, Brasher, Cross, Weller, Clark, & Culver, 2008; Goodyear, 2005; Lockyer, Heathcote, & Dawson, 2013; San Diego, Laurillard, Boyle, Bradley, Ljubojevic, Neumann, & Pearce, 2008). A pedagogical planner should:

- provide step-by-step guidance to teachers making theoretically informed decisions about the development of learning activities,
- provide guidance about the most appropriate tools and resources to undertake the learning activities developed,
- inspire teachers to adopt new learning strategies,
- provide clear descriptions and examples of learning activities,
- provide a database of good practices for use across subject areas,
- offer a rationale that bridges pedagogic philosophy, research-based evidence, and teachers' experiential knowledge,
- produce learning designs for direct use by students, and
- develop and support an iterative, fluid planning process.

While all pedagogical planners supported the planning process, they did not necessarily include all eight basic functions listed. For example, the Learning Design Template focused specifically on problem-based learning and critical thinking but did not inspire the use of other learning strategies (Cameron, 2010).

**Online design.** Post-secondary teachers were the first group who used pedagogical planners, as tools for online learning design (Cameron, 2010; Conole, 2013; Pozzi, Ceregini, Dagnino, Ott, & Tavella, 2016). Within an online design, the pedagogical planners embraced graphics, such as concept maps, to illustrate the planning process and the key components in the process. During the co-development of the new IPP, various graphics and concept maps were used for the same purpose, to illustrate the planning process (see Chapter Three).

The online learning design process consisted of three main phases: conceptualization, authoring, and implementation. A pedagogical planner has the unique ability to support all three: ... from the first steps of conceptualizing the design idea (defining the learning objectives, identifying the contents to be addressed and choosing the most adequate pedagogical strategies), down to planning the flow of activities, associating the education resources and tools to be used by students, and finally delivering the resulting design (being it a single activity or a whole course) to students through a Learning Management System (LMS) (Pozzi et al., 2016, p. 20).

With the use of an online LMS, teachers could use a pedagogical planner to build unit and lesson plans. At the conceptualization stage teachers needed to input information regarding (a) the student population they are planning for, (b) the context and environment where the unit will be carried out, (c) the main aim of the unit, (d) the outcomes and methods of evaluation, and (e) the tools students required to complete the unit. Next, during the authoring phase, a teacher

needed to enter the objectives of the unit, then select and identify specific tools, resources, strategies, and criteria for evaluation of the unit. Following the input of all required information, the unit was ready for implementation and published online ready for students to access (Pozzi et al., 2016).

The authoring phase was an important part of the design cycle as it encapsulated the design of the entire unit plan from the pedagogical practices chosen to the tools and resources needed for the unit. An online pedagogical planner offered flexibility in the planning process as teachers could easily “jump from one section to another” completing fill-in sections with relevant information.

**Paper-based design.** The plan from the beginning of the study was to co-develop and design a paper-based pedagogical planner. I wondered how we would explore the authoring phase using a paper-based model. As a starting point for the authoring phase I decided to develop a matrix to illustrate possible components for a new IPP. The matrix (see Table 2) was developed prior to recruiting the active collaborators and intended as provocation during the initial conversations about pedagogical planners.

The matrix I developed was an adapted version of a matrix originally developed by Binkley, Orstad, Herman, Raizen, Ripley, Miller-Ricci, and Rumble (2012) (see Table 1). Binkley et al. (2012) recommended educators use their model and make any adaptations so it “fit their own context” (p. 18). The original matrix was based on a literature review conducted by Binkley et al., regarding twelve models of 21<sup>st</sup>-century skills. Garnered from the literature review were ten top skills 21<sup>st</sup>-century students should develop. Binkley et al. presented the top ten skills in a matrix under the headings of four big ideas (1) ways of thinking, (2) ways of working, (3) tools for working, and (4) living in the world.

Table 1

*Four Big Ideas*


---

Big Ideas	Associated Skills
Ways of thinking	<ul style="list-style-type: none"> <li>• creativity and innovation</li> <li>• critical thinking, problem-solving, and decision making</li> <li>• learning to learn and metacognition</li> </ul>
Ways of working	<ul style="list-style-type: none"> <li>• communication</li> <li>• collaboration (teamwork)</li> </ul>
Tools for working	<ul style="list-style-type: none"> <li>• information literacy (includes research on sources, evidence, biases, etc.)</li> <li>• ICT literacy</li> </ul>
Living in the world	<ul style="list-style-type: none"> <li>• citizenship – local and global</li> <li>• life and career</li> <li>• personal and social responsibility – including cultural awareness and competence</li> </ul>

---

I recognized an obvious connection between the ideas presented in the *Four Big Ideas* matrix and the components of the online authoring phase suggested by Pozzi, Ceregini, Dagnino, Ott, and Tavella (2016). Once I had analyzed the MET documents, I discovered strategies and ideas that could extend the original matrix and make it more relevant to the classroom setting. Therefore, I expanded the original matrix and developed the revised matrix presented as Table 2.

As already denoted the revised matrix was developed in the spirit of collaborative action research not as an exemplar of an IPP. My hope was that the active collaborators would feel free to make any changes they saw fit to the original ideas. The matrix would help us think about all aspects of a planning process. I also hoped the active collaborators would be open and willing to challenge their thinking about their inclusive pedagogical practice.

**Teacher willingness.** Conole (2013) found that the key to the effective use of a pedagogical planner existed in a teacher's willingness, and desire to make pedagogical changes. He showed that teachers often approached pedagogical planners with their existing practice in mind, which resulted in little change to pedagogical practice. Bottino, Ferlino, Ott, and Tavella (2007) discovered the same phenomenon. Additionally, Bottino, Ferlino, Ott, and Tavella (2007) found little pedagogical gain or change occurred when teachers used new educational tools, like a pedagogical planner, without proper support. The recommendation was for teachers to receive support and guidance as they considered their pedagogical rationale, developed new pedagogical plans, and focused on specific pedagogical aims, choices, and approaches (Bottino, Ferlino, Ott, & Tavella, 2007; Conole, 2013). Supporting the active collaborators throughout the study became a key component of my role as the research facilitator.

Table 2

*Four Big Ideas Revised*

Big Ideas	Associated Skills
Ways of thinking	<ul style="list-style-type: none"> <li>• remember, understand, apply</li> <li>• analyze, evaluate, create</li> <li>• think critically</li> <li>• problem-solve</li> <li>• reflect</li> <li>• construct knowledge connected to prior knowledge</li> <li>• innovate</li> <li>• imagine</li> <li>• show curiosity</li> <li>• formulate and ask big questions</li> </ul>
Ways of working	<ul style="list-style-type: none"> <li>• cooperate and collaborate (teamwork)</li> <li>• connect to authentic experiences</li> <li>• engage in active living</li> <li>• communicate</li> <li>• guided inquiry</li> <li>• learner centred</li> <li>• the teacher acts as guide and facilitator</li> </ul>
Tools for students working	<ul style="list-style-type: none"> <li>• technology</li> <li>• books, school, and local library</li> <li>• community experts</li> <li>• media</li> <li>• writing utensils</li> <li>• art supplies</li> </ul>

## Community living

- citizenship – local and global
  - focus on strengths
  - high expectations of all learners
  - everyone belongs
  - accept and celebrate difference as part of a community
  - all students work in the classroom with peers
  - no student is denied access to learning
  - no student is denied support they need
  - support happens in the classroom
  - students have a voice
  - students are given a choice
  - a democratic classroom
  - student-centered
-

A pedagogical planner uses a student-centered approach, considering the needs of the students first. A pedagogical planner has the potential to be an inclusive planning tool as an inclusive pedagogy is student centered (Pozzi et al., 2016). Embedding an inclusive pedagogical rationale within the new IPP was an essential element of this study. Therefore, prior to co-designing the new IPP, a shared fundamental understanding of an inclusive pedagogical practice was critical to the design process. A key inquiry question developed asked how an inclusive pedagogical practice could be best defined and understood. Therefore, before the study began I developed a preliminary set of guiding principles of inclusion to incite discussion about an inclusive pedagogy.

### **Inclusive Pedagogy**

The focus of an inclusive pedagogy should be on “creating environments for learning with opportunities ... made available for *everyone* ... sufficiently extending what is ordinarily available for *all* learners ... rather than using teaching and learning strategies that are suitable for *most* alongside something ‘additional’ or ‘different’ for *some* who experience difficulties” (Florian, 2014, p. 290). The guiding principles developed for the study integrated Giangreco, Carter, Coyle and Suter's (2010) elements of inclusive education; Florian and Spratt's (2013) definition of an inclusive pedagogical practice; Meyer, Rose, and Gordon's (2014) principles of Universal Design for Learning; and Brown's (1997) principles of learning. Following are the guiding principles of inclusion that were developed for this study and included in the new IPP.

### **Guiding Principles of Inclusion**

- All students are included in general education classes at their local community school.
- All students, irrespective of their developmental or performance levels, are educated with their same age peers.

- Differences are recognized and legitimized as a form of human diversity.
- All students are accepted as individuals who can contribute to a learning community.
- No student is denied access to learning.
- Appropriate supports are available to all students as the teacher provides a range of options available to everyone.
- Supports are provided in the typical classroom environment.
- All students participate in shared educational experiences while pursuing individually appropriate learning outcomes with necessary supports.
- Collaboration and reflection are the major learning activities in the classroom.
- Educational experiences are designed to enhance a balance between the academic and social aspects of schooling.
- The culture of the classroom promotes learning, negotiating, sharing and production of work.
- There is an emphasis on the active, strategic nature of learning.
- Classroom teachers focus on what their students can do and accept primary responsibility for the learning of all their students.
- Classroom teachers plan universally designed lessons that support multiple ways of acquiring knowledge, demonstrating knowledge, and engaging students in the classroom.

A clear description of a pedagogical planner and an inclusive pedagogy has been presented. The next section of the review will examine the current state of curriculum and special education in Manitoba.

## **Education in Manitoba**

In Chapter One, I described the separation of curriculum and special education across Canada and the challenge this has created for classroom teachers. Manitoba Education and Training upholds a similar system. It is not surprising then, that various Manitoba teachers reported similar challenges as the ones described in Chapter One. Manitoba teachers suggested “the task of differentiating instruction, adapting, and modifying, while trying to meet curriculum outcomes for all students ... [generated] increased stress, anxiety and increased preparation time” (Manitoba Teachers Society, 2008, pp. 17-18). Furthermore, some Manitoba teachers indicated they felt ill equipped to cope with the diverse academic and social-emotional needs of their students. Consequently, a new IPP has the potential to support Manitoba teachers as they integrate the requirements of both the ICAB (Instruction, Curriculum, and Assessment Branch) and Student Services divisions of MET.

The active collaborators and I co-designed the new IPP for implementation in Manitoba classrooms. To promote the new IPP as a tool that supported the daily practice of Manitoba teachers, it was imperative to align the IPP with current curricular and inclusion mandates promoted by MET. Accordingly, this section of the literature review begins with a presentation MET’s definition of curriculum and inclusion, followed by a brief overview of the curricular requirements and expectations for inclusion.

**Definitions of curriculum and inclusion.** MET describes core Manitoba curriculum documents as curriculum frameworks. The Manitoba Education and Training ICAB branch defines a curriculum framework as:

A subject-specific document which identifies student learning outcomes for what students are expected to know and be able to do as they relate to the knowledge and skills of a

particular subject area. Standards of achievement for mathematics and language arts are also included in curriculum frameworks for Grades 3, 6, Grade 9 (Senior 1) and Grade 12 (Senior 4). Curriculum frameworks provide the basis for teaching, learning, and assessing in a particular subject area or course. They also provide a foundation for further development and implementation in areas such as student assessment, staff development, learning resources. Each subject-specific curriculum framework includes the overview, student learning outcomes for each grade from Kindergarten to Grade 12 (Senior 4) (Province of Manitoba, 2017a).

Some consider curriculum frameworks as practice frameworks (Woolfson, Boyle, Kelly, Lauchlan, & McKay, 2008). A practice framework provides “a series of steps or actions that support the application of a theoretical model or models” (Woolfson, Boyle, Kelly, Lauchlan, & McKay, 2008, p. 14). MET core curriculum frameworks include a series of learning outcomes. The outcomes span the grades and support one theoretical model (portrayed later in the chapter) thus align with the definition of a practice framework.

MET Student Services Branch provides a general definition of inclusion:

Inclusion is a way of thinking and acting that allows every individual to feel accepted, valued and safe. An inclusive community consciously evolves to meet the changing needs of its members. Through recognition and support, an inclusive community provides meaningful involvement and equal access to the benefits of citizenship. In Manitoba, we embrace inclusion as a means of enhancing the well-being of every member of the community. By working together, we strengthen our capacity to provide the foundation for a richer future for all of us (Province of Manitoba, 2017b).

**Curriculum expectations and challenges.** Manitoba has four core subjects: English language arts (ELA), math, science, and social studies. Manitoba Education and Training (MET) mandates the curriculum for these core subjects. The four core curriculum documents encompass dozens of general learning outcomes and hundreds of specific learning outcomes. For example, in one school year, a middle-years teacher is required to teach over 250 specific learning outcomes outlined in the four core subject areas. Added to the core subject areas are many learning outcomes from added topics such as French, art, and health.

Teachers also need to incorporate four foundation skills into their daily teaching. MET describes foundation skills as “skill areas ... essential ... to prepar[ing] students for their various roles in society. These foundation skill areas will prepare students for citizenship, employment, including self-employment, and lifelong learning.” MET defines the four foundation skills.

1. Literacy and Communication: using language, in all its forms, in learning across subject areas through reading, writing, listening, speaking, viewing, and other ways of knowing (i.e., using role playing, sketching, diagramming, and dramatizing as vehicles and tools for learning across the provincial curriculum).
2. Problem-solving applications including critical thinking, creative thinking, reasoning and logic, learning to learn, understanding, appreciating, and using abstract patterns, relationships, concepts, and connections with numbers, words, ideas, and issues.
3. Human Relations: developing an understanding of self and an appreciation of self; developing work habits including responsibility, adaptability, entrepreneurship, management of change, and accountability; developing an understanding of, and appreciation for, our society' s diverse population; developing tolerance, teamwork, leadership, and a sense of global interconnectedness.

4. Technology: using technology to learn by making connections between technology, society, and the environment (Province of Manitoba, 2017c).

The foundation skills add another layer of complexity to many curricular outcomes adding to the feeling of curriculum overload. MET requires teachers to infuse the foundation skills into every subject area as shown on the official government website: “Therefore, **every teacher** will be a teacher of literacy and communication, of problem-solving, human relations, and technology” (Province of Manitoba, 2017c). Furthermore, MET requires teachers to integrate themes related to aboriginal perspectives, gender fairness, proper age portrayal (positive images of all people regardless of their age), cultural diversity, and sustainable development in their pedagogic plans.

Integrating an exhaustive list of core subject learning outcomes alongside foundations skills, and themes, into one cohesive academic plan, contributes to the challenge faced by Manitoba teachers (Froese-Germain, 2014, Karesnti, & Collin, 2013). According to MET, core courses in a middle-years classroom should consume 70% (3.85 hours) of a typical school day, while 17% of the day is allocated for physical education and art leaving 13% for optional subjects. Less than four hours per day does not seem an adequate allocation of time to teach over 250 specific learning outcomes, foundation skills, and the noted themes. Given this is the context for Manitoba teachers; it is understandable why they feel overwhelmed managing curricular expectations (Froese-Germain, 2014; Karesnti & Collin, 2013).

**Inclusion expectations and challenges.** In addition to meeting curricular expectations, MET expects teachers to embrace and use an inclusive pedagogy. The branch of Student Services recommends Differentiated Instruction (DI) and Universal Design (UD) as specific strategies to support inclusion. MET gives a definition of each term.

Differentiated Instruction (DI). DI is defined as a method of instruction or assessment that alters the presentation of the curriculum for the purpose of responding to the learning diversity, interests and strengths of pupils.

Universal Design (UD). The concept of UD means that school communities, including teachers, develop plans for the full diversity of their student population. Universally designed schools, classrooms, curricula, and materials provide all students with access to the resources they require, regardless of their diverse abilities and needs (Province of Manitoba, 2017d).

Definitions alone offer limited help to teachers who agree philosophically with inclusion but struggle with the practicalities of an inclusive pedagogical practice (Loreman, 2013; Rouse, 2008; Bunch, Lupart, & Brown, 1997; Avramidis & Norwich, 2002). Bottino et al. (2007) and others suggested that teachers need practical support in developing or changing their inclusive pedagogical practice (Brackenreed, 2011; Ferguson, 2008). Support can be provided through (a) a set of guiding principles for inclusion (Florian & Spratt, 2013), (b) more time for planning and differentiating curriculum, (c) ongoing training (Horne, & Timmons, 2009), (d) encouragement to use a range of teaching strategies, and (e) support in implementing inclusive practices (Rouse, 2008). Many of these supports and ongoing guidance are basic functions of a pedagogical planner further illustrating the rationale for co-developing a new IPP.

**Curriculum frameworks and support documents.** Next, an in-depth investigation begins of eight relevant MET documents. The documents selected were MET's four core subject curriculum frameworks as well as four support documents. The curriculum frameworks for ELA (English Language Arts), science, social studies, and math were included in this study because

they represent the core subject areas mandated in Kindergarten to Grade 8 classrooms across Manitoba. The grade 7/8 teachers recruited for this study taught all four core subject areas to their students. Therefore, a review and analysis of the grade 7/8 learning outcomes seemed prudent.

MET also offers support documents that are “subject-specific or generic document[s] designed to provide further support to teachers” (Province of Manitoba, 2017e). Unlike curriculum documents, MET does not mandate the use of support documents. They are available when and if, teachers choose to use them.

*Description and review of curriculum frameworks.* The curriculum frameworks reviewed were:

- *Grade 5 to 8 English Language Arts: A Foundation for Implementation* (1998).
- *Grades 5 to 8 Science: Manitoba Curriculum Framework of Outcomes* (2000),
- *Kindergarten to Grade 8 Social Studies Manitoba Curriculum Framework of Outcomes* (2003), and
- *Kindergarten to Grade 8 Mathematics Manitoba Curriculum Framework of Outcomes* (2013).

An appraisal of the core curriculum frameworks revealed similarities as well as differences. For example, each document outlines a systematic progression of the learning outcomes over multiple grade levels, either for Kindergarten to grade 8 or for grade 5 to grade 8. The math, ELA, and science frameworks offer established general learning outcomes (GLOs) subdivided into Specific Learning Outcomes (SLOs), while the social studies document has a complex framework of clusters, GLOs and SLOs. Within the four core curriculum frameworks various instructional strategies and concepts were featured (a) integrated instruction and

cooperative learning (ELA, 1998; math, 2013; science, 2000; social studies, 2013), (b) inquiry-based learning (ELA, 1998; science, 2000; social studies, 2013), (c) problem-based learning (ELA, 1998; social studies, 2013), (d) experiential learning (math, 2013; science, 2000; social studies, 2013), (e) 21<sup>st</sup> century skills (ELA, 1998; math, 2013; science, 2000; social studies 2013), (f) higher order thinking skills (ELA, 1998; science, 2000; social studies, 2013), (g) authentic learning (ELA, 1998; math, 2013; science 2000; social studies, 2013), and (h) a democratic classroom (ELA, 1998; math, 2000; social studies. 2013).

The English language arts document is the only one that references *Success for All Learners: A Handbook for Differentiation* (1996), the MET support document focused on inclusive classroom strategies (see next section). The ELA (1998) and social studies (2013) frameworks suggest Differentiated Instruction (DI) as a method of supporting curricular outcomes. However, there are no specific DI or inclusion strategies in any of the core frameworks. Overall, the four curriculum frameworks analyzed are congruent with the definition of curriculum frameworks given by MET.

***Description and review of support documents.*** The four support documents included for analysis were:

- *Independent Together: Supporting the Multilevel Community* (2003),
- *Engaging Middle-years Students in Learning* (2010),
- *Curricular Connections: Elements of Integration in the Classroom* (1997), and
- *Success for all Learners: A Handbook on Differentiating Instruction* (1996).

Each document has a unique purpose. A rationale for including each document follows a short review and analysis of each one.

The first document selected was *Independent Together: Supporting the Multilevel Community* (2003), because the current study took place in a multilevel school. I was interested in contrasting and comparing the teachers approach to multilevel classrooms with the ideas presented in the MET document (see Chapter Four). All classes in the school setting for this study were multilevel with at least two grade levels per classroom.

*Independent Together* is written to support an understanding of how multilevel classes “engage students, educators, and parents in developing independent learners within a student-centered multilevel classroom community and to celebrate the uniqueness of each learner” (p. vii). Differentiated Instruction is an essential practice in a multi-age classroom, as teachers should expect diversity within a multilevel class where students have a broad range of skills, experiences, interests, cultural backgrounds, and personalities. The explicit highlighting of DI shows it is a foundational concept in a multilevel classroom.

The document provides many practical, usable resources (e.g., Blackline Masters, glossary, bibliography, appendices) and strategies for teachers working in multilevel classrooms. Instructional strategies promoted include guided inquiry, authentic learning, cooperative learning, and developing a classroom community of learners (see Glossary). There is an emphasis on integrating curriculum, and on using a continuum of learning. The document highlights a social constructivist theory of learning, outcome-based curriculum, and brain-based research. The document outlines some primary challenges to multilevel teaching: teacher experience, consistent support, and time for students to become independent learners.

The second support document chosen was *Engaging Middle-years Students in Learning* (2010) because I recruited middle-years teachers for this study. The authors wrote the document to “provide a deeper understanding of and direction for the transformation of Middle-years

education ... to maximize student engagement” (p. 1). The document presents an overview of the current situation in middle-years classrooms, then outlines and describes five areas in need of improvement.

Highlighted in this document is the need for middle-years teachers to have a deep understanding of young adolescents to “provide learning experiences that are more responsive to adolescent development” (p. 3). Presented is a description of responsive teaching as it relates to the adolescent context described as a collaborative, student-centred approach to the classroom. Suggested as a strategy to enhance responsive teaching is DI. Responsive teaching is denoted to as hands-on, experiential discovery approach to learning. A community of learners’ model is a method of increasing opportunities for student voice and choice in the pursuit of a democratic classroom. The democratic classroom is presented as a strategy to “improve academic achievement, self-esteem, attendance, behaviour, and communication skills” (p. 25), consistent with a community of learners’ model. Further, cooperative learning approaches facilitate the development of classroom community. The final suggestion for improvement in middle-years classrooms is for more parental, community member and stakeholder involvement in the school (Manitoba Education, 2010).

The third document selected was *Curricular Connections: Elements of Integration in the Classroom* (1997) because of its focus on integrating the curriculum. Integration of curricular outcomes can be a valuable approach to managing multiple curricular outcomes while making “curriculum socially relevant and meaningful” (Province of Manitoba, 2017e). Integration of curriculum is also a strategy that supports authentic, deep, learning (Sousa, & Tomlinson, 2014) making this a valuable resource for teachers trying to engage middle-years learners.

The document includes a description of three different types of curricular connections: within (inter-disciplinary), between (multidisciplinary), and beyond (trans-disciplinary) subject areas (<http://www.edu.gov.mb.ca>). Furthermore, a generic model of the Teaching-Learning Outlined in the document is a process focused on a problem-solving approach that “sets the stage for active student participation and provides the parameters for the learning experience. Guided by learning outcomes, the student researches, organizes, evaluates information, and determines the action to be taken. The problem-solving process can be used as a way of teaching and as a way of learning” (Manitoba Education, 2010).

The final support document selected was a *Success for all Learners: A Handbook on Differentiating Instruction* (1996). This document is the only practical resource focused on inclusion, published by MET, specifically for Kindergarten to Grade 12 classroom teachers. Therefore, it seemed judicious to include it as the new IPP is a practical resource for teachers. The authors wrote the document, “in response to the diversity of students in [the] classrooms” with the intent of “providing practical help to educators seeking to develop more effective ways for all students to achieve learning outcomes” (p. xi).

The document holds multiple chapters that each suggests a variety of ways a teacher can differentiate instruction in the classroom. For example, included are a description of Howard Gardner’s Multiple Intelligences (1983) and a multiple intelligence planning template, along with many cooperative learning strategies and graphic organizers. There are various generic examples of DI across subject areas and grade levels. The authors suggest student-learning projects as a means of adapting and differentiating across the curriculum. They further address the connection between assessment and differentiation and the use of portfolios. In the final

chapters, the focus is on the use of technology, but due to the age of the document (1996), the chapters on technology are irrelevant today.

Two of the documents (*Independent Together: Supporting the Multilevel Community* and *Engaging Middle-years Students in Learning*) were readily available and easy to access while the other two (*Curricular Connections: Elements of Integration in the Classroom* and *Success for all Learners: A Handbook on Differentiating Instruction*) were not. Lack of accessibility undoubtedly influences how busy classroom teachers use *Success for All Learners* and *Curricular Connections*. *Success for all Learners* is not available on the MET website or in an electronic format. Nonetheless, copies should be available in Manitoba schools as MET typically gives a copy of all newly published documents to schools. In the local school where this study took place, the teachers were unsure if a copy of the document existed in their school and they did not own copies themselves. Further, not prominently featured with the other curriculum documents, is the *Curricular Connections* document, so teachers may not be aware of its existence. The document focuses on definitions and a rationale for integrating curriculum, but it does not provide many practical strategies regarding the process. Teachers desiring step-by-step guidance to integrate the curriculum may find this document impractical.

Overall, all four documents offer more theory and generalities than practical hands-on applications for teachers. General terms and descriptions are typical within the support documents. Given this information, it may explain why MET describes support documents as “generic” documents because they do not give specific strategies or systematic guidance for teachers as the curriculum frameworks do. Busy classroom teachers may be less likely to access or use the support documents due to lack of accessibility, and/or familiarity with them, as was the case for the teachers recruited for this study.

This analysis of some of the MET documents revealed an answer to one of my initial inquiry questions, is one type of inquiry learning promoted by MET? Throughout the documents Guided Inquiry was the most common inquiry strategy suggested. Therefore, this led to the decision to use Kuhlthau, Maniotes, and Caspari's (2012) guided inquiry framework. As a result of this decision I purchased copies of *Guided Inquiry Design: A Framework for Inquiry in Your School* (Kuhlthau, Maniotes, & Caspari, 2012) for each of the active collaborators involved in the study. The intention was to use the book as a study guide and resource as the teachers prepared their guided inquiry unit for use with the new IPP. Two inquiry questions remained unanswered in this study, 1) Are there common characteristics of inquiry-based learning, project-based learning, experiential learning, place-based learning, cooperative learning, 21st-century competencies, and authentic learning? If so what are they? and 2) Can these characteristics be integrated into an inclusive, interdisciplinary framework (the new IPP) that supports teaching curricular content in middle-years classrooms?

**Learning theory.** Constructivism is a complex idea that has been considered a construct, a metaphor, and a theory by philosophers, psychologists, sociologists and educators (Lowenthal, & Muth, 2008). Typically, within the field of education constructivism is used to reference a theory of knowledge and learning (Fosnot, & Perry, 1996; Jones & Brader-Araje, 2002; Lowenthal & Muth, 2008). "As a theory of learning, constructivism focuses on the implications of 'constructing knowledge' for learning (Lowenthal & Muth, 2008).

Therefore, based on the various author's descriptions of the construction of knowledge, the central learning theory promoted within the MET documents reviewed seems to be constructivism (ELA, 1998; math, 2013; science, 2000; social studies, 2013; Independent

together, 2003; Engaging middle-years students, 2010). For example, the authors of the social studies curriculum framework, describe learning as:

... the active process of constructing meaning. It involves the interaction of prior knowledge, motivation and purpose, and new experiences. The learning process varies from one individual to another and is influenced by many personal, social, and cultural factors. Learning is more meaningful when individual backgrounds are acknowledged and valued when learners are provided with opportunities to reflect critically on their own views, and when students are encouraged to broaden their perspectives through informed and focused interaction with others (Kindergarten to Grade 8 Social Studies, 2003, p. 5).

In the Grade 5-8 Science curriculum framework the following description of learning is provided, “learning ... involves the process of linking newly constructed understandings with prior knowledge and adding new contexts and experiences to current understandings” (Manitoba Education & Training, 2000, p. 1.3). Additionally, the authors of the support document *Independent Together* (2003), make direct reference to social constructivism: “the theoretical ideologies of this resource ... reflect Manitoba’s outcome-based curricula grounded in social constructivist underpinnings and current brain-based research” (p. vii).

The different descriptions of learning emphasize individual and collaborative constructions of knowledge. Cognitive theorists such as Piaget considered the construction of knowledge an individual pursuit (Bodner, Klobuchar, & Gelan, 2001; Piaget, 1965; Powell & Kalina, 2009) while social constructivist theorists like Vygotsky purported that construction of knowledge was a social pursuit (Powell & Kalina, 2009; Vygotsky, 1978; Yilmaz, 2011). From the descriptions above, the conclusion could be drawn that MET supports and promotes both cognitive and social constructivism.

Constructivism is not a theory of teaching, however, “constructivists argue that pedagogy should be based in theories of learning to ensure that teaching always centers on student learning” (Lowenthal and Muth, 2008, p. 4). Pedagogical practices are the techniques, or strategies a teacher uses when interacting with students. It is not surprising that many of the pedagogical practices recommended in the MET documents support a constructivist learning theory.

**Pedagogical practices.** The following pedagogical practices suggested in the MET documents are reviewed, (a) Community of Learners, (b) responsive teaching, (c) multiple intelligences, and (d) discovery learning. The primary inclusive pedagogical practices featured within the MET documents, and analyzed, are DI, and UDL. An investigation of these concepts within current literature had two purposes: a) to find if and how they proposed integrating curriculum and inclusion, and b) to show the research base of each practice that the new IPP may include. Promoting evidence-based practices was one of the basic functions of a pedagogical planner.

***Community of Learners.*** Referenced in the Manitoba documents reviewed (*Independent Together: Supporting the Multilevel Community; Engaging Middle-years Students in Learning, & ELA*) is a Community of Learners model. The authors did not provide a formal definition of the model within the documents. Authors of current literature concerning a Community of Learners (see Glossary) have portrayed the model as an alternative approach to a traditional classroom environment. For example, Brown and Campione (1996) argued that a traditional classroom setting was typically a space where students received knowledge passively from the teacher. In contrast to the traditional classroom, active engagement in the learning process

through critical inquiry and self-reflection is key to a Community of Learners. Students are actively involved in gaining new knowledge.

Brown and Campione (1996) advocated for democratic student-centered learning that encouraged the active involvement of students in designing learning experiences and taking responsibility for teaching peers. A Community of Learners is a place where difference is recognized and legitimized and where everyone can be an expert at something. A teacher approaching their classroom as a Community of Learners acts as a “role model of learning and as a responsive guide to students’ discovery process” (Brown & Campione, 1996, p. 153). The teaching focus was on deep learning of smaller amounts of curricula content, as opposed to surface learning of a greater number of curricular outcomes.

With a strong focus on group interaction, a Community of Learners model supports a social constructivist theory. Brown and Campione (1996) maintained that cooperative learning was essential to students’ growth in a Community of Learners (Brown, 1997; Brown & Campione, 1996, Crawford, Krajcik, & Marx, 1999; Winthrop; 2007). Brown and Campione (1996) recommended two essential cooperative learning strategies reciprocal teaching (Oczkus, 2003) and the jigsaw method (Aronson, 1978).

Reciprocal teaching is a scaffolded (see Glossary) instructional strategy typically associated with teaching reading comprehension through the use of four thinking strategies (a) predicting, (b) clarifying, (c) questioning, and (d) summarising (Ozckus, 2010). Reciprocal teaching utilizes a guided practice of a gradual release of responsibility (GRR) model (Fisher & Frey, 2008; Grant, Lapp, Fisher, Johnson, & Frey, 2012; Hacker & Tenet, 20002; Sullivan, 2009). The GRR is a model designed to help teachers understand how to release the responsibility for learning to the student gradually.

The gradual release process begins with a student first observing then practicing with a teacher's guidance, and finally taking ownership of the idea or concept and teaching it to his or her peers (Palincsar & Brown, 1984). Language sometimes associated with the GRR model is “I do,” “we do,” and “you do” (Fisher & Frey, 2008; Grant, Lapp, Fisher, Johnson, & Frey, 2012). Reciprocal teaching can be used to scaffold instruction in any subject area within any grade as reading comprehension is required at all levels of education (Hacker & Tenent, 2003; Rosenshine & Mesiter, 1994).

Research on reciprocal teaching has netted varying results. Some research shows that reciprocal teaching is an effective tool for teaching comprehension skills to students who tend to be good decoders but struggle with comprehension (McCallum, 2014). Brown and Campione found an improvement of up to two years on standardized tests for students taught with a reciprocal teaching method (1990). Additionally, Palincsar and Brown (1984) found that once the students learned the skills of summarizing, questioning, and clarifying within the context of ELA they were transferrable to other subjects such as science and social studies. However, the overall effect size (see Glossary) according to McCallum's (2014) analysis of research regarding reciprocal teaching has varied from 0.32 to 1.5. McCallum explains that many of the studies conducted about reciprocal teaching use small sample sizes, and typically involved many variables (teaching experience, group size, conversation skills of students, and initial reading abilities of students) making it difficult to determine if reciprocal teaching was the main cause of the results.

There are multiple versions of the jigsaw method (Tewksbury, 1995; Willett, Kim, & Gochfeld, 2013). The jigsaw method described in the MET documents is a method developed by Aronson (1978) that involves dividing the class into home learning groups to gather research and

become experts on a chosen inquiry topic. Once the home groups have become experts, they subdivide allowing one expert from each home group forms a new group. At this point, each expert shares their expertise with the new group before returning to their home group to “teach” what they learned. Jigsaw methods are a popular strategy in many classrooms today and are used across subject areas (Adams, 2013; Aronson, 1997).

The jigsaw method is considered an inclusive strategy and can be used as a scaffold (Darnon, Buchs, & Desbar, 2012; Huang, Liao, Huang, & Chen, 2014). For example, numerous DI strategies introduced during the home learning group phase allows all students to become experts in their topic. Research conducted on the jigsaw method has shown it is an effective strategy for teaching literature and grammar (Gocer, 2011), increasing student motivation, engagement and self-efficacy (Aronson & Bridgman, 1979; Darnon, Buchs & Desbar, 2012; Shume, Stander, & Sutton-Grier, 2016), as well as having a positive impact on academic performance and relationships between peers (Adams, 2013; Tarhan, Ayyildiz, Ogunc, & Sesen, 2013).

***Responsive teaching.*** The authors of the MET support document *Engaging Middle-years Students in Learning* describe responsive teaching:

Responsive teaching and learning experiences are those experiences that are purposeful, differentiated, collaborative, student-centred, and designed with students’ developmental and learning needs in mind. Responsive educators focus instruction and resources so that all students can develop and learn. Ongoing assessment informs instructional planning and helps teachers tailor instruction to address student-learning needs. Students and teachers use assessment to monitor and confirm learning and to set new learning goals. (Manitoba Education, Citizenship, and Youth, 2010).

In their book *Integrating Differentiated Instruction and Understanding by Design*, Tomlinson, and McTighe (2006) named several benefits of using a responsive pedagogy. The first benefit asserted was students in a responsive classroom were more willing to take risks in the learning process. A positive working relationship between teacher and student is necessary for a student to take risks in learning. When a student thought his or her teacher understood him or her as a learner, he or she was more prepared to take learning risks. Tomlinson and McTighe suggested that a fundamental tenet of responsive teaching was a positive working relationship between the teacher and his or her students. Also, Tomlinson and McTighe (2006) proposed that a positive relationship between educators and students support an active overall learning environment that resulted in more student engagement.

Responsive teachers are aware of, and know how to respond to, student readiness (i.e., skills, knowledge, and abilities of a student), interests, and learning profiles (Tomlinson, Brighton, Hertberg, Callahan, Moon, Brimijoin, Conover, & Reynolds, 2003; Tomlinson & McTighe, 2006). Differentiating instruction helps students continuously move forward and grow in their academic abilities. Responsive teaching involves observation, taking note of students' interests and a making a constant effort to include student interest with the curriculum, which can improve student engagement and motivation in the classroom. Finally, responsive teachers consider individual student learning profiles (preferred learning mode) allowing each student to work from his or her strengths while simultaneously responding to their ongoing learning needs (Tomlinson and McTighe, 2006).

Associated with characteristics of responsive teaching are characteristics of expert teaching (Hattie, 2012; Schempp & Woorons Johnson, 2006). For example, Hattie (2012) suggested that expert teachers presume all students can be successful when content is accessible.

Using DI strategies is one method of making content accessible. Not only did curricular content need to be accessible, Tomlinson (2015) strongly supported the notion that responsive or expert teachers needed high expectations of all students. Using DI, teachers should be “teaching up” to ensure all students feel challenged. Teaching up requires the use of quality curricula and expert pedagogical practices like those included in the definition of responsive teaching in this Chapter (Hattie, 2012; Sousa & Tomlinson, 2012; Tomlinson, 2015). Expert teachers do not rely on one teaching strategy. They know and use a variety of strategies in response to students’ needs (Chlidre, Sands, & Pope, 2009; Findell, 2011; Hattie, 2012; Hogan, Rabinowitz, & Craven, 2011). Rouse (2008) suggested that many of the challenges students experience in school today are the direct result of unresponsive teaching. Responsive teaching focuses on challenging students academically at the right level. With a focus on cognitive development and training, responsive teaching aligns with a cognitive constructivist theory.

*Multiple intelligences.* Howard Gardner “developed the idea of multiple intelligences in response to his dissatisfaction with typical intelligence tests” (Peterson & Hittie, 2003, p. 173). Initially, Gardner named eight intelligences (verbal/linguistic, musical, logical/mathematical, visual/spatial, movement, interpersonal, intrapersonal, naturalist). Six years later, he added a ninth, existentialist. Gardner (1987) held a pluralistic view of intelligence. This view has been controversial and has not gained much research support (Allix, 2000; Denig, 2004; Sternberg & Grigorenko, 2004; Waterhouse, 2006). Despite the controversy, some have suggested that the Multiple Intelligences (MI) framework allowed intelligence to be viewed differently (Allix, 2000; Davis, Christodoulou, Seider, & Gardner, 2012). Others such as Katz (2012) believed students should name their different intelligences as a way of demystifying the notion that some students are not intelligent.

Over the years, Gardner and his theory faced criticism for having a limited impact on learning (Morgan, 2010; Hattie, 2012; Waterhouse, 2006). One of the most vocal critics has been Willingham, a professor of psychology. According to Willingham (2004), Gardner claimed that psychologists who upheld the use of psychometrics to measure intelligence understood intelligence to be a “unitary trait” which he did not. Willingham (2004) argued that psychometrics was a systematic way of evaluating intelligence and pointed to a longitudinal review that presented data from over “60 years from some 130,000 people around the world” (p. 20). The review suggested a universal consensus in favour of the “hierarchical model” of intelligence, not the pluralistic model Gardner proposed.

Willingham (2004) also criticized Gardner’s claim that the multiple intelligences worked separately from each other. The multiple intelligences were not measurable, so Willingham concluded they did not meet the criteria to be intelligence. Again, he pointed to “data collected over the past 100 years [that] consistently show[ed] performances on intellectual tasks are correlated” (p. 21). Willingham (2004) concluded that “Gardner’s theory [was] simply not all that helpful. ... All in all, educators would likely do well to turn their time and attention elsewhere” (p. 24). Hattie (2012) reiterated this point, “it is desirable to have *multiple ways of teaching* ... there is no need to classify students into different ‘intelligences’” (p. 91).

Despite a lack of evidence for this construct or its applications, MI with a focus on students and their strengths has resonated with classroom teachers across North America. MI has influenced planning as teachers have designed instruction intended to engage students’ various intelligences (Allix, 2000; Armstrong, 2009; Denig, 2004; Gardner, 2004; Kornhaber, 2004; Mettetal, Jordan, & Harper, 1997). The popularity of MI surprised Gardner (1995):

I was unprepared for the large and mostly positive reaction to the theory among educators. Naturally, I was gratified by this response and was stimulated to undertake some projects exploring the implications of MI theory, I also took pleasure from -- and was occasionally moved by --the many attempts to institute an MI approach to education in schools and classrooms (Gardner, 1995, p. 200).

Multiple Intelligences with a natural focus on intelligence aligns with cognitive constructivism, as it is a model concerned with how people learn.

Presented in this chapter, is a review and analysis of three pedagogical practices, highlighted in some of the eight MET documents. Featured individually, the three practices have similar purposes. Each of the practices is student centred as they focus on student engagement and the learning process. Reciprocal teaching, the jigsaw method, and multiple intelligences are strength-based strategies (that identify student strengths and build on them) and support responsive teaching. Responsive teaching has a strong focus on positive teacher-student classroom relationships, so it supports the Community of Learners model. Responsive teachers are encouraged to determine and understand student learning profiles and interests. MI might be one useful way of finding a student's learning preferences and styles. Understanding a student's learning preferences and interests helps the teacher plan engaging lessons. It also supports decision making as teachers differentiate instruction. Therefore, the collaborative team considered all three practices for inclusion in the new IPP.

Earlier in this chapter, I showed various practices associated with discovery learning. Specific instructional strategies related to discovery learning, featured in the MET documents reviewed, were inquiry-based learning (ELA, science, social studies, Independent Together, Engaging Middle-years Students); problem or project-based learning (ELA, social studies,

Engaging Middle-years Students); experiential learning (math, science, social studies, Engaging Middle-years Students); and cooperative learning (ELA, math, science, social studies). The Glossary gives a definition of each of these instructional strategies. The commonalities between the four strategies led to the decision to integrate the strategies listed above, under the heading of Discovery Learning, for the rest of this literature review.

**Discovery learning.** Discovery learning is often linked to the progressive education movement and John Dewey (Knoll, 1997). Dewey, well known for his concept of experiential (or discovery) learning, suggested an “organic connection between education and personal experience” (p. 25) making one inseparable from the other. According to Dewey, learning took place through active, collaborative, problem solving using authentic problems relevant to a student's life and experiences (Dewey, 1938). Dewey advocated for student-centred learning that included social interaction using language. Language was what Dewey (2005) referred to as “the chief instrument of learning” (p. 12).

Jerome Bruner coined the term “discovery learning” in 1960. Bruner (1960) described discovery learning as “all forms of obtaining knowledge for oneself by the use of one’s own mind ... permitting the student to put things together for himself, to be his own discoverer” (p. 21). Bruner (1960) considered discovery learning an active, participatory process that could be motivating as students made new discoveries. Active participation in discovery learning taught students how to discover. Bruner (1960) wrote, “I have never seen anybody improve in the art and technique of inquiry by any means other than engaging in inquiry” (p. 28). In other words, students were learning the skills necessary for discovery, while simultaneously practicing the discovery process. Discovery learning involves collaborative group work, formulating and

analyzing a problem, generating a hypothesis, reflection, finding facts, and developing a knowledge base (Hmelo-Silver, 2004).

Bruner (1960) and Dewey (1938) had similar ideas about discovery. They considered discovery learning an active process needing interaction with others, and as such, they adhered to a constructivist learning theory (Applefield, Huber, & Moallem, 2000; Knoll, 1997; Powell & Kalina, 2009). Discovery learning touted in the literature as a method that engages and motivates students (Cornell & Clark, 1999; Liu & Hsiao, 2002;) focuses on students, their interests, and life experiences (Reeves, Herrington & Oliver, 2005). Discovery learning is referred to in the literature as inquiry-based learning (Barrows, 2006), experiential learning (Dewey, 1938), problem-based learning (Barrows, 1986, 2002; Delisle, 1997), project-based learning (Knoll, 1997), student-centered learning (Kahn, & O'Rourke, 2005; Savery, 2006) and constructivist learning (Apps, & Carter, 2006).

***Tenets of discovery learning.*** A review of relevant literature revealed many similar tenets or principles between the various discovery learning approaches. Common principles such as (a) authentic learning, (b) student-centred learning, (c) a connection to real life experiences, (d) the use of ill-defined problems or essential questions, (e) integration of curriculum, (f) collaboration, (g) construction of new knowledge, and (h) a democratic classroom (Barrows, 2002; Bruner, 1960; Dewey, 1938; Hmelo-Silver, 2007; Kahn & O'Rourke, 2004; Powell & Kalina, 2009; Ravitch, 2007; Savery, 2006; Wurdinger, Haar, Hugg, & Bezon, 2007). The Glossary provides a definition of each tenet.

In current literature discovery learning is supported as an effective instructional strategy for Kindergarten to Grade 12 classrooms. Discovery learning is most effective when students receive support during the discovery process (Furtak, Seidel, Iverson, & Briggs, 2012;

Mastropieri, Scruggs & Butcher, 1997; Mastropieri, Scruggs, Norland, Berkeley, McDuffie, Tornquist, & Connors, 2006; Scruggs, & Mastropieri, 2007; Walker & Leary, 2009). Positive outcomes for discovery learning include improved content and conceptual learning, long-term knowledge retention, increased problem-solving skills, and enhanced development of 21<sup>st</sup>-century competencies (Bell, 2010; Minner, Levy, & Century, 2010; Strobel & Barendveld, 2009; Thomas, 2000; Zandvliet, 2012). However, the use of discovery learning is not without controversy.

***Controversy around discovery learning.*** Discovery learning has been characterized in the literature as an unguided or minimally guided strategy, meaning students receive little guidance from the teacher during the discovery process (Kirschner, Sweller, & Clark, 2004, Mayer, 2004). Controversy surrounding discovery learning is often focused on this characterization. Kirschner, Sweller, Clark (2006) and Mayer (2004) have argued that discovery learning instructional strategies pay little attention to human cognitive architecture making them largely ineffective. Human cognitive architecture is similar to the organization of structures connected to sensory, working, and long-term memory (Kirschner, Sweller & Clark, 2006). According to Kirschner et al. (2006), the learning process should involve a change in long-term memory.

Kirschner, Sweller, and Clark (2006) wrote that discovery learning placed a heavy demand on the working memory while students searched for new material. They purported that during the search for new information students needed to decide what information was applicable while simultaneously trying to ignore extraneous details. This meant that students could spend large amounts of time searching for answers but minimal assimilation of knowledge to long-term memory could occur. Assimilation did not occur when students were unsure about

which information related to the problem they were investigating (Kirschner, Sweller & Clark, 2006). Further, students with cognitive disabilities (i.e. Downs Syndrome, Traumatic Brain Injuries), or neurodevelopmental disorders (i.e. Attention Deficit Disorder) that affect executive function have a decreased ability to operate in any of the three memory structures. These students often find the open-ended nature of discovery learning particularly challenging, especially when no supports are in place (Alloway, 2006; Apps & Carter, 2006; Yilmaz, 2011). Likewise, novice learners may find the discovery process challenging as they lack the skills required to connect new knowledge to existing knowledge found in long-term memory (Alloway, 2006; Kirschner, Sweller & Clark, 2006, Mayer 2001).

***Response to controversy.*** In contrast, constructivist authors disagreed with Kirschner, Sweller and Clark (2006) regarding their stance on discovery learning (Alfieri, Brooks, & Aldrich, 2011; Hmelo-Silver, Duncan & Chinn, 2007; Hung, 2009; Jonassen, 2009; Schmidt, Loyens, Van Gog, & Paas, 2007). For example, Jonassen (2009) disputed the idea that learning could simply be “a change in long-term memory.” He contended that the process of learning and human cognitive architecture were far more complex and multidimensional than suggested by Kirschner et al. Others asserted that discovery learning is compatible with human cognitive architecture if students received support and guidance (Alfieri, Brooks, & Aldrich, 2010; Hmelo-Silver, Duncan, & Chinn, 2007; Mayer, 2004; Scruggs & Mastropieri, 2007; Schmidt, Loyens, Van Gog, & Paas, 2007).

***Success with discovery learning.*** Teacher support and guidance were acknowledged numerous times in the literature as key components to student success with discovery learning (Barrows, 2002; Crawford, Krajcik, & Marx, 1999, Dewey, 1938; Hung, 2009; Parker, 2007, Thomas, 2000). A wide range of supports were described in the literature and included practices

such as pre-teaching, practicing, modeling, helping students identify ways to self-direct their learning, and scaffolding (Azer, 2008; Hmelo-Silver, Duncan, & Clark, 2007; Powell & Kalina, 2009; Puntambekar, & Hubscher, 2005; Savery, 2006; Schmidt, Loyens, Van Gog, & Paas; Schmidt, Rotgans, & Yew, 2011; Yilmaz, 2011). The most common strategy found in the literature reviewed was scaffolding (Tobias & Duffy, 2009).

Scaffolding is a process, “that enables a child or novice to solve a problem, carry out a task or achieve a goal which would be beyond his [or her] unassisted efforts” (p. 90). In other words, scaffolding enables students to work in their zone of proximal development (Vygotsky, 1978). Adults can offer support by directing the student towards possible solutions, modeling options, encouraging risk taking, supporting students as they interpret errors, and helping frustration levels to still be low. The GRR model was an example of scaffolding. Other examples of scaffolding referenced in the literature were (a) computers, (b) computer software, (c) assistive technology, (d) WebQuests, (e) pre-teaching collaboration skills, (f) whiteboards, or bulletin boards for tracking and illustrating a problem-solving process, and (g) peer support (Bell, Urhahne, Schanze, Ploetzer, 2010; Hmelo-Silver, Duncan, & Chinn, 2007; MacGregor & Lou, 2005; Puntambekar, & Hübscher, 2005; Resier, 2004; Schmidt, Loyesm Van Gog, & Paas, 2007). Scaffolds may also include models, checklists, inventories, templates, study guides, protocols, and graphic organizers (Freeze & Freeze, in press, 2018a; Freeze & Freeze, in press, 2018b).

Some literature purported the use of explicit instruction as a form of scaffolding for students with disabilities, before embarking on the discovery process (Alfieri, Brooks, Aldrich & Tenenbaum, 2011; MacGregor & Lou, 2005). The literature suggests that direct instruction is a method of pre-teaching and practicing the skills needed to conduct discovery learning. The

literature also promotes direct instruction as a method of supporting students as they immersed themselves in background knowledge prior to developing essential questions (Kuhlthau, Maniotes, & Caspari, 2012).

During scaffolding, adults (or more capable peers) offer support in many ways: by directing the student towards possible solutions, modeling options, encouraging risk taking, supporting students as they interpret errors, and helping frustration levels to still be low. Teachers face the challenge of knowing how much scaffolding to put in place and when (Thomas, 2000). As adults direct and scaffold tasks they can use the GRR model (slowly allowing the student to take control of the task as they are capable) to circumvent a student's overreliance on external supports (Kuhh, & Pease, 2008; Pea, 2004; Pearson & Gallgher, 1983; Reiser, 2004; Schmidt, Rotgans, & Yew, 2011; Routman, 2012; Wood, Bruner, & Ross, 1976).

In the literature about discovery learning, advocacy for scaffolded, guided discovery was prevalent (Wood, Bruner, & Ross, 1976; Hmelo-Silver, Duncan, & Chinn, 2007; Gillies, 2016; Hung, 2009; Kelly, 2000; MacGregor, & Lou, 2005; Parker, 2007; Schmidt, Rotgans, & Yew, 2011; Skylar, Higgins, & Boone, 2007). Barron and Darling-Hammond (2010) wrote:

Students learn more deeply when they can apply classroom-gathered knowledge to real-world problems; inquiry-based [discovery] approaches are important ways to nurture communication, collaboration, creativity and deep thinking. ... the success of [discovery] approaches tend to be highly dependent on the knowledge and skills of those implementing them. If these approaches are poorly understood and mistaken for unstructured, their benefits are substantially reduced compared with when they are implemented by those appreciating the need for extensive scaffolding and constant assessment to inform their direction (p. 199).

The prevalence of literature and research supporting guided discovery, led to the decision to use a guided inquiry-learning framework during the implementation phase of the new IPP.

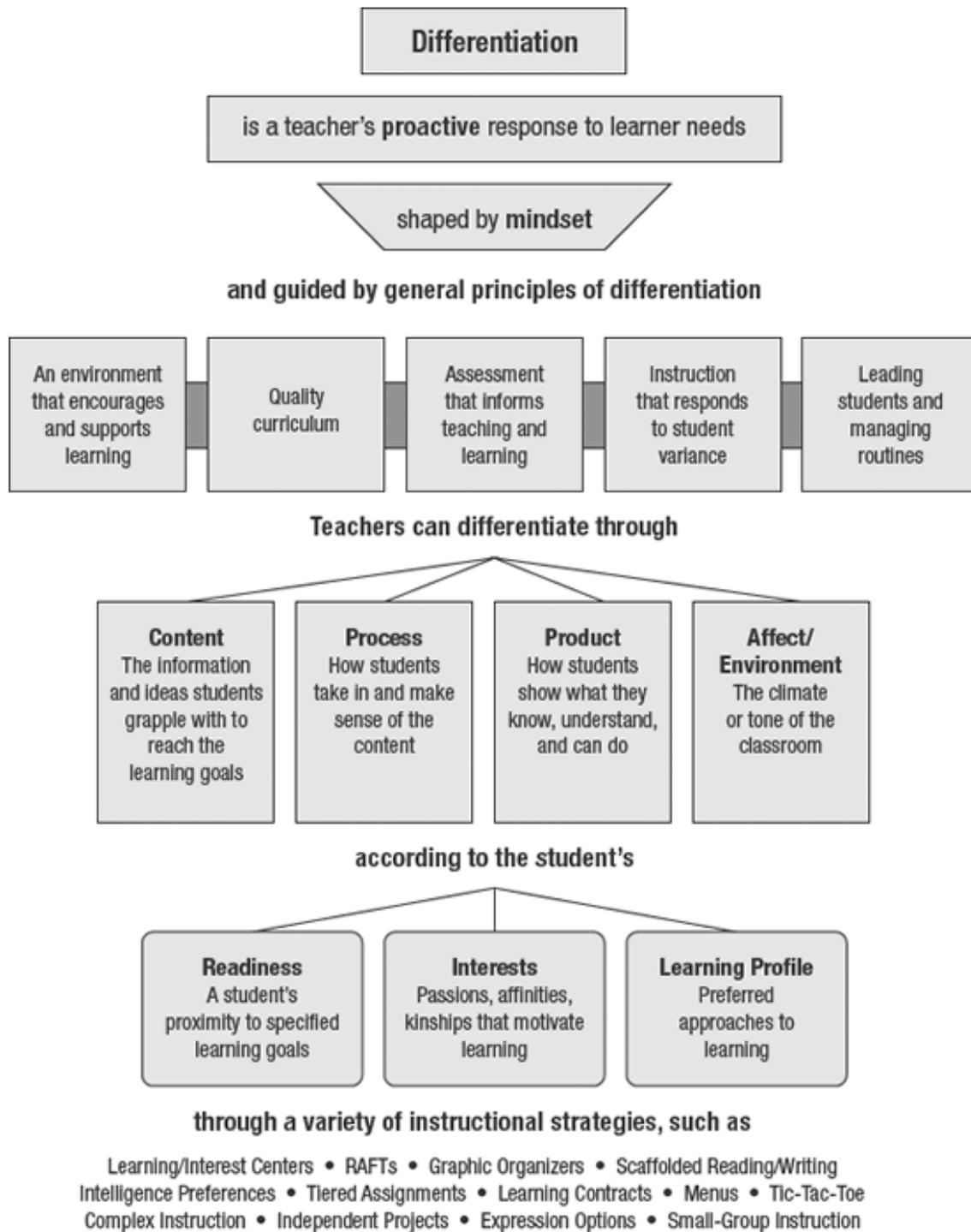
### **Inclusive Practices**

MET promotes two specific inclusive pedagogical strategies, Differentiated Instruction (DI) and Universal Design for Learning (UDL). MET's definition of DI and UDL has already been presented in this Chapter. Next, I present a more in-depth exploration of DI and UDL.

**Differentiated instruction.** DI is not a new idea. Yet, many teachers struggle to implement it (Rutledge, 2003; Tomlinson, 1995; Tomlinson, Brighton, Hertberg, Callahan, Moon, Brimijoin, Conover & Reynolds, 2003). "Differentiated instruction focuses on teaching strategies that give diverse students multiple options for taking in and processing information, making sense of ideas, and expressing learning" (Smith & Throne, 2007, p. 8). DI is a model of inclusion known as an approach for use in diverse classroom settings (Subban, 2006). The underlying premise of DI is that students can, and do, learn in different ways (Smith, 2007). Carol Ann Tomlinson considered DI responsive teaching. As such, DI is a student-centered approach with an emphasis on student participation and accountability (Smith & Throne, 2007; Tomlinson & McTighe, 2006).

Figure 1 presents a framework of Differentiated Instruction developed by Tomlinson. It encapsulates the general principles of DI, along with a description of the way's teachers can differentiate through content, process, product, and affect. It also emphasizes the student-centred approach by highlighting a student's readiness, interests, and learning profile.

Figure 1. A Framework of Differentiated Instruction



(Tomlinson & Moon, 2013<sup>1</sup>)

<sup>1</sup> Used with permission from Carol Ann Tomlinson (2017), and Association for Supervision and Curriculum Development (ASCD) copyright clearance center (2017).

Finding empirical evidence in current literature supporting its use was somewhat of a challenge. There were many anecdotal reports regarding its effectiveness (Subban, 2006). Positive effects of DI such as the promotion of student engagement and interest were noted (Johnsen, 2003). Some authors reported that more experienced teachers, who were typically more familiar with curricular content, tended to favour using DI over less experienced teachers (Affholder, 2003). Additionally, teachers who experienced early success with DI were more inclined to continue using it (Affholder, 2003; Tomlinson, 1995). The DI model flourished in a school where support structures like ongoing training, mentoring, and professional development were in place.

***Fundamental principles of differentiated instruction.*** There are several fundamental principles of DI. For example, lesson plans developed using a DI student-centered approach need to be flexible, respectful, assume competence, knowledge centered and broad enough to encompass all students (Tomlinson, 2001; Tomlinson, Brighton, Hertberg, Callahan, Moon, Brimijoin, Conover, & Reynolds, 2003). Offering multiple approaches to content, process, product, affect (awareness of students' emotional states) and learning environment while considering student readiness (point of entry), interest, and learning profile supports DI (Lawrence-Brown, 2004; Smith & Throne, 2007, Subban, 2006). Therefore, to differentiate appropriately, the teacher must rely on data gathered through regular ongoing assessment (Sousa & Tomlinson, 2010). A classroom teacher cannot take a "one size fits all" approach to planning or assessment, but it does not mean a teacher needs to plan 25-30 individual lessons either (McBride, 2004; Tomlinson & McTighe, 2006). There is a close link between DI, quality curricula, planning, assessing, and teacher knowledge about the curriculum (Sousa & Tomlinson, 2010; Tomlinson, Brighton, Hertberg, Callahan, Moon, Brimijoin, Conover, & Reynolds, 2003).

*Differentiated instruction strategies.* There are varieties of DI strategies that a teacher can use in the classroom (Sousa & Tomlinson, 2010; Tomlinson & McTighe, 2006; Tomlinson, 2001). For example, a teacher could incorporate mnemonics, graphic organizers, WebQuests, concept mapping, and cooperative learning (Kim MacGregor & Lou, 2004; Hattie, 2012; Scruggs, Mastropieri, Berkeley, & Graetz, 2010; Rohrback, Ginsburg-Block, Fantauzzo, & Miller). However, research conducted on different DI strategies netted mixed results. For example, some research conducted on graphic organizers indicated that when blended with other strategies, graphic organizers were effective in helping some students acquire, comprehend, and recall curricular content, while other research reported ambiguous results (Knight, Spooner, Browder, Smith, & Wood, 2013; Simons, Griffin, & Kameenui, 1988; Smith & Thorne, 2007). Research concerning cooperative learning provided support in favour of its use as a peer-learning model with most students (Gillies, 2016; Hattie, 2012). Most students tended to make more gains academically in cooperative learning groups when they were (a) learning new concepts, (b) solving both verbal and spatial problems, (c) categorizing, and (d) required to guess, judge or predict (Roseth, Fang, Johnson, & Johnson (2006). Additionally, Rohrbeck, Ginsburg-Block, Fanuzzo, and Miller (2003) found compelling evidence that peer-assisted learning (PAL), a version of cooperative learning, had a positive impact on the academic achievement and social interaction of many vulnerable students. Research conducted by Jimenez, Browder, Spooner, and Dibiase (2012) supported by their findings.

Research on differentiating with technology, assistive technology, and devices like iPods, iPads, and iPhones, generally established positive academic results for reading, spelling and writing (Kagohara, van der Meer, Ramdoss, O'Reilly, Lancioni, Davis, Rispoli, Lang, Marschik, Sutherland, Green, & Sigafos, 2012; Maor, Currie & Drewry, 2011; Sze, 2009). The Center for

Applied Research in Educational Technology (CARET) found that when coupled with DI, technology use resulted in improved engagement and improved student learning when it was (a) integrated with curricular outcomes, (b) included collaborative or cooperative learning, (c) adjusted to student ability and experience, (d) used in the regular classroom setting as opposed to a computer lab, (e) used to provide opportunities for students to create products using multi-media, and f) supported by the school community as a whole. “Technology has become a powerful ally of students and teachers in many inclusive classrooms” (Sze, p. 423, 2009) and a tool that responsive teachers can use as a method of differentiation (Smith & Thorne, 2007). While a teacher cannot develop an inclusive pedagogy based on one concept like DI, it is a “valuable strategy for supporting learning of everyone when it is used in an ‘elastic and creative’ way rather than as a ‘simplistic linear’ means of sorting pupils into more or less able” (Nind, 2005, p. 4).

**Universal design for learning.** Universal Design for Learning is a framework developed to support curriculum access for students with special needs. David Rose and Ann Meyer conceived the original theory and framework for UDL in the 1990s. “UDL drew upon neuroscience and education research and leveraged the flexibility of digital technology to design learning environments that, from the outset, offered options for diverse learner needs” (Meyer, Rose, & Gordon, 2014). Initially, UDL curriculum included:

- goals that provided an appropriate challenge for students,
- flexible materials that provided multiple representations of content,
- flexible and diverse methods, and

- flexible assessment provided accurate, ongoing information so a teacher could continually adjust instruction and maximize learning (Hitchcock, Meyer, Rose & Jackson, 2002, p. 1).

The first idea behind UDL was to provide accessible curriculum to individual students and to support individual students in achieving their learning goals. Hitchcock, Meyer, Rose, and Jackson (2002) suggested UDL was a “new framework for curriculum reform that holds promise for students with disabilities, in particular, and raises countless possibilities for all students” (p. 1). Today Meyer, Rose, and Gordon (2014) view UDL as a way of developing expertise in students and supporting the “overall aim of education” (p. 5). UDL was originally designed with a focus on how individual students accessed curricular content. Gradually the focus shifted towards making the curriculum accessible to all students. Today, UDL places all students at the center of learning by providing real learning opportunities for everyone and “...emphasizes the importance of planning in advance—of designing curriculum that, from the outset, assumes and plans for the natural variability of diverse learners” (Meyer, Rose, & Gordon, 2014, p. 87). Meyer, Rose, and Gordon (2014) further wrote that there is a critical need to design curriculum using the principles of UDL.

UDL guidelines were developed, for use by instructional designers of curriculum and as a scaffold for teachers to use in their daily practice (Meyer, Rose, & Gordon, 2014). The guidelines merged three networks of learning (affective, recognition, strategic) with three principles (multiple means of engagement, representation, action and expression) that resulted in nine guidelines and multiple checkpoints for implementation. A framework that has been purported by Al-Azawei, Serenelli, and Lunqvist (2016) as a model that requires “a lot of effort and time” to understand and implement (p. 53).

In Manitoba, many educators are familiar with one model of UDL called the Three Block Model, developed by Dr. J. Katz (2012). Katz promoted her model and conducted research on it within five Manitoban school divisions (Katz, 2015). As already elucidated, Katz (2015) considers UDL a framework for “achieving inclusive education” (p. 4). Both Katz Three Block Model of UDL and the new IPP have the goal in mind of supporting teachers as they achieve inclusion in their classrooms. Each model “has a set of principles that focus on reducing barriers in learning environments and increasing access to curriculum and instruction for diverse learners” (Rao, Ok, Bryant, 2014, p. 153).

Katz research on her Three Block Model netted some positive results for both teachers and students. For example, teachers reported a higher level of job satisfaction as they indicated a change in students behaviour and levels of engagement, and students seemed to be more willing to take risks in their learning. However, Katz 2015 study lacked empirical evidence of academic performance

**Research on UDL.** UDL “has become increasingly popular in the past decade and is often referenced in the literature, yet the research base supporting its efficacy is in a nascent phase” according to Rao, Ok, and Bryant (2014, p. 154). Edyburn (2010) agreed, “of concern is the fact that to date there has been little direct research on UDL” (p. 34). The majority of the 200 studies Roa, Ok, and Bryant (2014) reviewed about UDL were descriptive, not empirical studies. They found two major issues in the studies reviewed (a) inconsistency in the way UDL is defined, and (b) unclear operational descriptions of UDL principles. Roa, Ok, and Bryant (2014) further noted that for future research to be effective a set of standards should be established regarding “how UD(L) was applied in studies” and that studies should include “detailed reporting of UD(L) components” (p. 164).

Eydburn (2010) corroborated a lack of empirical evidence regarding the use of UDL and suggested: “we are left to our own devices to try to apply the UDL principles to create more accessible accommodations” (p. 36). He also wondered if “the demands of daily instruction will allow teachers to function effectively as instructional designers” (p. 37), given the lack of detail on specific strategies and evidence. An added critique of UDL is that the “UDL framework does not feature a component associated with the measurement of student learning outcomes” (Edyburn, 2010, p. 39). “As a result, within existing conceptualizations of UDL, there is no clear way to measure claims that UDL is effective for enhancing the academic performance of diverse students” (p. 39).

Katz and Sokal (2016) found that research on UDL has often focused on the effect of using UDL with students living with disabilities. They point out the irony of this, as UDL is promoted as a strategy for use with all learners. Katz and Sokal (2016) suggest further research needs to be conducted that includes a broader range of students to determine the complete effect of using UDL within diverse communities of learners.

### **Chapter Summary**

This chapter has provided (a) background information about pedagogical planners, (b) a rationale for using a pedagogical planner as the foundation for a new IPP, (c) an overview of eight relevant MET documents, (d) the learning theory purported in the MET documents, (e) a review of key pedagogical and inclusion practices promoted in the MET documents, and (f) a synthesis of research regarding the different practices. Chapter Three sets up the research design, describes the methods and procedures, and delineates the three research phases in detail and concludes with the data analysis process.

### **Chapter Three**

#### **Research Design and Methodology**

Collaborative action research was selected as the research methodology for this study. Traditional research methodologies adhere to the view that new knowledge derived from a study belongs to the researcher, while participative approaches create space for new knowledge to be co-constructed by the researcher and participants (Pine, 1997; Reason, 1998). According to Heron and Reason (1998), participative approaches embrace a participatory worldview; a “basic set of beliefs about the nature of reality and how it may be known” (Heron & Reason, 1997, p. 44). Heron and Reason (1997) consider collaborative action research (CAR) as a participative research method, and as such adheres to a participatory worldview.

A participatory worldview upholds an epistemological understanding of four ways of gaining knowledge: experiential, presentational, propositional, and practical (Heron & Reason, 1997). Experiential knowing is gained through direct encounters and experiences with people, places, or things. Presentational knowledge requires experiential knowledge but moves beyond the experience to an articulation or symbolic representation of the experience in written, oral, or artistic form. Propositional knowledge is demonstrated through the expression of theories and ideas, in spoken or written word and symbols. Practical knowledge needs action as a person demonstrates a particular skill or competence.

The four ways of knowing are strongly linked to the three stages of the learning design process outlined in Chapter Two. The conceptualization stage in the design process needs experiential knowledge as a teacher identifies the student population, context and environment as well as presentational knowledge of the pertinent curricular outcomes, aims, and methods of evaluation. Authoring, the second stage in the learning design process, requires both

presentational and propositional knowledge as a teacher decides on appropriate strategies to teach curricular outcomes. A teacher then uses practical knowledge as the final stage in the learning design process is activated, the implementation stage.

### **Collaborative Action Research (CAR)**

CAR activates, engages, and cycles iteratively through all four ways of knowing during a study. First, a question or questions are posed next a research method is chosen (propositional knowledge). Next, a method is applied in the context, or setting, of the participant's practice (practical knowing). As a team seeks to answer the research questions, they gain new experiences (experiential knowledge). Expressed in oral or written form (presentational knowledge), new experiences lead to a new understanding of the original questions (propositional knowing again). If new understanding prompts added questions, the knowledge cycle begins again (Reason, 1998).

Knowing will be more valid – richer, deeper, more true to life and more useful – if these four ways of knowing are congruent with each other: if our knowing is grounded in our experience, expressed through our stories and images, understood through theories which make sense to us and expressed in worthwhile action in our lives (Reason, 1998, p. 45).

A researcher using CAR strives to create a democratic, social space where relationship building occurs between collaborators (Armstrong & Moore, 2004; Pine, 2009; Reason & Bradbury, 2008). Pine (2009) added that through a democratic process collaborative action research can create equitability within a group of co-researchers. This sense of equitability may result in participants feeling liberated and refreshed in their practices (pedagogical practices in this study) as they consider and discuss new ideas and theories.

This study adopted a naturalistic inquiry orientation. A naturalistic orientation acknowledges setting and time as key features in the research design. “Working in the places where people live and work, naturalistic researchers draw on observations, interviews, and other sources of descriptive data, as well as their own subjective experiences, to create rich, evocative descriptions and interpretations of social phenomena” (Armstrong, 2010, p. 881). A school is a natural setting, and as already portrayed, was the setting for this study and the sources of data for this study, described later in this chapter, align with a naturalistic orientation.

Time is a vital element of a naturalistic orientation as, typically, a significant number of hours are spent in the natural setting. Time is needed to allow multiple observations of daily activities in the natural setting and engaging in multiple conversations with collaborative group members. Multiple conversations help the research facilitator gain insight and understanding of collaborative group members’ experiences and point of views (Armstrong, 2010). I spent approximately 200 hours in the natural setting (the school) during this study, observing the teacher’s pedagogical practices, interviewing, meeting, and engaging in dialogue with the teachers about their pedagogical practices. Additionally, as another method of communication and engagement, I communicated with the teachers through ongoing, regular, emails over the ten months of the study.

### **Credibility and Transferability**

Credibility is an important aspect of a naturalistic inquiry (Creswell, 2007). Accordingly, I used several approaches to build in credibility and transferability into this study. The length of time spent in the field influenced the amount and type of data that was collected. The longer a researcher stays in the field, "the more the pluralistic perspectives will be heard from the participants and the better understanding of the context of participant views" (Creswell & Miller,

2000, p. 128).

Creswell and Miller (2000) identified that having collaborators who are involved in all aspects of the study, adds “further credibility to [final] narrative accounts” (p. 128) as their words and actions are presented. Therefore, the presentation of the data in Chapter Five is descriptive and includes many of the collaborators’ recorded narrative accounts. The narrative accounts allow the author to highlight the different voices. Excerpts from my field notes, teacher observations, and meeting minutes, were used to enhance the descriptive nature of the text.

**Vivid descriptions.** A researcher establishes credibility through vivid descriptions of the data. The thick descriptions allow readers to connect to the context or a certain aspect of the study. This approach enables the reader to feel a connection to the participants or the situation described which might lead to transferability (Creswell, 2007; Creswell & Miller, 2000). To illustrate data's complexity, “a researcher *should* provide enough detail that readers may come to their own conclusion about the scene. Providing sufficient detail is contrasted with the author *telling* the reader what to think. Showing is rhetorically more difficult and usually requires more words than telling” (Tracy, 2010, p. 843).

**Member checking.** Lincoln and Guba (1985) identified member checking as perhaps the most important step in establishing credibility and a way to engage the collaborators. Member checking means providing an opportunity for collaborators to read and respond to transcripts of interviews, meeting minutes, coding and emergent themes. Participants can respond in agreement, suggest changes, and even disagree with the material they read. The teachers who collaborated in this study had several opportunities to participate in member checking. They were asked to review the transcripts of the first one-on-one interviews conducted and were given the opportunity to review the themes that emerged from the data. Ongoing member checking

occurred during each stage of the co-development of the new IPP as we dialogued, questioned, and reflected on the process and progress of the IPP.

I emailed the teachers the final set of codes and the themes that emerged and requested their feedback. I received feedback from two of the four teachers about the emergent themes. Both teachers confirmed they agreed with the themes. I received the following responses:

*I think that this looks great. To be able to summarize all of our ideas into 2-3 main themes is a huge undertaking and I would agree that themes #1 & 2 are two main ideas that are central to our profession and our discussions. I am looking forward to seeing how you present your findings.*

*Those themes do seem to fit with what I experienced in working with the IPP. I think it does lend itself to establishing and working with the classroom community especially well. The theme of balancing competing expectations is also one that gets some perspective from looking at the bigger picture and planning with intention using the tool [we developed].*

**Transferability.** Transferability, a term used in qualitative research is “achieved when readers feel as though the story of the research overlaps with their own situation and they intuitively transfer the research to their own action” (Tracy, 2010, p. 845). According to Polit and Beck (2010), “the main work of transferability ... is done by the readers and consumer of research” (p. 1453). The reader of a study needs to determine which findings could be applied to another setting and how. The reader is the one who “transfers” the new knowledge he or she has gained from the study. Polit and Beck (2010) pointed out that transferability was similar to the concept of “proximal similarity” developed by Donald Campbell (1986). “Within the proximal

similarity model, researchers and consumers envision which contexts are more or less like the one in the study" (Polit and Beck, p. 1453). I based the study on a common challenge for teachers in Manitoba, so there is a strong possibility for transference to occur as Manitoba teachers read this thesis.

*An audit trail.* The final method of creating credibility used was the development of an audit trail (Creswell, 2007; Creswell & Miller, 2000). "An audit trail is established by researchers documenting the inquiry process through journaling and memoing, keeping a research log of all activities, developing a data collection chronology, and recording data analysis procedures" (p. 128). I created and kept a research log throughout the study. Along with helping establish credibility, an audit trail promotes the trustworthiness of the study. Creswell and Miller (2000) suggested including the research logs in the appendices of the final study document and making it available to thesis committee members. The research log for this study was available to my thesis advisor upon request.

### **Roles**

A research facilitator should identify all participants' roles at the beginning of a CAR study supporting the collaborative nature of the study (McTaggart, 1994/2006, Reason & Bradbury, 2006). Reason and Bradbury (2006) suggested that one person assumes the role of research facilitator while the other members of the group assume the role of active collaborators. During this study, I assumed the role of research facilitator; the four teachers were the active collaborators. The active collaborators posed questions, raised concerns, helped solve problems, reflected on their practice, reflected on the process, and took part in each phase of the study.

Two PhD committee members, from the faculty of education, assumed the role of research advisors. The research advisors acted as peer reviewers. Throughout my data analysis I

regularly communicated with them via phone, email, or in person. They vetted the emergent themes and asked challenging questions about the methods and interpretation of the themes.

Using research advisors added credibility to the study (Creswell & Miller, 2000).

## **Procedures**

### **Context of the Study**

This study took place in a suburban Kindergarten to Grade 8 School in a school division with 11,000 students served in 34 schools in a large Canadian city. The principal indicated that the community, in which the school was located, was culturally, socio-economically, and academically diverse that was comprised of families from 25 different international groups. The school was built in 1979 as an open area school, a design that was popular in the late 70s and 80s. By 2012, all classrooms in the building were single spaces. During the 2016-2017 school year, there were just over 400 students enrolled.

According to the school principal, the school followed a balanced school day schedule, promoting healthy eating and active living. A balanced school day typically consists of one 55-minute lunch hour and one 30-minute activity break, combining the two traditional 15-minute recesses into one longer break. The school had a free breakfast program, provided a healthy snack once a week, and offered many clubs and after school activities for students to participate in year-round. The school employed 28 teachers, two administrators, 10 educational assistants, and received weekly support from a divisional team consisting of a social worker, psychologist, and speech pathologist. Additionally, the principal shared that the school had a variety of specialty teachers for gym, band, and music. The grade 7 and 8 teachers informed me that the grade 7 and 8 students traveled to a nearby school for technology, arts, and science (TAS) classes

one-half day, each 6-day cycle. During the TAS afternoons, the grade 7 and 8 teachers had time to meet as a team for professional development and planning. Throughout the year, many of these afternoons were designated times devoted to this study for group and individual meetings.

### **Data Collection**

Typical data collection procedures for qualitative research were implemented during this study including interviews, surveys, personal field notes, and teacher observations (McMillan, 2008). The purpose of the teacher observations was to gain a deeper understanding of the pedagogical practices they used, and to serve as the springboard for ongoing discussions about pedagogy. The research questions informed the type of data that was collected. The central research questions are answered through the co-development process of the new IPP. Table 3 portrays the data collected to support the secondary research questions.

Data collection occurred separately during phase two and three. Over 10 months, data was collected through a variety of means: (a) 20 semi-structured and transcribed interviews, (b) 13 transcribed group discussions, (c) 67 teacher observations, (d) one online teacher survey using a free, online, password-protected site [www.surveymonkey.com](http://www.surveymonkey.com)), (e) a running audit trail, and (f) personal field notes. Later in this Chapter further details about the process of data collection are described.

Table 3

*Data Used to Answer the Secondary Research Questions*

Research Question	Data Applicable to Question
1) Did the new IPP impact the planning and instruction of the active collaborators? If so how? If not, why not?	<ul style="list-style-type: none"> <li>• Interview transcripts</li> <li>• Teacher observations</li> <li>• Personal field notes</li> <li>• Group discussion notes</li> </ul>
2) Did following the inclusive pedagogic guiding principles prompt the teachers to approach their classroom differently? If so, how? If not, why?	<ul style="list-style-type: none"> <li>• Interview transcripts pre, and post implementation of planner</li> <li>• Teacher observations</li> <li>• Personal field notes</li> <li>• Groups discussion notes</li> <li>• Teacher survey</li> </ul>
3) Were teachers able to identify if following the guiding principles helped them remove any barriers to learning? If so, how? If not, why not?	<ul style="list-style-type: none"> <li>• Interview transcripts</li> <li>• Teacher observations</li> <li>• Groups discussion notes</li> </ul>

### **Criteria for Active Collaborators**

Borgia and Schuler (1996) identified five key characteristics of action research that described the general criteria for the active collaborators (a) commitment, (b) collaboration, (c) concern, (d) consideration, and (e) change. Primarily the active collaborators needed to commit to the time required for the study before agreeing to participate. It was projected that active collaborators would be involved with the study for an extended period. I asked them to commit to the study for its duration (barring any unforeseen circumstances as they had the freedom to withdraw from the study at any point). There was an expectation that active collaborators participated in the collaborative nature of the study, meaning they agreed to contribute to all aspects of the process. They also needed to be willing to share with, listen to, and, respect the other active collaborators. The characteristic of concern had two meanings (a) concern for each member of the group, and (b) concern for the topic of the study. Closely related to consideration was concern. Concern referred to consideration about the other group members, as well as careful consideration of the information shared, analyzed, and critiqued by the group. Active collaborators were required to demonstrate both concern and consideration throughout the study. The final characteristic change, referred to change or growth in professional practice often anticipated when participating in a CAR study. The teachers, as active collaborators should anticipate, and be open to, change in their pedagogical practice resulting from their participation in the study.

For the active collaborators recruited for this study, specific criterion was established. They needed to be middle-years teachers teaching in a grade 5, 6, 7, or 8, classroom that taught the four core subjects to their students. The teachers were asked to implement an inclusive, integrated, inquiry unit with their classrooms. Previous experience with inquiry was not

necessary. Active collaborators needed to participate in the co-development, implementation, and assessment of a new IPP, to the best of their ability. During the initial information session, I outlined and discussed general and specific criteria with the group.

### **Recruiting Strategies**

After receiving a certificate of approval (Appendix A) from the Education and Nursing Ethics Board (ENREB), I contacted the superintendent of the first school division of choice and sought approval to conduct the study in the division. Once the superintendent approved my study, she emailed the principals of the first four schools on my list indicating I would contact them about this research study. I then extended a verbal invitation over the phone to the principals to establish a meeting time to discuss the possibility of their participation in this study. Once I arranged a meeting time, we met, and I described my study to them. I then requested they email an invitation to their middle-years teachers regarding an information meeting about the study.

At the first information session, four middle-years teachers expressed interest in the study. The principal asked if I would consider conducting the study in that school exclusively. After consultation with my thesis committee, I agreed and contacted the other three principals to thank them for their interest in the study.

**Active collaborators recruited.** As stated, four middle-years teachers, from one school, all teaching Gr 7, and 8 multi-age classrooms were recruited for the study. Consistent with participation criteria, the active collaborators were responsible for teaching the entire curriculum content, except gym, band, technology, arts and sports (TAS), and choir. All four teachers were interested in learning about and implementing a guided inquiry unit with their classes. The group

of four agreed to uphold and support the five general characteristics if CAR suggested by Borgia and Schuler (1996).

In Collaborative Action Research, “the ‘self’ must ... be understood as a situated and located self ... formed through a particular and unique developmental history; ... constructed in a particular cultural-discursive history; .... located in a particular and unique set of social connects and solidarities; and .... within a particular history of material and economic exchanges in the world” (p. 9). Consequently, brief descriptions of the active collaborators and me are included to situate each “self” involved in the study.

### **Description of Research Facilitator and Active Collaborators**

**Research facilitator.** I am a Caucasian woman who was born in England and immigrated to Canada at the age of eight. I attended school in four provinces across Canada and graduated from high school in Manitoba. I immediately entered university and four years later graduated with a Bachelor of Education. I taught in a public school for one year, then entered the field of Early Childhood Education as a Director and remained in that role for 25 years. Next, I was part of a ministry team at a large church in Canada. I returned to a formal University setting in 2006. I completed a Post-Baccalaureate in Inclusive Special Education, then a master’s degree in Inclusive Special Education in 2011 and am now completing a Doctoral degree in Inclusive Education. During 2006, I re-entered the profession of teaching in an early years public school. Since then, I have been a guidance counsellor, learning support teacher, and an instructor at an urban University in their Faculty of Education.

As I read, studied, and wrote about inquiry-based learning (Wheeler & Bell, 2012; Minner, Levy, & Century, 2010; Tosey & McDonnell, 2006; Audet & Jordan, 2005; Barrett, Mac Labhainn & Fallon, 2005; Barrow, 2006), problem-based learning (Hmelo-Silver, 2004;

Batdi, 2014; Barrows, 1986; Thomas, 2000; Gijbels, Dochy, Van den Bossche, & Segers, 2005), experiential learning (Itin, 1999; Dewey, 1938/1997; Kolb & Kolb, 2008) cooperative learning (Johnson & Johnson, 1999, 2009; Cohen, Brody & Sapon-Shevin, 2004; Cohen, 1994; Putnam, 1998; McMaster & Fuchs, 2002; Putnam, Markovchick, Johnson & Johnson, 1996; Jenkins, Antil, Wayne & Vadasy, 2003), and place-based learning (Sobel, 2006; Clark, 2008; Smith, 2007; Edwards, Gandini & Forman, 1993), I recognized many common characteristics. I wondered if there was a way to integrate the major tenets and streamline them into one overall practice for use in an inclusive classroom.

My experience with the quantity of curricular outcomes as I returned to teaching in 2006, and that of many of my colleagues, was exasperation. I co-taught in a bilingual language-heritage program. I taught the core curriculum subjects, in English, in the afternoons, the shorter part of the day. Time allocated for gym, music, and dance, further shortened my contact time with my students. One day out of every six-day cycle, I spent only 30 minutes with my students. I solved the problem, or so I thought, by working through the curriculum very quickly. However, one afternoon several of the students were in tears because of the rapid pace and I realized something had to change.

With encouragement from the principal, I decided to adopt a project-based, inquiry-based approach to the curriculum. I did two inquiry projects with my own class and collaborated with another teacher for an additional inquiry project. The first project my class embarked on was building a mall. One of my students inspired this idea. Throughout the process, we learned about planning, accessibility, perspective, money, advertising, math, and cooperation. We covered thirty specific learning outcomes from the math curriculum during this one project.

The second project we undertook was adopting a Right Whale named Slash. We were studying animals. The students were intrigued with endangered species and wondered if they could have an impact on the lives of an endangered species. I found a few different projects and encouraged them to choose one. The students decided to adopt a Right Whale named Slash. They learned about Right Whales. They discovered information about the diet of Right Whales, their migration patterns, a typical life cycle of the whale, and how they became endangered. For several years, we received updates on Slash that I shared with the students, until two years ago when we were informed that Slash died.

The afternoons that I coordinated with my teaching partner's class, we explored China and the Olympics, as the summer Olympics that year were in China. The students worked in cooperative groups and chose to investigate sports, pandas, Chinese cuisine, and flags and, of course the Olympics. My experience with inquiry to that point had been teacher-led inquiries. The final inquiry-project of the year was student-led. They selected topics of interest that ranged from pop artist Flo Rida to hockey. Being familiar with an inquiry process, the students led their inquiry projects and demonstrated their knowledge with a presentation to their peers. The presentations were as varied as the topics, from a rap song to a poster.

I share these stories to introduce how, and why I became interested in an inquiry learning in the inclusive classroom. The positive experiences I had with Inquiry-Based learning, and a subsequent study we undertook as a school staff about the Reggio Emilia approach, inspired the study I completed for my master's degree. My thesis explored the connection between Differentiated Instruction and Inquiry-Based Learning (IBL). I argued that teachers who used IBL as an instructional strategy in the classroom were innately differentiating. I demonstrated that IBL could be an inclusive pedagogical practice. I had many unanswered questions at the end

of my master's study. Those questions led to the development of the key Inquiry questions that guided this study presented in Chapter One.

I consider myself an inclusive person and educator as well as an advocate for inclusion. The individuals who have influenced my thinking about education and inclusion also influenced my bias, values, and interests as I began this research study. Two individuals who have had a personal influence on my ideas about education and inclusion are my children, who live with special needs. I have experienced the education system from the perspective of a parent and as an educator. Both perspectives have challenged and shaped my thoughts about education, inclusion, and advocacy.

The pragmatism of John Dewey, the socio-cultural approach of Lev Vygotsky, and the work of Loris Malaguzzi have all influenced my thoughts about education. I have adopted a sociocultural view of learning and "reject the possibility of separating learning from its social and cultural contexts" (Cochran-Smith & Dudley-Marling, 2012, p. 239). Therefore, as a researcher, my current research questions are best answered through qualitative methods as qualitative research "assumes that human behaviour is significantly influenced by the setting in which it occurs, and whenever possible, [takes place] in that location" (Bogdan & Biklen, 2007, p. 5).

I embrace a feminist perspective, so I adopted a research design that aligned with that perspective. Research undertaken with a feminist stance typically adopts a post-positivist view and abandons the notion of a hierarchical relationship between researcher and collaborators. By adopting a collaborative action research methodology as the researcher, I made the "assumptions that practitioners are knowers, learners, and generators of knowledge, rather than simply objects" (Cochran-Smith & Dudley-Marling, 2012, p. 242) to be studied. Teachers know their students

and what works in their classroom best (Richardson, 1994). Therefore, engaging the teacher collaborators through dialogue, and listening to their perspectives, was key to defusing the notion of a hierarchy. Gordon (2008) suggested that, “collaborative action research, when it works as intended, can empower educators, transform cultures, and most importantly, dramatically improve student learning” (p. 1).

**Active collaborators.** The active collaborators chose pseudonyms for the study. Though small in number, as a group they were diverse. Their diversity added richness to this study. Throughout the remainder of this text, all verbatim quotes of the active collaborators are italicized and indented for ease of reading, as suggested by Corden and Sainsbury (2006).

**Teacher Blue.** Teacher Blue indicated he was in his 4<sup>th</sup> year of teaching. He described himself as tenacious, passionate and driven. He indicated that he loves soccer, movies, and his family and believes that everyone has the potential to do great things. He hopes his students give their best effort, remain optimistic, and grow as learners. His favourite quote is: “*There is no such thing as luck. There is preparation for opportunity.*”

Teacher Blue taught middle-years students (in grades 6 and 7) for four years and was teaching a multi-age class of Grade 7 and 8 students at the time of the study. Teacher Blue described his class as “*relatively homogenous,*” and although a Learning Support Teacher was assigned to his classroom, he indicated he did not require much support. There were no educational assistants (EA) assigned to Teacher Blue’s room.

Prior to becoming a teacher, Teacher Blue was an EA who provided support to students from Kindergarten to nine for three years. Teacher Blue disclosed he “*never wanted to be a teacher and never planned on teaching.*” He viewed his job as an EA as just that, a job, a means of paying for his university studies as he planned to pursue medical school. He graduated with

two bachelor's degrees before his acceptance into medical school. Teacher Blue's path soon changed as he did not enter medical school. After much soul searching, he decided to apply to the Faculty of Education and was accepted and graduated with his Bachelor of Education.

Teacher Blue is currently pursuing a master's Degree in education.

Teacher Blue credits his time as an educational assistant as contributing to his interest in inquiry-based learning. He reported that he previously worked with a teacher who successfully used inquiry-based learning strategies for differentiating instruction. Teacher Blue also denoted that he learned about inquiry-based learning during his undergraduate studies with one particular professor. He expressed his interest in inquiry learning and gaining more experience using it as an instructional strategy.

Teacher Blue described the experience he had with cross-curricular teaching and found that social studies and English language arts (ELA) worked well together, as did math and science. He expressed some frustration with cross-curricular teaching, as he felt he needed to prepare assessments separately. He mentioned that the report card format currently in use in Manitoba had no place for cross-curricular or integrated marks.

Teacher Blue said he was very familiar with curriculum documents for the four core subject areas. He used the Manitoba Education and Training website several times a week. Teacher Blue noted that he liked the curriculum documents with quick reference charts, and he looked at and used the blackline masters often, as they were predictable. Teacher Blue said he was most passionate about math and felt that the ELA document was so general that the outcomes could fit into pretty well anything else he was teaching. He focused on the learning outcomes of math, science, and social studies. He noted that the Grade 7 and 8 curriculum documents were very similar. He chose to focus on Grade 8 math "*because at least that way we*

*know we have everyone being prepared for Grade 9, and the Grade 7s will have two years to do it.*" Teacher Blue fully anticipated having his Grade 7s back with him the following school year for Grade 8. He explained that for social studies and science, the curriculum is set up in clusters, so he tries to cover the clusters over the two years he spends with a group of students.

Teacher Blue considered all students as capable and tried hard to help everyone feel successful in his class. He said, *"I do know giving students a shot at being successful is the most important thing, because if they're not [successful] they are not going to be engaged, and you have lost them. It is important to send them to high school feeling successful."* Teacher Blue felt that one of his strengths was *"getting students engaged in the classroom."* He said he used a lot of cooperative learning in the classroom and considered his class as a family.

Teacher Blue talked about his background in a private school where the rules were rigid, and teachers were *"strict."* He reflected on how he sometimes defaults to the same tough approach but needed to remind himself *"that sometimes school is the last thing on a student's mind."* Nonetheless, he thought it was possible to have high expectations of all his students; he just needed to keep in mind what support students might need to succeed. He challenged himself to see the bigger picture for each of his students and what *"life for them outside the classroom could be."*

Teacher Blue reflected that teaching at the right level for Grade 7/8 students and determining what is and is not age appropriate could be a challenge. He indicated he was open to discussing any topic raised in class but has to remind himself that sometimes students in middle-years need to *"still be innocent and not made aware of everything."* Sometimes Teacher Blue felt that was a hard line to draw. Teacher Blue identified that he had a positive relationship with his students which he felt influenced the amount and type of work the class were willing to do.

One of the reasons Teacher Blue was interested in this study was to learn about the process. He said he had read about research and was taking the thesis route for his Masters, so he was looking forward to seeing the process in real life and participating in a research study from beginning to end. He was least looking forward to the journaling. He said he would prefer to meet and have a discussion with me than write his ideas and thoughts in a journal.

**Teacher Green.** Teacher Green described himself as friendly, thoughtful, caring, and creative. He loved winter, cycling, and music. Teacher Green believed all students were important and wanted to belong and hoped they were proud to be who they were. His favourite quote was “*do your best and enjoy every step.*”

This year was Teacher Green’s first year as a professional teacher. Teacher Green described his class as “*pretty homogenous.*” There was no educational assistant in his class. Teacher Green said, there was a designated learning support teacher for his class, but he had not met her at the time of the interview (October 2015). He indicated he was hoping to do some co-teaching with the learning support teacher at some point during the term.

Teacher Green's prior practicum experience had been in Grades 7, 8, 9, and Grade 3/4. He noted that he found a big difference between Grade 8s and 9s. He felt that Grade 9s “*seem interested in the world and want to get out there and check it out,*” while Grade 7s and 8s “*are really drawn into their own world.*”

Teacher Green entered teaching as a second profession. He had a Master of Arts in Aboriginal Studies and worked as a researcher conducting historical archival research. Teacher Green had very minimal experience with inquiry-based learning, which is one of the reasons he was interested in joining the study, he hoped to learn more about inquiry-based learning.

Teacher Green said he was quite familiar with the math curriculum, was familiar with the overarching themes in science and social studies and had not pursued gaining a copy of the ELA document. Teacher Green's only exposure to the ELA document was in university when someone from the Department of Education came to his class and walked the students through how to use it. Teacher Green communicated that for the year ahead he was focusing

*... on the classroom as a whole and the classroom climate, building the community of the classroom. I try to support self-esteem and social-emotional needs. It seems important at this age that students are encouraged to explore themselves and find out what their interests are.*

Teacher Green reported that he did use the MET website, and he especially liked the blackline masters as they were readily available. He read the MET statement on inclusion and was familiar with the *Success for All Learners* document. He mentioned a cooperating teacher who in his words “*was outstanding at differentiating her lessons*” and using Universal Design for Learning. Teacher Green reflected on what a positive role model this teacher had been for him.

Teacher Green identified some challenges he was facing early in the year, such as:

*... gaining [the students'] attention. I want them to be more engaged for sustained periods for them to be more self-motivated, and I haven't figured out how to do that yet - and to spark that always. I want them to be coming in, asking questions, and wanting to work more on their project. Even just empowering them with the idea that if you want to know something you can just go and find out. However, I am reluctant to turn them loose because I am worried about it being too chaotic.*

Teacher Green expressed some concerns about being part of the study. “*Right now, I feel full up, and adding on something is worrying. What if it is really time-consuming?*” He also felt

that working as part of the team of collaborators and getting other perspectives would be helpful. He was concerned about “*doing something that is kind of like inquiry and doing it a different way*” and possibly “*ruining*” my data. I assured him that whatever way he used inquiry-based learning was okay. I provided the Guided Inquiry book as a model for everyone to consider and as a support for those teachers who had no experiences with inquiry-based learning.

**Teacher Red.** Teacher Red earned her Bachelor of Education in a foreign country where she started her teaching career. She taught for three years, teaching Grade 6 English and Grades 8 and 12 economics. When she arrived in Canada, her credentials did not allow her to teach, so she completed an after-degree program in Education and a teaching English as a second language (TESL) certificate. She spent time as an educational assistant, then went on to substitute teach, prior to being hired to teach at her present school. Teacher Red had been there since 2012. Including her prior experience, she was in her 7<sup>th</sup> year of teaching.

Teacher Red described herself as honest, helpful, a good cook, and a loving mom. She enjoyed dancing and led several cultural dance troupes in the school that performed during school assemblies, and at events within the school division. She spent lots of time planning and preparing for her class and felt comfortable in her role as a teacher. She said she was not a rigid person, and if the students wanted to switch something around in their daily schedule, she often accommodated their request. Since they have the majority of the day together, Teacher Red indicated “*some days we make the schedule together.*” Her favourite quote was, “*the woods are lovely, dark and deep, but I have miles to go before I sleep.*”

Teacher Red had not heard of inquiry-based learning in India; she was introduced to it in Canada. Her previous principal co-planned an inquiry unit with her when she was teaching Grade 5, but she had not used an inquiry-based approach in her grade 7/8 classroom. However,

she had experience with integrating various curricular outcomes into one research project for her students.

Teacher Red mentioned that during the previous year she used only the Grade 8 curriculum as the teacher before her had used only the Grade 7 curriculum and she did not want to repeat things. As she looped with six of her students this year, she decided to combine curricular outcomes from both grades. Teacher Red reported that she used the MET website for the blackline masters. She said she also looked at the curriculum documents and followed them most of the time. She found the math and science blackline masters the most helpful. Teacher Red explained she had a book on differentiation but did not know much about it. She had an assigned learning support teacher, but at the time of the initial interview (October), they had not met. She indicated the plan was to do some co-teaching that year with the learning support teacher.

Teacher Red expressed a challenge for her was saying words in the “*Canadian way*,” as she learned British English. She said this caused her to pre-read anything she was going to read aloud, so she pronounced words correctly, something she was cognizant of because of the number of English language learners in the class. Teacher Red wanted to ensure they were learning Canadian English. She indicated this took more preparation time as she was constantly thinking about her use of the English language. Teacher Red explained one of the strategies she used herself was to write something in her language (Punjabi), to help with comprehension of something new, then translated it into English.

One thing that appealed to Teacher Red about joining the study was learning more about inquiry-based learning. She wanted her students to “*feel more independent and free to ask questions instead of being passive learners.*” One of her concerns was the journaling aspect of it.

Teacher Red said she preferred to have a discussion with me rather than write things down. She was also concerned about the time commitment as she was committed to teaching dance and to spending time with her family and being what she called a “*good East Indian wife.*”

**Teacher Purple.** Teacher Purple described herself as kind, helpful, hardworking, and awkward. She was “*obsessed*” with using the laminator, about which the other teachers teased her. Her goal was to travel the world, acquire two cats, and learn how to play the guitar. Her favourite quote was “*people don't care how much you know until they know how much you care.*”

Teacher Purple's practicum experiences included Grades 3, 6, 7, and 8. Throughout her practicum and education, Teacher Purple had very limited experience with inquiry-based learning; learning about inquiry attracted her to this study. Typically, Teacher Purple accessed the curriculum documents online, except the ELA document, which as previously mentioned was not available online. The ELA curriculum was one that Teacher Purple did not “*necessarily like,*” so she focused on her student's interest when teaching ELA. She indicated that after talking to other teachers about the ELA document, “*the general consensus is that the document is useless anyway.*” She said it did not provide a simple chart with the themes like the other core subject materials. As far as the rest of the resources available on the MET website, Teacher Purple explained she had not looked at any of them and was unsure what was even on there.

Teacher Purple reported that her level of familiarity with the Grade 7/8 curriculum documents was limited. When she started the year, she was unsure what her students had acquired the prior year, so she posted all the Global Learning Outcomes (GLOs) on the wall around the classroom and asked the students to highlight the ones they had covered the previous year. Having student input helped her determine which GLOs to cover that year. Teacher Purple

reported that she first looked at the GLOs, determined which are the most exciting to learn about, then considered her students' interests when choosing what to teach.

Teacher Purple acknowledged that her experience with inclusion was limited. She explained that at her previous school "*inclusion wasn't a thing.*" She told me that all the students with disabilities were in one room, and the learning support teacher removed students from her class who were "*lower academically*" or "*learning English.*" The learning support teacher did not inform teacher Purple about what the students were doing when they left from the classroom. Understandably, she did not feel part of their program. In her current classroom, Teacher Purple was working with the learning support teacher to "*try to figure out the best way*" to meet all the academic and social needs in her classroom.

Teacher Purple identified spending the majority of the day with her students as something she enjoyed. She said compared to her previous experience, which was "*a nightmare*" as a first-year teacher, she felt more positive about being at this school and in this environment. She described her students as "*so sweet*" and expressed she was connecting well with them. A couple of her ongoing professional goals were to (a) improve her assessment skills because report cards still scared her, and (b) make learning more meaningful to her students' lives.

Teacher Purple identified her interest in learning about inquiry as something that appealed to her about joining the study. "*I would love to learn more about inquiry, like the approach to it, how to do it and to get kids excited about it.*" She was also concerned about the time commitment: "*As a new teacher it already seems like a lot to teach all the subjects, so I feel like it might be more work or extra work. I still feel very unorganized right now. I am usually very organized, and I'm hoping that I will have a good idea of what I'm going to be doing by January.*"

## **Process**

The research process for this study is best presented in two sections. The first section covers the fieldwork methods and procedures, while the second section encompasses all aspects of the co-development of the new IPP. The study had three distinct phases, (a) pre-research - phase one, (b) teaching block one - phase two, and (c) teaching block two - phase three.

## **Fieldwork Methods and Procedures**

**Phases of the study.** Table 4 delineates when activities occurred, and what data was collected during each phase. Only the dates of events that occurred are noted. Numerous events were rescheduled due to changes in the teachers' schedules, illness, and miscommunication or in some instances the teachers felt overwhelmed and requested a reprieve from a scheduled meeting.

***Phase 1: September to December.*** In September, I met with the school division Superintendent to gain permission to conduct this study in ABC school division (a pseudonym). During the meeting, we discussed the overall purpose of the study, the consent forms, as well as the teacher interview and survey questions. I received approval to commence with the study and followed the recruiting strategies previously outlined.

A pre-research session took place in October that lasted 2.5 hours. The purpose of the pre-research session was to finalize details about the study, such as the schedule for meetings, data collection, journal writing, and to begin a preliminary discussion about the co-development of a new IPP. During the first hour we spent time in casual conversation as a way to build relationships then I gave journals to each teacher and highlighted the journal prompts included at the front of the journal.

Table 4

*Research Study Phases*

<b>Project Phase</b>	<b>Activities and Data Collection</b>
<b>Phase 1 September to December</b>	<ul style="list-style-type: none"> <li>• Met school principal who signed consent form (Sept. 16)</li> <li>• Recruited 4 active collaborators (Sept. 23)</li> <li>• Active collaborators signed consent forms (Sept. 30)</li> <li>• First one-on-one teacher interviews recorded and transcribed (Oct. 2, 9, 15)</li> <li>• Pre-research session (Oct. 20)</li> <li>• Group meetings (Oct. 28, Nov. 16, 24)</li> <li>• Full day meeting (Dec. 2)</li> </ul>
<b>Phase 2 January to March</b>	<ul style="list-style-type: none"> <li>• Group meetings (Jan 11, 19, 27, Feb. 4, 23, Mar. 9)</li> <li>• Individual meetings recorded and transcribed (Jan. 12, 13, 18, Mar. 23)</li> <li>• Teacher observations (Jan 19, 20, 21, 22, 26, 27, 28, 29, Feb. 2, 3, 4, 9, 12, 17, 18, 23, 25, Mar. 1, 3)</li> <li>• Online survey completed by teachers (By March 31)</li> </ul>
<b>Phase 3 April to June</b>	<ul style="list-style-type: none"> <li>• Group meetings (April 5)</li> <li>• Individual meetings recorded and transcribed (April 12, May 6, June 21)</li> <li>• Teacher observations (April 21, 27, 28, 29, May 4, 6, 9, 10, 12, 13, 19, 24, 26, 27, June 2, 13, 14, 15)</li> </ul>

I also provided each teacher with a copy of *Guided inquiry design: A framework for inquiry in your school* (Kuhlthau, Maniotes, & Caspari, 2012). I gave the teachers the code to access the first teacher online survey survey and we agreed on a completion date for the survey.

During the first hour of the pre-research session, the teachers raised two concerns. The first concern was regarding the journals and the second was about the timeline of the study. I requested the teachers keep a reflective journal of the research process to facilitate reflection and discussion about the processes over the course of the study. I asked the teachers to make a weekly entry in their journals. The teachers expressed their apprehension about the time required to complete the journal entries. Initially, I asked teachers to start making a short daily entry in their journal about their teaching practice. The teachers initially agreed to try writing in the journals, by our group meeting in November.

Two of the teachers (Green and Purple) were already journaling with the principal, and the other two teachers (Red and Green) had another journal they documented in, so they did not want to duplicate their reflections and ideas in two written journals. They used the journals I gave them for ongoing reflection and note taking about the class. Understandably they did not want to lose this information so asked if they could keep the journals. A couple of the teachers also planned to use the journal as a reference for writing their reflection of professional learning (ARPL) at the end of the year.

I thought the journals could be a relevant source of data that may have contributed to answering the main research questions. The journals were offered as an opportunity for the teachers to share their presentational and propositional knowledge with me. Consequently, I asked the teachers if they were willing to try using the journals in January and re-evaluate its use at that point. The teachers agreed. An example of one of many democratic decisions we made

throughout the study.

During the pre-research session, the teachers collectively expressed unease with the original timeline. The original plan was to co-develop the new IPP during October and November, learn about Guided Inquiry, and for me to begin the first block of teacher observations. The teachers wondered if they could manage the day-to-day rigor of teaching, co-developing a new IPP, learning about guided inquiry, and be ready to implement the new IPP in January. I listened to the teacher's concerns and realized the original timeline was ambitious. We agreed to adjust the timeline and spend the months of October through December focused primarily on the co-development of the IPP. The change in the timeline was an important step in establishing a positive working relationship with the teachers. I listened to their concerns, and we democratically decided on a satisfactory solution. Phase two and three were re-scheduled to begin in January and April respectively.

In alignment with a naturalistic inquiry, I conducted open-ended interviews with each teacher during the first week of October. Each interview lasted 60-90 minutes. I gave the interview questions to the teachers in advance. I recorded and transcribed the interviews then returned the transcription to the interviewees for member checking. The interviews engaged the teachers' experiential, presentational, and propositional knowledge as they described their professional background, thoughts about inclusion, and their teaching experiences. The interviews were the beginning of relationship building and developing trust with the teachers as we engaged in meaningful dialogue.

In mid-November, I discovered that Teacher Blue and Teacher Purple had teacher candidates (pre-service teachers in university programs completing a practicum). Meeting the teacher candidates was a surprise as nobody had mentioned them at any of our prior meetings.

After a brief discussion about the teacher candidates' forthcoming practicum (the last two weeks of March and first three weeks of April), I realized that changes to the research timeline were once again necessary to accommodate the teacher candidate schedules. The teachers told me that during their final practicum block, teacher candidates were responsible for 75% of the instructional teaching time in the class. This meant I could not observe the active collaborators during that time. Therefore, we established a new timeline moving the commencement of the final phase of the study to the third week of April, a change that created some challenges and roadblocks to the implementation of the new IPP, which are addressed in Chapter Four.

*Phase 2: January to March 2016.* During phase two, one-on-one meetings with the teachers and I took place in January and again in March. The purpose of the January meetings was to allow the teachers time to describe their goals and plans for the term. The March meetings provided the opportunity for the teachers to reflect on the successes and challenges they experienced during the January term. Each of these meetings lasted 45-60 minutes. I recorded each meeting and subsequently transcribed the recording. The first meeting engaged the teachers' presentational knowledge as they described their teaching plans for the term. The teachers activated their practical and experiential knowledge as they actively engaged with their students during the implementation of their plans. The second meeting encouraged the expression of presentational knowledge, new experiential knowledge and propositional knowledge as the teachers reflected about the school term and talked about changes they planned for the final phase of the study.

Teachers completed the first anonymous online survey (using [surveyplanet.com](http://surveyplanet.com)) during this phase. The teacher survey had fifteen questions. All four teachers logged into the survey but did not answer all the questions. Eight of the questions had three responses, six questions had

two responses and one question had only one response. One teacher expressed the survey was quite time-consuming, a point all four teachers raised when the second survey was to be completed.

I began the first set of teacher observations on January 19. I conducted 32 teacher observations (eight with each teacher) during this phase. Each lasted 60-120 minutes. During phase two, the group meetings became more challenging to schedule and took place more sporadically. The teachers explained that they all had commitments within the school beyond their regular classroom teaching that allowed less time for our group meetings. However, as already described I was able to meet one-on-one with each of them during this phase.

***Phase 3: April to June.*** Phase three began April 5<sup>th</sup> with a 90-minute group meeting aimed at reconnecting with the teachers after our six-week break (five weeks of teacher candidates and one week of spring break). The meeting time was used to establish pre-and post phase 3 meeting dates, and to conduct a critical analysis of the IPP prior to its implementation (discussed later in the chapter). On April 12<sup>th</sup>, I met individually with all four teachers to gather information about the guided inquiry plans (the instructional strategy used for implementing the new IPP). On June 21<sup>st</sup>, at the end of the guided inquiry unit, I met individually with three teachers. Each of the meetings on April 12<sup>th</sup> and June 21<sup>st</sup> lasted 45-60 minutes. Unfortunately, Teacher Red was on sick leave the last two weeks of June so I was unable to conduct the final interview and attain feedback about the new IPP or Teacher Red's experience with guided inquiry. I sent Teacher Red an email requesting feedback but received no further correspondence from her.

During phase three, I focused the teacher observations on the times of day when the teachers implemented the IPP during their guided inquiry lessons. I conducted 31 teacher

observations, 45-90 minutes in length. I interviewed each teacher twice, before and after the implementation of the new IPP. The plan was for the teachers to complete a final online survey. However, as already highlighted, there was a collective resistance to completing the second online survey. The teachers indicated the time required took to complete it was a challenge since they were very busy with field trips, sports events, and final report cards. They asked if we could include the survey questions with the final interviews. To respectfully, and democratically address these concerns and encourage opportunities for feedback, I integrated the survey questions into the final face-to-face interview.

During phase three, the majority of my time was focused on teacher observations during guided inquiry lessons, and meeting with teachers individually. Teacher Blue started his inquiry unit as scheduled the last week in April. The other three teachers started their guided inquiry units a few weeks later (by the middle of May) than originally planned. Phase three concluded June 21<sup>st</sup> my final day in the school. The next stage in the study was data analysis.

### **Data Analysis**

To facilitate the data analysis process, I used a software program called Nvivo 2. A software program like Nvivo aids the researcher in storing and coding qualitative data. While typical data analysis enlists a form of constant comparison analysis, Nvivo can conduct advanced types of analysis through queries. To identify key words and phrases, to conduct word counts, and to compare and contrast nodes or themes a feature called queries is used (Leech & Onwuegbuzie, 2011).

The initial process used to analyze the data was drawn from the recommendation of McMillan (2008), Bogdan and Biklen, (2007), and Baumfield, Hall, and Wall (2008). I organized the data into two broad categories: a) emic, which included data gathered from the

active collaborators in their words, (interviews, discussions, group meetings, online surveys) and b) etic, my representation of the data (teacher observations and personal field notes). As I began reading, re-reading, and listening to the data, I began looking for concurrent emergent themes. I kept a well-detailed analysis log, recorded any “hunches” I had about themes and was careful not to have a preconceived notion of what the data would reveal. I followed Bogdan and Biklen’s (2007) suggestions as I created the initial codes as I looked for data related to (a) setting and/or context, (b) definition of the situation, (c) perspectives held by active collaborators, (d) ways they thought, (e) successes, (f) challenges, (g) pedagogic strategies, (h) and individual teacher narratives. I started with 75 codes then using a constant comparative method amalgamated them into 28, then 12 central codes. I spent time reading and reflecting on these 12 codes, looking for any commonalities and eventually documented three central themes that emerged (a) pedagogic change, (b) community, and (c) technology. Chapter Five presents the emergent themes and subthemes in detail.

Chapter Four is a presentation of the co-development, implementation, and assessment of the new Inclusive Pedagogical Planner. This was a pragmatic choice to separate the process of co-developing the IPP from the research process even though both processes occurred simultaneously. For clarity and ease of understanding I present the narratives and ideas from each process separately.

## Chapter Four

### The Co-Development of a New Inclusive Pedagogical Planner

This Chapter begins by outlining the co-development process for the new IPP, followed by a description of the implementation phase, teachers' assessments of the IPP and suggestions for future development of the IPP. The teachers and I collaboratively developed the initial drafts of the IPP between October and December. This entire chapter also presents the response to the inquiry question, what form should the new IPP take.

The co-development of the IPP was the most collaborative phase of the study, as the active collaborators and I worked on all aspects of the development of the IPP together. With the aid of PowerPoint slides, I outlined boundaries and limitations to the project by describing how I identified the problem for my study, presented the goals of existing pedagogical planners, explained how I developed the initial set of guiding principles for inclusion, and shared the key ideas I extracted from the MET documents. I defined non-negotiable components of the new IPP as (a) the eight basic functions of the original pedagogical planner (as presented in Chapter 2) had to be included or represented in the final IPP as they formed the beginning framework for the new planner, (b) a set of guiding principles of inclusion were necessary as the new IPP aimed to guide teachers towards an inclusive pedagogy, and (c) as explained in Chapter Two, guided inquiry was the instructional strategy designated for the implementation phase of the new IPP.

I introduced the original four big ideas and the revised set of ideas (see Chapter Two) and asked the teachers to read the big ideas and reflect on them. Following time for personal reflection a discussion commenced. The first suggestion made by the teachers was to include the actual subject areas. *"We should include math, social studies, science, ELA, and the arts somewhere."* *"I agree and what about healthy lifestyles, personal management skills, and*

*learning behaviours?”* These suggestions were followed with, *“aren’t ways of working really instructional strategies?”* and, *“out of the box thinking is referring to the design process.”*

Additionally, a question arose about the identification of ways of thinking that seemed like standalone skills sets. *“I think we need to reinforce the concepts of integration with other subject areas.”*

The discussion proceeded, and it became evident that the four big ideas did not resonate with the teachers. The teachers expressed that starting the planning process with “big ideas” was not very practical. They said that they were looking for something that was more *“useful and helpful.”* The focus of the discussion quickly moved to the practicality of the new IPP.

As highlighted in the two previous Chapters, an important feature of CAR is ensuring that all voices contribute meaningfully to the study (Fullan, 2006; Winzer, 2007). Therefore, in my role as research facilitator, I needed to be cognizant and respectful of the ideas expressed by the active collaborators. As they expressed a lack of interest in the big ideas I decided this was an excellent opportunity to recognize them as the experts and let them take the lead in the discussion.

This was a good reminder that the teachers focus was on the immediacy of day-to-day planning. Even though the big ideas were of interest to me, at this stage they were not of interest to the teachers, something I needed to respect. The teachers wanted to discuss what the new IPP should entail that would meet their requirements of being both *“useful and helpful.”* The teachers made suggestions and discussed ideas for tools like a checklist, a matrix, and a systematic guide. We also discussed other ideas like a recipe box, a poster, and a poster with drop down sections. Initially, the teachers were adamant that the IPP should not be a binder, or as Teacher Purple expressed *“not another binder that would gather dust on the shelf.”* Despite this

initial recommendation, it was interesting that in the end, we agreed to use a binder for the new Pedagogical Planner, because binders were readily available, and we envisioned a way of colour coding tabs within the binder to correspond with a poster.

The iterative nature of CAR involving dialogue, questions, and reflection (Bell, Urhahne, Schanze, & Ploetzner, 2010; Pine, 2009; Reason & Bradbury, 2008) began during the pre-research session and continued for the duration of the study. For example, after a period of discussion, we agreed it would be helpful to have a set of guiding reflective questions to think about before our next meeting. The following questions were composed:

1. What did we mean by practical?
2. What could we develop that other teachers would want to use?
3. How could we create something that was simple and effective?
4. What form should the IPP take?
5. How could we add new sections and ideas to the IPP?
6. How could we connect sections of the IPP together? (e.g., If you use *this*, it lines up well with *this*.)
7. How could we tie the IPP to the practicalities of completing the report card?

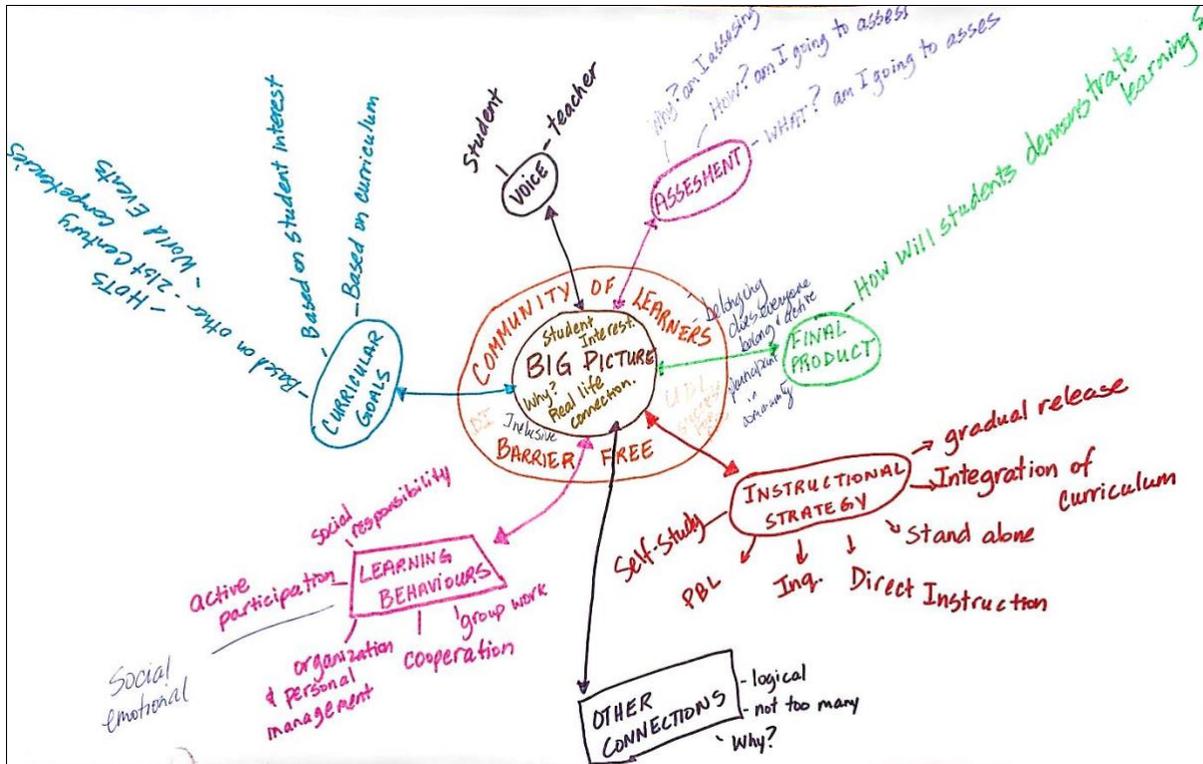
The next group meeting was at the end of October. The purpose of the meeting was to engage in discussion about the practical questions posed and build knowledge about the guided inquiry model. At 1:40 as the meeting began only two teachers were present – Teacher Purple and Teacher Blue. Teacher Red joined us at 2:45 and Teacher Green at 3:00. The meeting began with a PowerPoint presentation and discussion (led by me) on the eight stages of guided inquiry.

At 2:45 when Teacher Red arrived the focus shifted to the reflection questions we agreed to think about. The discussion led to the identification of five key factors in planning: a good

rationale for teaching particular outcomes, assessment tied to the practicalities of the report cards, instructional strategies, the final product, and a real-life connection. As the dialogue about planning continued, the teachers suggested the starting point of planning was “*establishing the big picture. We need to know what students are interested in, why they should be interested in what we are teaching, and then establish connecting points with curricular content.*”

This informative discussion led to an additional discussion about the format of the new IPP. In terms of the format teacher purple suggested we considered a poster, an idea that caught the interest of all four teachers. Everyone agreed that a poster was a practical and meaningful suggestion. At that point, we decided that after each meeting, I would try to summarize the discussion from the previous meeting in a graphic form similar to the concept maps used in the original design of the pedagogical planners, to help maintain meeting focus and facilitate revisions (when needed). Graphic representation assisted examination of the different planning components, their relationship to each other, and facilitated discussion about related and central concepts such as inclusion. As stated in Chapter Two, these graphics became the first steps in conceptualizing the key components of the new IPP. The following figures are photographs of the first four iterations of the graphics created (see *Figure 2; Figure 3; Figure 4; Figure 5*). Each figure and subsequent text illustrate and describe the changes that took place during the co-development of the IPP.

Figure 2. First Graphic of the IPP

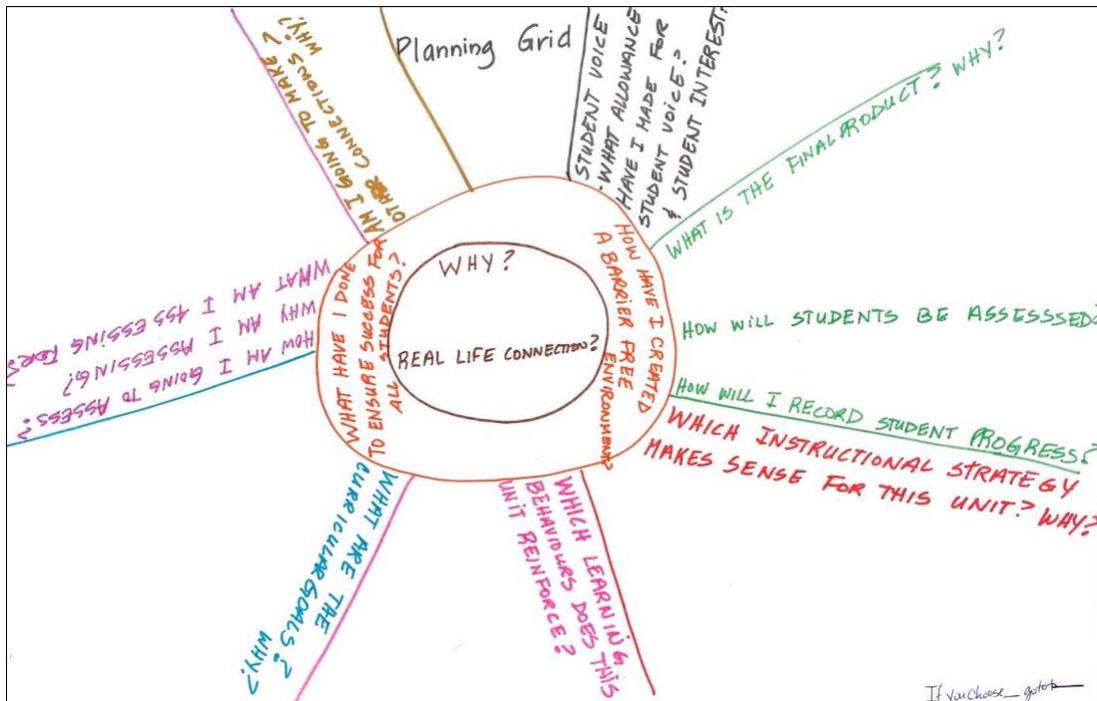


The initial graphic began as a concept map reflecting the ideas expressed about the planning process including learning behaviours, curricular goals, voice, assessment, the final product, instructional strategy, and other connections. The original poster consisted of the two central circles labeled "big picture" and "community of learners," and the seven smaller shapes labeled as depicted in the figure. As the goal of the study was to integrate inclusion within the planning process, I initially drew it on the poster as a ring around the Big Picture to provoke the conversation about the integral role of inclusion during the next group meeting. Throughout the group meeting, we added the next level to the mind map – the arrows and words extending from the seven-labeled shapes. The teachers added two concepts to the central ring, student interest

and real-life connection, and a question “why?” The question “why” reflected the previous discussion about why students should be interested in what was being taught.

Furthermore, community of learners, barrier free, UDL, and DI were added to the ring representing inclusion, ideas drawn from the guiding principles of inclusion. The teachers and I agreed this initial mind map looked cluttered. It captured the different ideas and concepts brainstormed during the discussion, but beyond that, we could not see a practical use for the mind map moving forward. The discussion ended with a suggestion that we add a question to each section of the planning process. We discussed possibilities for additional questions that were added to the next iteration of the graphic representation (*Figure 3*).

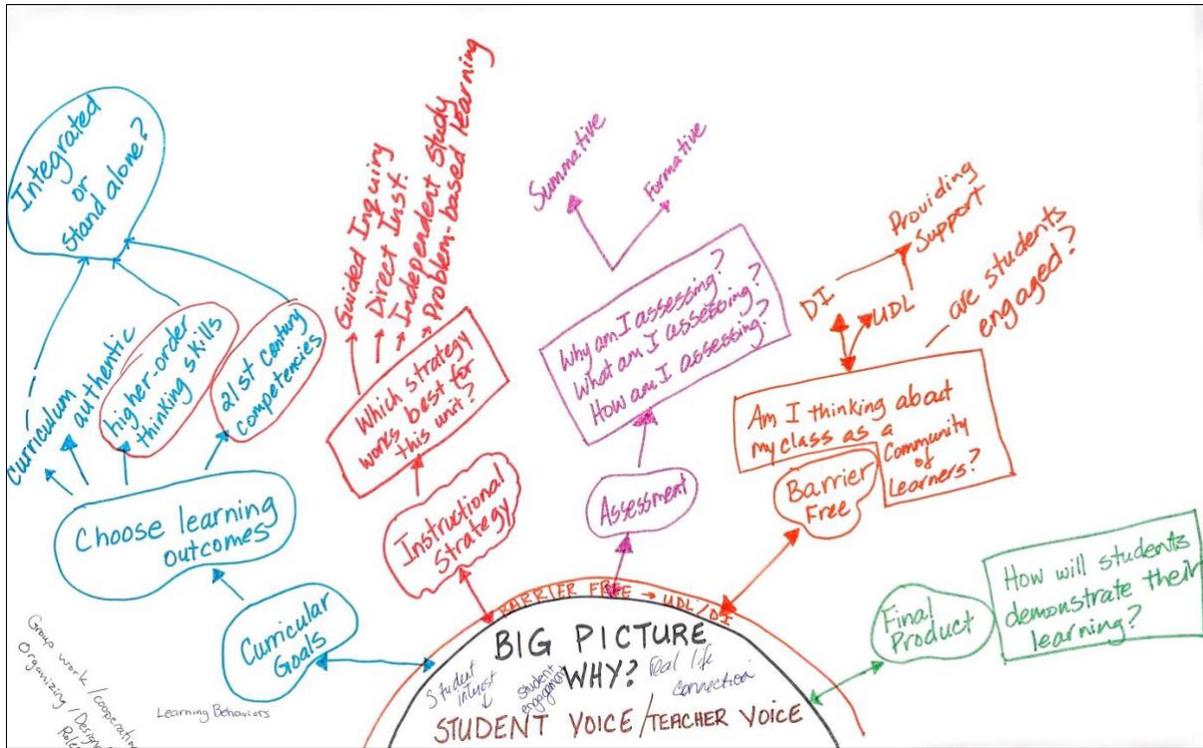
Figure 3. Second Graphic of the IPP



The graphic organizer in this poster was designed to look like a dial to represent the circuitous thinking that often takes place during the planning process. During our discussions about the planning process, several teachers raised the point that planning was not linear. The big picture in the center was represented by the questions “why?” and “real-life connection?” We enhanced the circle of inclusion with two questions; a) what have I done to ensure success for all students? And b) how have I created a barrier-free environment? A key tenet of a pedagogical planner was providing systematic guidance for teachers as they developed their plans and learning activities. The proposed questions subsequently added to the diagram (commencing with the red text and moving clockwise) were: (a) which instructional strategy makes sense with this unit, “why?” (b) which learning behaviours does this unit reinforce? (c) how and why am I assessing, and what am I assessing for? (d) am I going to make other connections, “why?” (e) what allowance have I made for student voice and interest? and (f) what is the final product, why and how will I record

student progress? Everyone agreed these were helpful questions to ask when developing a unit plan. The dial created less of a linear look to the planning process, so everyone agreed it was a clearer depiction than the previous mind map graphic. However, it did not capture exactly what the teachers had in mind. Teacher Green made the suggestion to move the central circle representing the big picture to the bottom of the page represented by an arch, with each section of the planning process radiating from the arch. Everyone agreed with this suggestion. Before the next meeting, I created a new graphic (*Figure 4*) that included ideas, questions, and concepts from the previous posters.

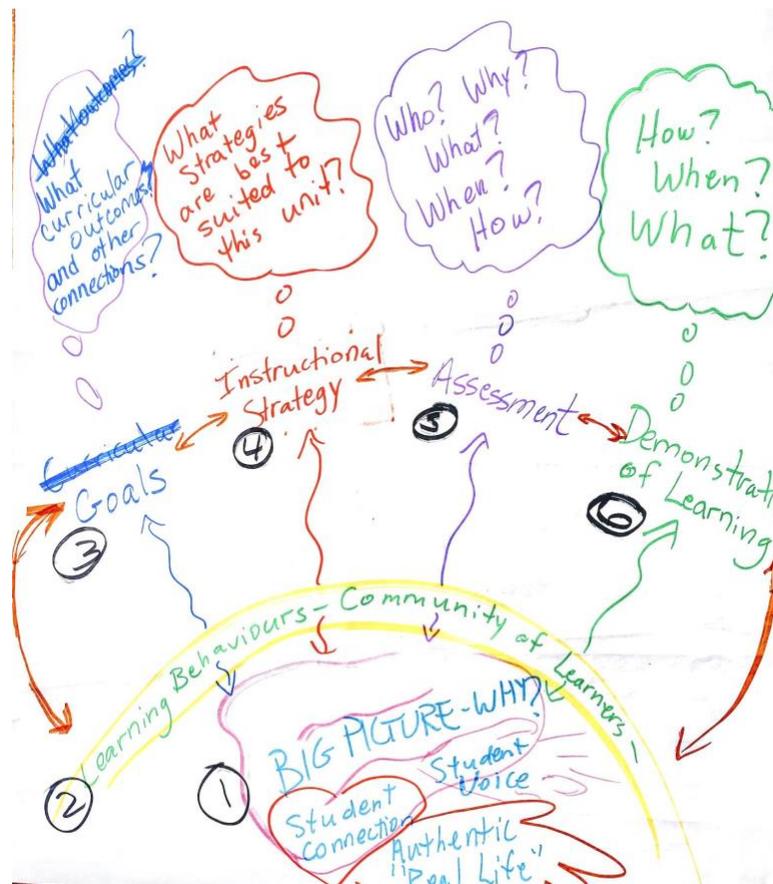
Figure 4. Third Graphic of the IPP



In the third poster, as suggested, the big picture moved to the bottom of the page rather than in the center, with each element of the planning process radiating through the arch of inclusion. The teachers suggested this change because they felt it displayed the planning process more accurately than the dial and emphasized the big picture as the starting point. We developed the original poster showing the big picture and inclusion arches, the five planning points, and the coinciding questions. To the questions, we added more details to encompass some of the ideas accumulated from the MET documents assessed in Chapter Two. To learning outcomes we added, higher-order thinking skills, 21<sup>st</sup>-century competencies, authentic learning, and a question about integrating outcomes. We added a few specific instructional strategies. Summative and formative assessment were delineated to reflect assessment in the MET documents.

Supplementary teacher discussion resulted in the addition of a question about how students will demonstrate learning with a final product. The teachers agreed the final product, or artifact (students work), illustrated in green on *Figure 4*, was not the end goal of a lesson or unit plan. The focus need to be on the learning that took place and assessing whether the students achieved the intended outcomes. The final product, or artifact, was merely the means of demonstrating the learning that took place. An additional image added to this graphic were arrows pointing in two directions, in a further attempt to reflect the fluidity of the planning process, back and forth from the big picture and through the arch of inclusion. This was added to emphasize the idea that thinking about removing barriers to learning needed to take place throughout the planning process.

Figure 5. First December Poster for the IPP



Teacher Green recommended the addition of visuals representing the brain, heart, voice, and hands of the students to the Big Picture section. In this iteration, we attempted to make the poster less cluttered. We added arrows pointing in two directions between the planning steps to show the connection between each step and to demonstrate fluidity. The initial idea was to number the process as sequential steps to reflect one of the core functions of a pedagogical planner: provide systematic guidance for teachers.

During our final meeting in December before winter break, we confirmed the six steps that we should include in the planner, developed a poster to represent the planning process, and discussed what a supporting binder could contain. At this meeting, Teacher Green raised a point about the orange arch labelled barrier free in Figure 4. He stated, "I don't like the idea of the

*orange section, it looks like a barrier, so it seems ironic to call it barrier free*” the other teachers echoed this sentiment. We talked about a different construct that we could use. We were trying to capture the idea that everything, beginning with the question “why” was linked to the guiding principles of inclusion. It was at that point the term of a lens of inclusion emerged from the various suggestions of the teachers. The arch shape reminded us of a lens. Everyone liked the term, lens of inclusion but thought it needed to be a different colour to look more translucent like a lens.

The teachers thought that a lens of inclusion conceptualized the idea of creating barrier free unit plans, thus placing the principles of an inclusive pedagogy at the beginning of the planning process. The teachers agreed that viewing the planning process through a lens of inclusion promoted an intentional, student-centred, holistic approach. The lens helped teachers maintain a constant focus on the community of learners during every aspect of the planning process. The guiding principles of inclusion developed for the study supported the lens of inclusion. Developing the lens of inclusion was a critical moment in the process as it was the integration of inclusion in the new IPP. The lens of inclusion became the identifiable marker of an inclusive pedagogical practice and further answered the inquiry question about the identification and evaluation of an inclusive pedagogical practice. A teacher’s use of the lens of inclusion could be evaluated by using the guiding principles as a checklist. We agreed that the lens of inclusion promoted the use of an inclusive pedagogy and a holistic approach to the classroom, consistent with Florian’s ideas (2014), previously highlighted in Chapter One.

An inclusive pedagogy should be intentional about "creating environments for learning with opportunities ... made available for *everyone* ... sufficiently extending what is ordinarily available for *all* learners ... rather than using teaching and learning strategies

that are suitable for *most* alongside something “additional” or “different” for *some*... (p. 290).

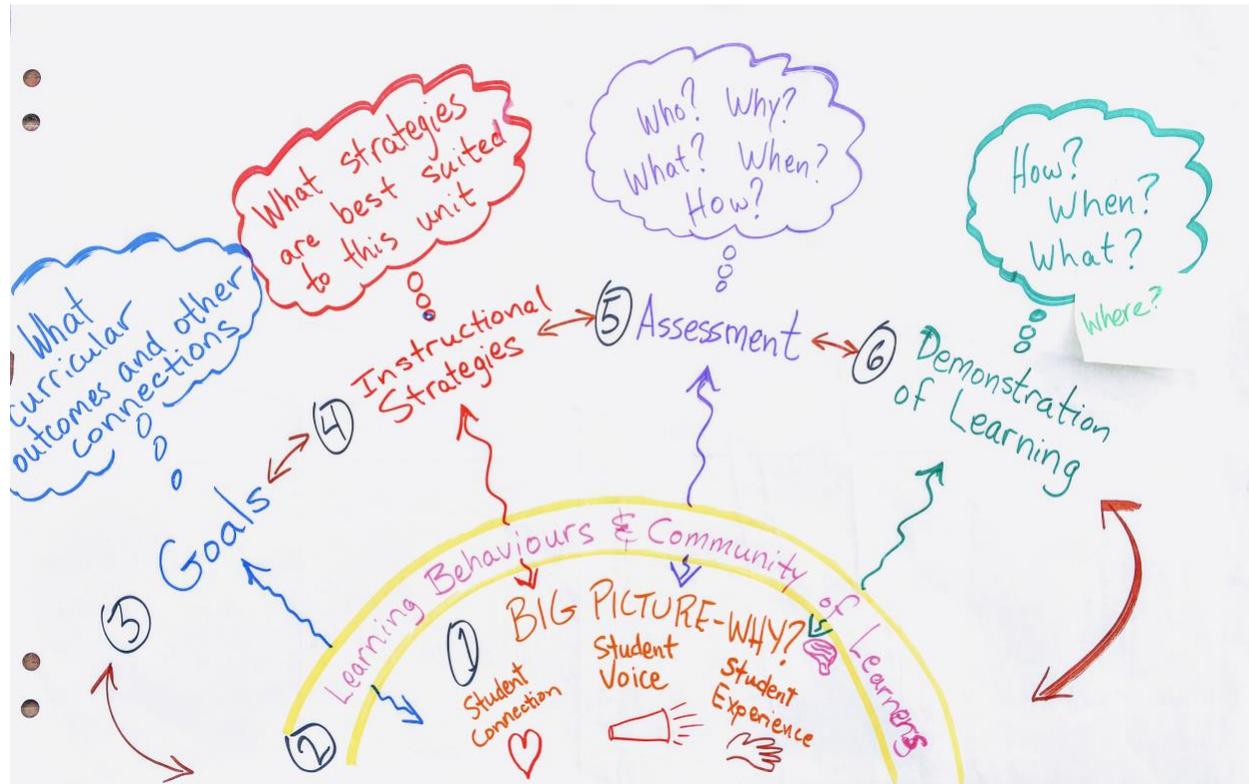
By the end of the meeting, we established the following elements and questions as the basis for a new IPP (*Figure 6*).

- 1) Big Picture: why are we teaching what we are teaching, how are we making connections to the students’ interests and experiences, and how are we encouraging students to have a voice and a choice in what they learn?
- 2) Lens of Inclusion: how are we creating a community of learners?
- 3) Goals: what are the goals of the unit we are teaching? Are the goals connected to the curricular outcomes or some other content, perhaps a current event?
- 4) Instructional Strategies: what instructional strategy or strategies are best suited to a unit of study?
- 5) Assessment: what is the purpose of the assessment? What kind of assessments will we use? When will assessment occur during a particular unit of study? How often will assessment take place? Whom are we assessing and why?
- 6) Demonstration of Learning: how will the students demonstrate their learning?

We agreed we had a working prototype that became the foundation for ongoing work after winter break. We also recognized that we could make changes as dialogue continued.

As our meetings resumed in January, we were in full agreement with placing inclusion at the beginning of the planning process instead of the end. However, several changes took place in the way we represented inclusion. As previously mentioned, we now referred to the yellow arch as the lens of inclusion. The lens of inclusion encompassed a community of learners and learning behaviours.

Figure 6. Final December Poster of Pedagogical IPP



We considered removing learning behaviours from the poster. We initially included learning behaviours because they were part of the report card and the teachers felt they addressed the social-emotional needs of the students. Upon further discussion, we identified that a teacher who considers their classroom a community of learners assumes the responsibility of ensuring the social, emotional, and academic needs of the community. The decision was made to remove learning behaviours from the poster and leave the community of learners on the lens of inclusion. While the poster in figure 6 was the best graphic we could design, we thought the yellow arch continued to resemble a barrier. I enlisted the help of a graphic designer who created the final graphic for our project (Figure 7).

Figure 7. Final Graphic for the IPP



(D. Dyck & A. Wells-Dyck, Pegasus Design, 2016)

The final poster was clear and uncluttered like the teachers had suggested. This poster graphically depicted the lens of inclusion in a more realistic way illustrating the translucent nature of a lens. It no longer looked like a barrier. The colours faded into the lens to show the flow between elements of the planning process and inclusion. Each element faded into the next, again to depict the natural flow between the elements. The questions coinciding with each element of the process have thought or speech bubbles demonstrating what teachers should consider throughout the planning process. This was also a graphic depiction of the intentionality

required in using an inclusive pedagogy. Colours used above the lens of inclusion went from light to dark to show movement from the bottom of the poster to the top. The foundation of the new IPP was the students, demonstrating its student-centred approach.

We had two more group meetings in January. By this point, we had begun collecting all relevant material in a binder. The binder had tabs and sections that corresponded to each step in the planning process we had identified. During January, we began to consider streamlining the new IPP keeping the original binder with its resources and calling it the supporting binder. We continued using a binder for the streamlined IPP, a small 1-inch binder, and kept the 2-inch binder as the supporting document.

We colour-coded the tabs in both binders for ease of reference and connection to the poster. For example, the goals tab was blue in both binders and blue on the poster. The teachers suggested hanging the poster on a bulletin board so it could become a quick reference guide for inclusive planning. Teacher Purple added, *“Even the image helps you go back and think about the whole planning process and reminds you not to jump over something or forget about something.”* The colours on the final poster were adjusted so the tabs in the IPP and supporting binder coordinated. The final graphic was added to the IPP and supporting binder.

### **Review of the IPP Prior to Implementation**

The final stage of the co-development of the new IPP, prior to its implementation, was a critical analysis. As a group, we reviewed and clarified the eight basic functions of the IPP and asked ourselves if we had included all eight. The following are excerpts from our group meeting:

Teacher Blue: *The theoretically informed decisions are based on the “Why” — why are we doing this? Did we offer a rationale? We are not saying this one thing is everything; it*

*is not the be all and end all. We are saying this is one way and we provided a rationale for each step.*

*Teacher Purple: I think the beginning pages have a rationale. It is a guide and provides good principles. We deliberately didn't put lots of research-based evidence because we didn't want it to be too cumbersome.*

*Teacher Red: The supporting binder has a number of ideas and resources that provide step-by-step guidance. It is definitely laid out in a way to give new ideas. The ideas are presented in a way that is easy to follow and gives a clear description of learning activities. We have provided tools for some different ideas about instructional approaches; we will add some more to the supporting binder.*

*Teacher Purple: I think it is better that the new IPP is so small, so it won't scare teachers away from reading it. I like the planning process all in one place to look at, as a new teacher. It is nice to have the curriculum outcomes in one binder.*

*Teacher Green: It will help with the big picture of the year - when daily life is going on it is hard to think about the big picture. For me so far, this year I felt like I was treading water and I only planned a day at a time. It would be easier if you thought about the big picture and asked the kids for ideas, then you could roll with that and connect it to the curriculum.*

The feedback from the teachers suggested that the new IPP encompassed some of the basic functions of a pedagogical planner. First and foremost, we agreed we had co-developed a planning tool that provided step-by-step guidance for teachers as they developed learning activities for use with their students. Additionally, the IPP helped support an iterative, fluid planning process, we provided a rationale for the process we developed, we created space for the teacher to think about the context and objectives of a unit plan and provided resources that could inspire teachers to adopt new learning strategies. The supporting binder provided an additional repository for some of the ideas and resources that were removed from the IPP binder. There were numerous resources and examples of good teaching practices linked to each piece of the planning process housed in the supporting binder. Resources such as, (1) ways to get to know your students, (2) how to implement differentiated instruction and universal design, (3) strategies for developing students higher order thinking skills, (4) how to guide an inquiry unit, (5) examples of formative and summative assessment tools and strategies, (6) and multiple ways student could demonstrate their learning.

After a lengthy discussion, we all agreed the new IPP (and the supporting binder) met our initial expectations and was ready to implement. The teachers said they were looking forward to using the IPP and wondered about writing in it. Teacher Blue asked, “*Can we fill in the templates and write all over the pages in the binder?*” I encouraged them to fill in as many of the templates as they could and to make notes in the IPP, so they could provide feedback about using the IPP in June at our final interview.

Out of the discussion regarding the new IPP I concluded that we had developed a tool that offered many of the eight basic functions of a pedagogical planner. With the addition of the lens of inclusion we had moved the focus on an inclusive pedagogy to the forefront of the

planning process. The teachers felt that the IPP was practical and useful for teachers to use. Once the new IPP had been implemented I felt we could fully assess how successful it was at promoting the eight basic functions of a pedagogical planner.

### **Implementation of the IPP**

The implementation phase of the new IPP did not take place as I had originally intended. As previously described, the implementation phase took place later in the school year than I had anticipated. This delay combined with the fact that only three of the four teachers fully implemented the planner, and one of the three was away at the end of the year, led to a less robust implementation and evaluation phase.

I had expected all four teachers would be enthusiastic about implementing the planner, as they had been critical members of the co-planning team. In the end, I had to recognize that trying to implement something new during the last two or three months of the school year was not ideal. Embarking on a new inquiry that late in the school year was also a hindrance to the data I was able to collect about the use of the Guided Inquiry approach. An expanded explanation of these limitations is found in Chapter Six.

### **Review of the IPP After Implementation**

In June, I had the opportunity to interview three of the teachers (Teacher Red was on leave the last two weeks of June) individually and gather data on their initial thoughts about the utilization of the IPP and about participating in the study. The responses regarding their participation on the study were positive.

Throughout the study I scheduled regular group meetings to focus on the co-development of the IPP. The meetings became a place and time for the teachers to share ideas about their pedagogic practice. This was something the group indicated would not have happened if they

had not participated in the study. Teacher Green shared, *"Having the opportunity to think about the teaching and learning process was great. I love that kind of head talk, especially with the people I am working with"* a sentiment echoed by Teacher Blue, *"the reflection aspect was great, it got me thinking in a different way."* These quotes are examples of how the teacher's reflected on their existing pedagogic practice, the first step to making a change.

The teachers indicated they felt the new Pedagogical Planner helped them think critically about the planning process in a practical way. Teacher Blue stated, *"The binders gave me some critical things to think about when designing lessons. It offered me a big picture view of my unit and forced me to think about things in a more holistic approach."* Teacher Green echoed this idea: *"It challenges your thinking, makes you pause and go back and think about that. The supporting binder is organized the same way, so when you get to "Who?" it reminds you of all your students and possibly someone you hadn't thought about."*

Teacher Blue commented, *"It challenged my thinking about UDL. I developed a purple booklet for a couple of the students; I made it available to everyone. The purple booklet was a great use of UDL."* Further Teacher Blue added,

*Since we developed the Pedagogical Planner, assessment has been brought to the forefront even more. I have been challenged to look at things from a "why" and "what" perspective. Why am I assessing this? What does this tell me? I have varied my instructional strategies, and I find myself planning along with my students. I have been listening and observing where they are at more and have been trying to guide my instruction based on that.*

Chapter Three portrayed possible benefits and challenges of using a collaborative action research methodology, such as relationship-building among the collaborators (Reason &

Bradbury, 2008; Pine, 2009) and engaging in open dialogue and reflection about a common practice with colleagues. The teachers acknowledged that they benefited from collaborating and engaging with their colleagues. They seemed to appreciate time to talk to each other during our group meetings and having time to reflect on their pedagogical practice. The group felt comfortable challenging each other's ideas, and as indicated, felt challenged in their own thinking about their inclusive pedagogy. We successfully created space for professional development that was reflective, practical, and supported critical thinking.

The responses regarding the implementation of the new IPP varied depending on how engaged they had been with the IPP. A couple of replies were very positive regarding the use of the IPP as the teachers appreciated the ease and practicality of using it and "*having everything in one place.*"

Teacher Green: *The other day I was thinking it would be nice to have the GLO's all together, so I didn't have to keep looking at different documents online, then I remembered I had them. So I got the supporting binder and used the ones we have in there. It was great.*

A couple of teachers indicated they felt the planner helped them with organizing their thoughts as they planned. Teacher Blue specified, "*It helps you organize your thinking and see how it starts with the community classroom. It helps you build the connection between that and the curriculum; it really helps organize your thinking.*" Teacher Purple echoed this idea "*When I am lacking organization, it gives it to you and lays it out well and gives you all the tools to get started. It is going to keep me more organized than I was this year for sure.*" Teacher Purple added, "*I have such a small bank of resources to draw from being new. I do things from scratch*

*all the time when I know very well that the graphic organizer I am drawing the night before probably already exists. I just don't know where."*

Furthermore, the teachers offered some suggestions for improving the IPP. On a practical level Teacher Blue felt there needed to be a template to develop his daily lesson plans. *"One suggestion I have is that I needed a place to put all my lesson plans for day-to-day, maybe a big poster that I could add everything to?"* Additionally, Teacher Purple suggested making a laminated poster of the General Learning Outcomes template we designed. She envisioned each GLO written on a separate laminated card with Velcro stuck on the back, attached to a companion chart. Teacher Purple suggested using the poster as a visual planning template. After teaching a particular GLO it could be placed at the bottom of the companion chart, so the teacher remembered they had already taught that outcome. Teacher Green suggested

*The things I found cumbersome to use were the lists of things like DI. If you read them, they do help spur new ideas. But when you are planning you are in a different headspace. I am trying to be efficient, so I am not going to stop and read that list. ... When I am planning I am trying to plan, I am not in a philosophical mindset. Might you do that at a different time? Yes - ideally planning would be an exploration time, but the reality of it is that I have to make a plan and only need the critical parts.*

I appreciated the teachers feedback and the challenge of daily planning expressed by Teacher Green. One of the basic functions of the original pedagogical planners was to support teachers as they made theoretically informed decisions when creating new unit plans. While in theory this would be ideal, Teacher Green clearly expressed the challenge teachers face as they try to balance the day to day rigor of teaching and the theory and philosophy of their pedagogic choices. I think by reaching a compromise and dividing the IPP into two binders we created the

opportunity to further develop a database of good evidence-based practices. New resources and ideas could be continually added to the supporting binder as a teacher found them, so they could be accessed when a teacher had time for what Teacher Green called exploration.

At the end of the study, it seemed as if the teachers had enjoyed being part of the study and had grown professionally as a result.

*Teacher Green: I did enjoy developing the IPP. It has been kind of neat to see the development of it, using it and evaluating it. That was really neat. I would like to try this in different settings.*

*Teacher Purple: Being part of the project has added some stress to my year, but it has been beneficial, and I have learned from it. You have done a good job of not adding stress, and you have been flexible and made the study easy to be part of.*

The planner helped teachers to use their experience and knowledge regarding the curriculum and its content; it provided research-based ideas like DI and UDL, and the supporting binder included explicit descriptions of a variety of learning and assessment strategies. As we reflected on the purposes of a Pedagogical Planner we felt we accomplished developing a new IPP that encompassed the intended purposes, on a small scale, by a) providing step-by-step guidance to the development of learning activities, b) inspiring the use of different instructional strategies, and c) encouraging an inclusive pedagogical practice.

The new IPP (see Appendix C) provided an initial response to the two main research questions posed at the beginning of the study:

1. Can a new IPP, that is useful, practical, and supports and guides an inclusive planning process, be co-developed with classroom teachers?

2. Can curriculum and inclusion be integrated into a new IPP that facilitates the development or advancement of an inclusive pedagogical practice?

A new IPP was co-developed with classroom teachers that integrated curriculum and inclusion. The teachers' initial responses after implementing the IPP indicated that they thought the IPP was useful and somewhat practical. They offered a few suggestions for improving the IPP in the future. A further examination of the findings in Chapter Five supports and enhances the initial responses to the main research questions.

## Chapter Five

### Findings and Discussion

Chapter five presents and interprets the three main themes and subsequent subthemes that emerged from the data analysis. The presentation of each emergent theme begins with a description of the theme, a discussion interpreting and synthesizing the subthemes, and a presentation of the relationship between the themes, current relevant literature, and the new IPP. The chapter concludes with a summary of the discussions.

The three central themes and relevant subthemes that emerged from the data analysis are presented in Table 5. The first theme that emerged was Pedagogic Change. This was not really a surprise considering the focus placed on best pedagogic practices during the co-development of the new IPP. The teachers and I spent many hours discussing and reflecting on pedagogic practices that we thought should be included in the IPP. These discussions occurred during one-on-one interviews with the teachers and at our many group discussions focused on pedagogic practices. As we discussed and revised the IPP the teachers expressed their (a) openness to change, (b) a desire for change, and (c) demonstrated intentionality as they made changes to their personal pedagogic practices.

The second theme to emerge was community. The first subtheme, within the theme of community is classroom community. Again, this was not surprising since the starting point of the new IPP focuses a teacher's attention to their classroom community of learners. The second and third subthemes revealed how each teacher's personality and convictions influenced the classroom community. The final theme to emerge was technology. This theme was an unexpected theme that at first seemed irrelevant to the study and the new IPP. However, later in

Table 5

*Emergent Themes and Findings*

	Theme One Pedagogic Change	Theme Two Community	Theme Three Expectation versus Reality
Subtheme One	Desire for change.	A place to belong.	Scavenging for technology.
Subtheme Two	Openness to change.	A democratic classroom.	Working within reality.
Subtheme Three	Intentional change.	Teachers influence in the classroom community.	

the chapter the connection to the study and IPP is described. The themes and subthemes are presented, supported and augmented with quotes from the active collaborators.

The emphasis in this Chapter is on letting the active collaborators speak for themselves, an essential principle of CAR (Armstrong & Moore, 2004; Creswell & Miller, 2000). Therefore, verbatim quotes are included to portray their different perspectives. Corden and Sainsbury (2006) found, "Using italicised type and indenting the quotations were popular ways of [presenting verbatim quotes] and considered to be traditional and readily recognised by readers." Therefore, for clarity, I have italicized each verbatim quote of the active collaborators.

In my role as the research facilitator, I sought to understand the teachers' pre-existing ideas about their pedagogy. Gaining this understanding supported initial relationship building through conversations, interviews and meetings. As the data was analyzed it became clear that some of the teachers' pre-existing ideas changed throughout the study, while others remained static. In order for the reader to gain a clear understanding of the first theme, I present some of the active collaborators' initial thoughts and ideas about curriculum and inclusion followed by the first subtheme a desire to change.

### **Initial Thoughts and Ideas about Curriculum and Pedagogy**

**Pedagogical practices.** As the study commenced, the teachers easily described their general pedagogical practices. They acknowledged using a variety of instructional strategies within their classrooms.

*Teacher Blue: I try to use a variety of approaches with my teaching. I use collaborative-based learning, cooperative learning, and inquiry. I also see direct instructions is useful and has its place.*

Teacher Red: *My teaching is always changing. It is adaptable, always a work in progress. It is important to me that the content of my lessons is meaningful and relevant.*

Teacher Purple: *Probably a 20/80 split between direct teaching and student work.*

Teacher Green: *So, I guess for ELA, for example, I'm really interested in kids writing at a level that works for them, something that they're interested in writing about and having it come from them as much as possible. It seems important at this age that students are encouraged to explore and find out what their interests are. I really try to do that.*

A few teachers indicated they integrated curricular outcomes as a regular part of their pedagogy.

Teacher Blue: *My approach more towards science and math is to combine the outcomes. It is nice because, for example, in science, if we are doing anything on forces and structures, it's always math that is thrown in there, so I do combine those two curriculums and it is nice because they seem more meaningful.*

Teacher Red: *I try to put all the subjects together. I am including everything except French.*

Additionally, I observed the teachers utilizing multiple instructional strategies such as: (a) group projects, (b) problem solving, (c) direct instruction, (d) discovery learning, (e) hands-on learning, (f) demonstrations, (g) inviting experts to the class, (h) technology, (i) encouraging student choice and voice and, (j) group discussions. The MET documents evaluated in Chapter Two promoted many of these strategies. For example, *Curricular Connections: Elements of Integration in the Classroom* (1997) supports integration of the curricular outcomes and

problem-solving, while *Engaging Middle-Years Students in Learning* (2010) promotes hands-on learning, discovery learning, student choice and voice, and inviting experts into the classroom. The new IPP encourages and challenges teachers to use a variety of instructional strategies. Tools are included in the IPP to help teachers track the strategies used each year and elucidates a variety of instructional strategies. A pamphlet developed by MET, *Middle Years Education in Manitoba: Grades 5 to 8 Students at the Center* (2017) was added to the supporting binder as a quick reference guide for middle-years teachers.

In all four classrooms, one of the more popular strategies the teachers used was cooperative learning as expressed by Teacher Red “*I do a lot of cooperative learning and a lot of group work*” and Teacher Blue “*we have been focusing on group work and working together.*” Cooperative learning is an instructional strategy that aligns with the constructivist learning theory promoted in the curricular documents outlined in Chapter Two. It is also a strategy suggested for use in middle-years classrooms in the MET support document *Engaging Middle-Years Students in Learning* (2010).

Cooperative learning groups were formed in various ways; sometimes the teacher chose the groups and other times they allowed students to form their own groups. Teacher Green explained, “*I want them to choose their groups and decide on their roles they have within the groups, but they often want me to choose. I need to give them a little push sometimes.*” The teachers indicated that cooperative groups were sometimes more successful than others. An anonymous response from the online survey stated:

*We work in heterogeneous groupings where the emphasis is placed on cooperative learning ensuring that everyone can demonstrate that they are engaged in learning with*

*the group and entrusting their classmates are as well. I have had to continuously reteach and reconsider group work.*

Not a surprising response considering cooperative learning is a complex instructional strategy. A strategy that often needs scaffolding to ensure its success in the classroom. Scaffolding such as pre-teaching, re-teaching, demonstrating, practicing, and practicing a gradual release of responsibility are some of the strategies suggested in current literature about cooperative learning (Barron & Darling-Hammond, 2008; Blatchford, Kutnick, Baines, & Galton, 2003; Fox, 2010; Gundara & Sharma, 2013; Johnson & Johnson, 2009).

**Approaches to planning.** At the onset of the study, all four teachers identified a different approach to planning the curriculum. They discussed planning decisions based on student success, student interest, relevance, the layout of a curriculum document and even using ideas from Pinterest.

*Teacher Blue: When I am thinking about the planning, one of the first things I ask myself is will this activity or lesson provide opportunities for all the students to be successful? If the answer is yes, then I continue with my planning. One advantage of ensuring the content is relevant to students in my class is that it is often motivating for everyone and, in some cases, provides a more approachable entry point*

*Teacher Green: For math, I basically follow the order in which they appear in the curriculum for this grade.*

*Teacher Purple: I'm looking at the general idea of the general learning outcomes, and choosing specific ones, which are most exciting to learn about, or that the students are*

*interested in. I look at the big pictures and then I can see the specific learning outcomes. Teaching both Grade 7 and 8 allows you to pick and choose the ones you might like to do.*

*Teacher Red: I read the curriculum documents, find sections that I can imagine tying together with other subjects under a certain theme, but I also read outcomes, and think about what themes I can make to fit those outcomes.*

From the discussion I had with the teachers it seemed like some of them were not making systematic choices regarding curriculum. Teacher Purple talked about making decisions based on what students were interested in and excited about. Teacher Green chose to follow the math document from start to end, and Teacher Blue chose curriculum he felt would help the students be successful. Tomlinson and McTighe (2006) state, “it is vital to be clear about what is essential in [curriculum] content” when planning responsively. Too often teachers are not sure how to get from point A to point B; so, developing a clear plan can be a challenge. One goal of developing the new IPP was to support teachers in clearly establishing an overall goal for each unit by providing a step-by-step guide that supported making intentional decisions about curricular outcomes, student interest, and student success.

**Prioritizing curriculum.** During our discussions the teachers articulated the challenge of deciding which, and how much curricular content to cover. Several factors influenced how the teachers prioritized curriculum (a) level of familiarity with curricular content, (b) the availability of the curriculum documents, and (c) time. The teachers who were more familiar with the curricular documents seemed better equipped to make decisions about what to teach. This made sense and lined up with what Tomlinson (2017) suggested that teachers need to be very familiar

with the outcomes provided in the mandated curricular documents, in order to establish clear goals for their students.

The two teachers with the most experience appeared more familiar with the core subject curricular documents. They described their process of selecting curriculum as follows:

*Teacher Red: When I start my school year, I read the curriculum documents, so I am familiar with what they need to learn. I do not read line-to-line, but I do know what I need to teach. I have photocopied the sections I am using then from day to day, I read almost every day, so I know what I am doing. I follow the curriculum guide most of the time, and I go to the website often. I go there because it's easy to access and to print out the blackline masters for math and science. I always go to the Internet site for everything.*

*Teacher Blue: So, if I were to say rate myself out of 10, I would give myself an 8/10 (on familiarity with the core subject curricular documents). The core subjects I look at on a weekly basis. The MET website, I am on there probably four or five times a week looking at curriculum documents and blackline masters. I believe that the curriculum documents that have the charts are easy to see, I look at them often.*

A vastly different approach to that of Teacher Purple who explained that she taught what she thought her students were interested in and excited about. *I have the students decide what they are most excited about learning and what interest they have, we go from there. I'm just doing what they are interested in. Right now, we are doing a poetry unit and they love it.*

As described in Chapter 3, Teacher Purple identified she was not very familiar with the learning outcomes in any of the Grade 7 or 8 curriculum frameworks. Her lack of familiarity with the documents made it difficult for her to prioritize which curricular outcomes to teach, and

to develop rigorous lesson plans. It also became a roadblock for Teacher Purple as plans began for the guided inquiry unit (a point elucidated later in the Chapter).

An added factor that influenced prioritization of the curriculum was its availability. The ELA document, as previously indicated, was not available online due to its copyright. None of the teachers had a copy of the ELA document. I asked the principal if the school had any copies of it, she informed me they did not. In the absence of the ELA curriculum document, I questioned the teachers how they planned and taught the subject.

*Teacher Purple: I don't necessarily like the ELA document and the general consensus is that the document is useless anyway so I don't use it.*

*Teacher Blue: The ELA (specific learning outcomes) I do not use necessarily as much but I know because of the way that it's structured when you're read it we are doing a lot of it. So, you know, can students work cooperatively with each other, this is part of the ELA document, so is working collaboratively. That sort of thing, like, we're doing it, so I'm not really worried about checking outcomes off my list, whereas math is a little more concrete, or science is a little more concrete, or social studies is more concrete.*

I was surprised to hear a teacher say they did not really like a particular curriculum document, so they did not use it. Teacher Green indicated he felt the same way as Teacher Purple. I wondered what they would have done if they did not like any of the curricular documents? The dismissal of a curriculum document seemed to be somewhat connected to the lack of knowledge about the curricular content. For example, there are aspects of the ELA document that are irrelevant such as references to old technology like a CD Rom. However, the fundamental concepts of listening, speaking, reading, writing, viewing, and representing “in a

variety of combinations and relevant contexts using a variety of texts” (Manitoba Education, 1998) still seem relevant. These concepts were also included in the four foundational skills MET required teachers to integrate into their daily teaching (Province of Manitoba, 2017c). A teacher familiar with ELA outcomes could integrate them intentionally into classroom assignments and identify them for the students as demonstrated by Teacher Blue. For teachers, less familiar with the ELA outcomes, it became more challenging to intentionally integrate them with other outcomes.

Each teacher had autonomy over the curriculum and could make choices about which curricular outcomes to include and which to exclude. The Manitoba Teachers Society Professional Development Chair Handbook (see [www.mbteach.org](http://www.mbteach.org)) equates professional autonomy with professional judgement. In other words, teachers are to make their best professional judgement regarding curricular content. As highlighted, familiarity with curriculum documents played a pivotal role in the decisions made. Those teachers who were more familiar with the curricular documents seemed better equipped to make professional judgements about what to teach. A goal of the new IPP was to support teachers as they made informed, intentional, professional decisions about curricular outcomes, while simultaneously increasing their level of familiarity with the curricular documents. A copy of MET’s Curriculum Essentials was included as an appendix in the new IPP and a copy of the GLO’s pertinent to Grade 7 and 8 was included in the supporting binder for quick and easy reference as well as links to the MET website. We thought that providing a quick and easy reference guide, teachers could be encouraged to look at them more frequently thus increasing their level of familiarity with them.

**Authentic connections.** During one of our group discussions the teachers indicated connecting the mandated curriculum to students’ lives and making learning authentic was a

priority for them. Teacher Green summed up the way the group felt when he said, "*I guess for everything I am teaching; it's important to me that it be connected to their real lives, and I want them to know why they are learning it.*" As discussed in Chapter 1, authentic learning is considered an essential competency in 21<sup>st</sup> century classroom (Lombardi, 2007; Lujan & DiCarlo, 2006; Salas-Pilco, 2013), it was also an instructional approach purported in the *Independent Together: Supporting the Multilevel Community* (2003) MET support document.

Making authentic connections with some of the curricular outcomes proved more challenging than with others. For instance, a few of the teachers found the social studies topics concerning ancient civilizations particularly challenging to connect to their students' real lives.

Teacher Green: *One of the things in the curriculum is learning about Egypt and Mesopotamia. To me, it's hard to think of a way to make that seem relevant to anyone, but to these kids... So really, I really try to wrestle with a way to make ancient Egypt somehow relate to their life, and I am trying to find that entry point.*

Creating authentic lessons appeared to be a struggle for the teachers throughout the year. However, the teachers discussed that as they got to know their students better they could be more responsive to their interests. This knowledge allowed them to integrate student interest into their unit plans and encouraged students to make personal connections to the curriculum. We further discussed how being more responsive and attentive to student interests and learning profiles, was a demonstration of differentiating the curricular content (Manitoba Education 2010; Tomlinson, 2017). Teacher Green struggled with establishing an entry point into ancient civilizations all through the year. However, Teacher Purple devised a very interesting entry point as she connected amusement parks to Ancient Rome.

I was also interested in the teachers pre-existing thoughts and ideas about inclusion and

their own inclusive pedagogy. Therefore, during my initial interviews I asked the teachers to share their thoughts about inclusion, differentiated instruction, and universal design for learning. I also asked them to describe how they created an inclusive environment in their classrooms. The following are a summation of their responses.

### **Initial Thoughts and Ideas about Inclusion**

All four teachers considered the practice of inclusion vital and supported it philosophically, aligning with the literature about inclusion presented in Chapter One (Gordon, 2010; Rouse, 2008; Specht, 2016). Their responses to the question about inclusion, on the anonymous online survey, varied:

*Inclusion is important because it allows all students to feel a sense of belonging. It also provides student with an opportunity to help each other and learn from one another.*

*Inclusion allows students to develop empathy with one another and assist each other with their struggles.*

*It's important to me that everyone feels like they have a place in my classroom and our school. On the other hand, I think there are circumstances where it benefits a student of a group of students to work separately or with another teacher.*

*Everyone can have a role in what is being done. Everyone is aware that people have different needs to be successful, and we work together to make sure everyone feels that they are getting what they need.*

These statements illustrate the confusion alluded to in the literature regarding how to define inclusion (Ainscow, 1995; Booth, 1996; Slee, 2007). The teachers described inclusion as a place

to belong, helping others, being aware of difference, and even a place of separation. They did not define it in a cohesive way.

Additionally, I asked the teachers to tell me about the diversity in their classrooms. I anticipated that all four active collaborators in this study would describe their classrooms as diverse. They were each teaching multi-age classes made up of both grade 7 and 8 student and had previously indicated they had many English Language Learners. Therefore, I was surprised by some of the responses like the one from Teacher Blue, *“My class is not very diverse actually.”* Teacher Green and Red echoed this response. This response seemed to reflect a narrow view of diversity.

Teacher Purple was the only one who said she considered her class quite diverse and shared that she felt ill equipped to manage the diversity in her classroom, *“Sometimes I feel overwhelmed, just trying to keep my head above water.”* Similar responses were recorded on the online survey. *“I feel inexperienced and I haven’t known the students long enough to have seen patterns emerge in how to address their learning needs.”* Another teacher recorded *“there are a variety of needs in my class and without adult support it is hard to meet the needs of all students all the time. I try my best to be prepared to help include the students who need extra support of modified/adapted work, but no I don’t feel well prepared to do this.”* Throughout the study Teacher Purple indicated that she continued to feel overwhelmed and ill equipped to cope with the needs in her classroom. *“My class is pretty challenging so I wish I could duplicate myself a few times because half my class need one-on-one time to get things rolling or completed.”*

Some of the teachers indicated they felt ill-equipped to sustain or enhance an inclusive practice in their classrooms. This echoed the concepts found in the literature presented in Chapter One (Black-Hawkins, 2010; Brackenreed, 2011; Ferguson, 2008; Florian, 2008; Forlin,

2012; Horne & Timmons, 2009; Lancaster & Bain, 2010; McLeskey & Waldron, 2002). As already stated, a primary goal of the new IPP was supporting teachers in developing and sustaining an inclusive pedagogy. Encouraging teachers to use the lens of inclusion throughout the planning process and challenging them to think about their community of learners first, supports the idea of intentionally planning for diversity.

**Lack of operational knowledge of DI and UDL.** Two models of inclusion promoted by MET (described in Chapter Two) are DI and UDL. I asked each teacher about their understanding of DI and UDL. Their comments reflected a general lack of operational knowledge regarding both.

Teacher Purple: *I know about the support document (referring to Success for All Learners) with graphic organizers to help students organize their thoughts and information. Haven't used it as much as I probably should.*

Teacher Green: *I understand it (UDL) analogously in the architectural context where a space is designed so that it functions well for anyone who might use the space. For the most part, I try to make what we are learning universally relatable.*

Teacher Blue: *I try to adapt and modify my students' work. They might not be able to do an oral presentation, but they could draw or something.*

Survey response: *I think about UDL and about ways to adapt for students so that they can extra work for a student to do to help them practice some underlying concepts. I would consider this and "add-on" but I think it's a necessary exception to my usual classroom practice.*

Teacher Red: *I have a book on how to teach differentiated instruction, but I would say I do not know much about it.*

The question was then posed about which DI strategies they used. Again, a limited interpretation of DI was reflected as the teachers used very little language typically associated with DI by MET, and in the literature reviewed.

*Some of the differentiated strategies I use are chunking – if students are struggling with the quantity of work, I reduce the reading, writing, etc. that they have to complete. I find this helps reduce student anxiety and they are able to complete more work.*

*Every student is given a lot of freedom to produce their work in a way that makes sense to them. While everyone is producing a piece of writing this might look a lot of different ways, and different students will be working on different aspects of their writing. I provide reading material that I think will be engaging and challenging for each individual student.*

The responses from the teachers were quite general, with only one concrete DI strategy itemized – chunking. I wondered what other strategies were used by the teachers to create an inclusive environment. The literature reviewed for this thesis indicated that a general understanding and belief in inclusion did not necessarily lead to an inclusive pedagogical practice. I wondered if this was true of the group of teachers collaborating in this study. I looked at the online survey to understand how the teachers established an inclusive environment in each classroom.

*I create an inclusive environment by listening to students. I value their input and believe that it is very important for a healthy classroom environment. I create opportunities for everyone to demonstrate their strengths.*

*Inclusion a message I reinforce verbally and in actions all the time, from the very first day. I try to teach everyone to be inclusive. For example, I insist that our meetings in a circle do not leave anyone sitting outside of the circle.*

*I think building the classroom community has a lot to do with it, identifying at the beginning that everyone is unique and different in their own way and to embracing those differences.*

While these are all positive strategies to use in the classroom, the responses did not reflect a deep understanding of how to create an inclusive classroom or use an inclusive pedagogy. The descriptions included words like recognition and acceptance of difference, listening to students, student strengths, and student success. Yet, the teachers were unable to elucidate a clear depiction of their inclusive pedagogical practice.

### **Theme One: Pedagogic Change**

**Desire for change.** The teachers in this study reported teaching “*all subjects except gym, band, and technical education.*” Each teacher had the students in their classroom for the majority of the day. All four teachers felt it was unlikely they could teach all the required learning outcomes in one school year, a situation they expressed created tension. They seemed to experience the same sense of curriculum overload outlined in the 2010 report of the National Council for Curriculum and Assessment and in a report by Froese-Germain (2014) that described

some Canadian teachers as “surviving, but far from thriving” (p. 2) due to the demands of curriculum content. They all expressed a desire to change the pressure they felt to teach all of the curricular content.

Sousa and Tomlinson (2011) wrote that “most teachers struggle with the reality that there is far too much content to cover in each unit they teach” (p. 47). This can result in teachers racing through the content. Sousa and Tomlinson (2011) added “If new learning and understanding are to find a secure place to take hold in the brain’s memory network, then they need to make sense, build on past experiences, establish connections, and take meaning from those connections that ultimately emerge” (p. 48). Racing through curriculum content allows little time for critical reflection and or focused interaction with others, both important tenets of the constructivist approach to learning promoted in the MET documents. The teachers expressed their initial frustrations in various ways. For example:

*Teacher Purple: You don't have lots of time to get stuff done. So, if something is working really well in the afternoon and your supposed to have French, it gets kind of pushed aside but then you don't meet the criteria of 240 minutes of French per week, so it is hard. Basically, you need to integrate. I haven't done much art yet either, I don't have a specific time to do that in the schedule because there is so much going on. There is a whole lot to fit in.*

Teacher Green recognized “*part of the challenge is I get caught up with giving them more and more material, I just keep cranking it out but I need to breathe a bit more and give them room to explore things more.*” Teacher Blue added he felt “*pressure*” to prepare his Grade 8 students for high school. He suggested, “*Most teachers do.*” He also mentioned “*there's a ton to teach in terms of curriculum. You want to make sure you are actually covering everything.*” Teacher Blue

elucidated the point further by adding "*sometimes I am over ambitious, and I need to scale it (curriculum) back quite a bit.*" He expressed apprehension that he may not be spending the time needed to develop the skills his students required for high school when he spent time on inquiry projects.

*If the high schools are not changing then, we're setting them (the students) up not to give them the skills to be able to sit and write an exam or test. I love it in middle school. I just wish that the high schools changed, but then the universities would need to change as well.*

The teachers desired to change the pressure and tension they experienced regarding the curriculum but initially were unsure how to implement a change. However, as we continued meeting as a group and the teachers had the opportunity to share their own pedagogical practices with each other, the discussions began to change. For instance, during the first set of interviews in October the teachers expressed their concerns about their schedules, a topic that was raised again in January at a group meeting.

The teachers explained how the grade 7/8 students had the option to participate in band and, or, choir. The teachers described that small groups of students from all four classes attended band or choir for 40 minutes at a time, five days out of six. All four teachers expressed their frustration with this schedule as they acknowledged they felt they could not introduce anything new while several students were out of the class. A feeling summed up by Teacher Blue, "*we have too many interruptions in our day.*" They also indicated that the band and choir schedule was decided without their input. Their desire to see a change in the schedule was expressed by Teacher Purple who suggested, "*we need to talk to the principal about this schedule and make sure it is changed for next year,*" an idea the rest of the group agreed upon.

As the discussion continued, Teacher Red shared how she broached the situation, *"during band and choir the students who remain in the classroom work on an exploratory project of their choice, it is like a small inquiry study. Each student chooses a topic, researches it, then makes a presentation to the class."* Teacher Green asked, *"do the students choose a random topic?"* Teacher Red responded, *"The students have a choice within a broad topic I assign. Right now, they are all exploring artists."* Teacher Green liked this idea and indicated he might try it in his class. Teacher Purple added that she did something similar following a program called Genius Hour (see <http://www.geniushour.com>) that allowed the students to research a topic of their choosing throughout the term.

Teacher Green was intrigued by the idea of allowing his students to research a topic of their choosing. Teacher Red shared a practical approach that allowed Teacher Green to contemplate a change in his pedagogic practice and his desire to make a change in the use of classroom time when students attended band and choir sessions. Several weeks later Teacher Green introduced the idea of interest-based research projects in his class. As I entered his class one afternoon I noticed he had written on the board, *Like say you were gonna research whatever you wanna and do any project you feel like, what would you research and what would your project be?* This led to individual research projects in his class. He made an intentional change to his pedagogical practice after his colleagues shared their ideas. I interpreted this change in his practice as a direct result from his participation in the study and his participation in the ongoing group discussions that focused on pedagogical practice.

At the end of the study the teachers indicated they had appreciated the collegiality and opportunity to spend time talking to each other and learning from one another. They felt this

would not have happened if they were not active collaborators in the study. Teacher Green expressed the feelings of the group,

*I enjoyed being part of the collaborative process and conversations about developing the planner. Having the opportunity to think about the teaching and learning process was great. I love that kind of head talk, especially with the people I am working with.*

Some of the teacher's expressed a desire to change or advance their inclusive pedagogy. Teacher Blue recognized he had work to do to create an inclusive classroom and expressed what he planned to do.

*I'm always trying to expect the same, my standard is always really high and yet sometimes school is the last thing on a kid's mind. I am working on being a little more understanding to the kids backgrounds. I may be more understanding but I don't adequately cope with it in a better way, so that is something I want to work on.*

Teacher Purple expressed her desire for more support as she developed inclusive strategies in her classroom. *"I tried to get a couple of students working, then the next group needs me to get them started, meanwhile the first group is on the next step. The high needs in my class has continued to be challenging. I have not received the support I would have liked, I have struggled with a balance of freedom and structure."*

**Openness to change.** As stated in Chapter Three, involvement in a CAR study requires a commitment to a study and a willingness to grow and change in the process (Borgia & Schuler, 1996). Throughout the study, the teachers appeared open and willing to participate in the co-development and implementation of the new IPP and to using a new pedagogical strategy, Guided Inquiry. They contributed to the discussions, raised questions, shared ideas, reflected on their own practice, and welcomed me repeatedly into their classrooms. Their openness to new

ideas became a common stance for the duration of the study. The teachers showed their willingness to gain new experiential knowledge, share their practical knowledge, expressed their new presentational knowledge in the construction of the new IPP, and demonstrated their practical knowledge as they implemented the new IPP. By engaging in these four ways of gaining knowledge they adopted what Heron and Reason (1997) described as a participatory worldview.

The teachers remained open to change throughout the study. For example, observation schedules changed several times due to various changes to the school schedule of events. However, I was still able to complete the majority of planned teacher observations because of their willingness to accommodate change, even when the timeline changed twice, extending the study's duration. Accepting the changes to the timeline was an expression of their willingness and commitment to the study and the democratic process as their input was vital in realigning the timeline. It was also evidence of the relationship building that had transpired, as they wanted to see the study succeed. Commitment to the study, a democratic process and relationship building are three key elements of collaborative research that were evident in this study (Armstrong & Moore, 2004; Borgia & Schuler, 1996; Pine, 2009; Reason & Bradbury, 2008).

Teacher Purple summed up how most of the group felt about joining the study:

*I'm excited; the most appealing thing to me is that I'll probably be able to learn something new. I think it will be good to have another helper (referring to me) to help me in my planning because I am not an expert on things. I will be able to learn from you and the rest of the teachers as we are working together. It is a learning experience for all of us.*

Teacher Purple's comment appears to indicate an openness to change as the study commenced. She indicated that she anticipated gaining new knowledge from her colleagues and me. Teacher Blue, anticipated gaining new knowledge about the process of CAR.

*The part that interests me the most is probably just the process. Having a chance to work with a PhD candidate and seeing the research we read about in our course, we read a great amount, put into practice will be great. I'm a science major so I think research is extremely important and I know it can help guide my practice for sure. So seeing how it starts, and how it ends then be able to read this thing that you publish, seeing exactly how this is done is something I am really excited to be a part of. It's not necessarily the results of the study I am interested in it is more the process.*

In addition, Teacher Blue indicated that he planned on using his new knowledge in written form as he composed and presented his annual reflection of personal learning (ARPL). The divisional office required annual ARPL's from all teaching staff. His response appeared to indicate he anticipated professional growth because of participating in the study.

In addition, all four teachers expressed interest in learning about, and implementing a new instructional strategy, inquiry-based learning. An idea summed up by Teacher Green, "*I think Inquiry is something I would love to know how to do and it will fit well with my teaching approach, it is something I will use. Right now, I am at a loss of how to do that.*" None of the teachers had prior knowledge or experience with the Guided Inquiry framework I introduced. Using Guided Inquiry required growth and change in pedagogic practice, a further demonstration of the teachers' willingness to gain new experiential knowledge they would put into practice.

Gaining new knowledge about inquiry seemed to appeal to all the teachers. Yet, some were a little apprehensive about demonstrating their new knowledge as they implemented the new instructional strategy.

Teacher Red: *I am a little nervous about it (Guided Inquiry) and wonder if it will go according to plan. I will need help ... I may get confused at the beginning. I am not a perfect teacher of inquiry, as it is my first time really teaching with inquiry. I wanted to learn about inquiry.*

The early interest in using Guided Inquiry was sustained throughout the study. Teacher Purple and Red met with me individually on several occasions to talk about the Guided Inquiry Framework, and all four teachers developed and implemented an Inquiry unit.

Teacher Green and Purple were unable to start their inquiry unit in May. This was not an ideal time to implement something new or to begin a new project as according to the teachers, students are generally less focused as the end of the school year approaches. They felt this was particularly relevant to the grade 8's. The teachers told me that most of the Grade 8 students were thinking about moving on to high school and had as Teacher Blue described, "*checked out of what was going on in the classroom.*" Nonetheless, Teacher Purple and Green persevered and began their inquiry units showing their dedication and commitment to the study. This level of commitment demonstrated a high level of willingness and openness to a new instructional approach so late in the school term. In the end Teacher Purple felt positively about the changes she made, "*being part of the study, I enjoyed how we changed and were dynamic.*"

**Intentional Change.** Over the course of the year, some of the teachers' pedagogical practices changed as a result of their involvement with the co-development and implementation of the new IPP. The teachers were challenged to make intentional changes to their pedagogic

practices. For example, one major change was the addition of a new instructional strategy, Guided Inquiry. This was not a surprising change since it was part of the design of the study to use Guided Inquiry during the implementation of the new IPP.

However, in anticipation of implementing the Guided Inquiry unit some teachers made unexpected, intentional changes to their pedagogical practices. For example, Teacher Blue and Teacher Green decided to spend time focusing on research and inquiry skills, and Teacher Purple and Teacher Green described planned to address the students' poor reading comprehension skills. In each case the teachers believed they needed to teach these skills so that their students were prepared for the Guided Inquiry unit. The teachers recognized that their students were not ready to fully participate in an inquiry unit, so they pre-taught the necessary skills their students needed. Pre-teaching is an example of differentiated instruction, and a demonstration of responsive teaching as the teachers proactively responded to their student's level of readiness (Tomlinson & Moon, 2013).

***Research and inquiry skills.*** Teacher Blue had some prior experience using inquiry learning as an instructional strategy. He shared with me that during previous attempts at inquiry developing big questions was something the students had grappled with.

*The students tend to base their inquiries on answering small questions. I think it is partly due to their Kindergarten to grade six experiences. In grade 1-6, all their research is about answering a simple question. We say here is a research project, here is a book report, here is whatever, so when they try inquiry, they have no idea how to answer big questions. We can harp until the cows come home, they will still find tiny data and tiny answers. I want to tell them to think and focus on higher order thinking skills.*

Therefore, to prepare his students for the Guided Inquiry unit, Teacher Blue made an intentional decision to focus on teaching the students to engage their higher order thinking skills. According to the pamphlet *Middle Years Education in Manitoba* (2017) grade 7 and 8 students are beginning to develop the ability to think critically, so this was an appropriate skill to help the students develop. Teacher Blue wanted his students to have the ability to generate what he called “thick” questions as the starting point for their inquiry. He had also expressed on several occasions that he desired his students to be successful, so it was not a surprise to see him respond in this way.

Teacher Blue used various tactics to help his students engage their higher order thinking skills. For example, he told me about the students critical thinking writing journals. *“I really liked the critical thinking journals; they liked to share their writing. Some things I thought would be one lesson turned into a 2 or 3-day lesson.”* Teacher Blue told me that a lesson I observed him teach about gender identity was something he had envisioned as one-time journal entry. However, once he saw how engaged the students were, he extended the number of lessons about gender identity and asked the students to write additional reflective pieces in their journals.

Teacher Blue described how he used two popular movies to encourage his students to engage critical analysis strategies such as comparing, contrasting, predicting, and developing hypotheses. Teacher Blue asked the students to write a critical analysis of the two movies comparing and contrasting the themes, characters, and settings. During one of our conversations he shared how impressed he was with the type of analysis the students wrote.

As a way of introducing the Guided Inquiry unit to the class Teacher Blue modeled how to ask thick and thin questions using a gradual release of responsibility model (Fisher & Frey, 2008). He had developed a research guide for the students that modelled thick and thin questions

the students could use as a reference guide. He also led a brainstorming session about thick and thin questions covering different topics. At the end of the class Teacher Blue told me he was “*blown away*” by the questions the students asked and indicated that pre-teaching critical thinking had been a worthwhile strategy. The new IPP supporting binder included a number of instructional strategies teachers could use to teach higher order thinking skills. For example, one resource included was a link to [www.KathyShrok.com](http://www.KathyShrok.com) that provides information about numerous Apps and websites about Bloom’s Taxonomy.

Following winter break, Teacher Green explained he felt his students had weak research skills. He also indicated that he knew they would need stronger research skills when they started the Guided Inquiry unit. He told me, “*After so many failed projects I noticed the kids were just going to Google images, so I thought I needed to do something different because they didn't know how to move beyond images.*” Responding to this need Teacher Green decided to directly teach research skills, another example of responsive teaching. He introduced the idea of conducting research by equating it with playing a video game, connecting to their real-life experiences. He told the class,

*As we are doing research, we are going to ask questions. Research is like a video game. You have a path; you go down it, and you find thousands of results. For example, if you type Middle Ages into the Google search bar you will find images about the middle ages, and Wikipedia has information; you have options. A little less exciting than a video game, but exciting nonetheless. You can follow the cartoon knight and die – this is a dead end to research. I know I followed the wrong path. Images give you a few ideas, but now I need to go back. You need to check out the other paths. How do I choose which one?*

Teacher Green developed a five-step process for research: (a) look at some pictures and read general information in language we understand, (b) find several sites that are useful, (c) read and understand the sites, (d) check out a good video and (e) make notes of what you want to investigate. Teacher Green looked at a few images and videos to model for the students how to narrow down a web search. Teacher Green modelled the five-step process on several other occasions demonstrating the use of a Gradual Release of Responsibility.

Teacher Green guided the inquiry unit by providing the inquiry question, “*Are we in a golden era, or a dark age?*” The Guided Inquiry unit involved the development of a historical timeline. Teacher Green envisioned the timeline helping students understand the eras associated with ancient history. Teacher Green also pre-taught the concept of a timeline during a math unit, so it was a familiar concept. He hung string around the room from the ceiling like a clothesline so that each era of the timeline had its own section. He told me that each group was to develop big questions about a specific point on the timeline, print the questions and hang them on the timeline. Teacher Green met with each small group and prompted them as they began developing their questions. He supported their understanding as he asked why some questions were small and talked to them about how they could turn them into big questions. Demonstrating the “we do” phase of a Gradual Release of Responsibility. Teacher Green told me he was impressed with the final big questions the students generated.

Teacher Green reflected on the work the students did and on using inquiry as an instructional strategy.

*I think they (the questions) have a lot of potential, but I have run out of time. If I were going to start over again, I would do some of these things sooner. I think they have the potential for inquiry to go longer and for students to really explore things. It has forced*

*me to think about inquiry and how I can make an inquiry project and how can I teach inquiry. This has been a real focus. Sometimes it has been more stressful because I had an idea but wasn't sure how to teach it with an injury, but that has been beneficial. It is hard for me to say how much I would have done anyway and how much I changed because of the study.*

The second part of the research question (i.e., Did the new IPP influence the planning and instruction of middle-years teachers?) highlights instruction. Using the new IPP for this study did influence the teachers' choice of instructional strategy as I asked them to use Guided Inquiry. Guided Inquiry was a new framework for the entire group. They all willingly planned and implemented a Guided Inquiry unit. As already illustrated, some had more success with it than others, but they all tried a new strategy. One of the goals of the IPP is to support and guide teachers as they try new pedagogical practices. Whether teachers would make this choice independently is at this point unknown. Additional use of the IPP is necessary to determine if it influences instruction or not.

***Reading comprehension.*** During our regular group meetings second term, the teachers often shared with me and with each other their concerns about students reading comprehension. These concerns suggested the teachers better understood some of the diverse needs in their classrooms. Teacher Purple and Green noted that their students were good at decoding but had weaker reading comprehension skills.

*Teacher Purple: I'm still not sure how much (English) they understand, and the class doesn't like reading. I noticed in first term some students had memorized words and could read for the sake of reading but when I asked them questions about what they had read they had no idea, they just read words off the page.*

Teachers Green and Purple made intentional changes to their pedagogical practice as they came to understand their students' poor reading comprehension skills. A further demonstration of responsive teaching as the teachers identified a particular academic need and responded to it. Feeling unsure how to teach reading comprehension to middle-years students, they told me they had elicited the help of the principal who began co-teaching with them. Teacher Green and Purple talked about the co-teaching they did with the school principal.

Teacher Green: *I think one thing I forgot was how much modeling you need to do when teaching something new.*

Teacher Purple: *So, we have been teaching them each step of the reading and thinking process. We are still going through them. I think they pay attention more, and they know we are going to ask specific questions, so they work more while they are doing it.*

Teacher Green added,

*I have seen such an improvement in the type of questions they ask and ways to find answers has improved. At the beginning of the year I just thought they (the students) had nothing to say when I asked them what they were reading now I think they just weren't getting it.*

Through co-teaching, both teachers gained new knowledge and experience that enhanced their pedagogic practices. Teacher Purple described the improvements she observed in her students' abilities to generate questions as they read, indicating they were reading for meaning. Some of the students moved from de-coding to reading.

***Reflection on pedagogical practices.*** As Teacher Green reflected on his pedagogical practices, he recognized a significant change in his thinking regarding his pedagogic practice.

*I have spent a lot of time teaching how to work together. But as I have reflected on how I spent time helping them develop respect and learn to be a community, what I have noticed this year is if you have really good content that is inquiry based, that they work together to help build community. It is not necessary to spend so much time on developing the social part of it – good curriculum helps develop the social part. I will try it differently next year, launch into projects earlier, and see what happens.*

Teacher Green recognized that responsive teaching was teaching focused on the social, emotional well-being of the students at the same time as focusing on quality curricular content, a concept of responsive teaching suggested by Tomlinson and McTighe (2006), featured in Chapter Two. This recognition was a pivotal moment in Teacher Green's pedagogy, precipitated in part by his participation in the research study. It was also an indication that he intended to make a change to his pedagogic practice.

***Ideas about diversity begin to change.*** Time seemed a key factor in the changes associated with changing ideas about diversity and inclusion. As teachers spent additional time with the students, some teachers' views of diversity widened. This new understanding of classroom diversity permeated our discussions and one-on-one interviews during phase two and three of the study. Teacher Blue realized that he had been thinking about inclusion in quite a narrow sense *"I haven't been checking off modified on anyone's report card so it is something I've left out of my plans this year, so far."* Additionally, he commented on the fact that had not paid enough attention to differentiating according to his students' needs.

*I need to do a better job of modifying and/or adapting work so that all my students can get a four (a four is the highest mark). I've started a little bit with essays, with things like that, but there's more, you know, more things like providing a word bank and changing*

*the quantity of work, making assignments for them, you know, a kind of universal design. I did better at that maybe my first two years of teaching; I think I had become complacent because most of my class is fairly high achieving ... it is something I had left out of my plans.*

Teacher Blue identified a problem with his pedagogic practice and decided to make a change in his focus on inclusion.

One of the secondary research question asked if the guiding principles of inclusion in the IPP influenced the teacher's inclusive pedagogy. I did not have enough relevant data to respond to this question. The response I heard from Teacher Green was that the lists were cumbersome, and he thought they should be removed from the IPP and placed in the supporting binder. Additional trials of the IPP are necessary to determine if the guiding principles supported an inclusive pedagogy or served as a distraction.

The second research question regarding the guiding principles of inclusion asked if they led to the teachers removing any barriers to learning. The data did not provide a clear answer to the research question, or the inquiry question: Does planning with the IPP change teachers' thinking and practice regarding inclusion? Teacher Blue indicated he felt challenged to think differently about UDL, but he did not relate this to the guiding principles of inclusion. Again, further use of the IPP is necessary to ascertain the impact of the guiding principles.

### **Discussion Theme One**

This section has described the three main findings that emerged within the theme of *change*. Described at the beginning of the chapter was the idea of openness to change. All four active collaborators were open to new ideas and willing to make changes in their pedagogic practices. A willingness to make changes to pedagogic practices, has already been described as a

key facet to the impact of using a pedagogical planner (Conole, 2013), and as a characteristic of an active collaborator in a CAR study (Borgia & Schuler, 1996).

There was a collective expression regarding the pressures felt teaching the mandated curriculum outcomes. Some of the teachers expressed concerns about the volume of curriculum outcomes; others were concerned with making authentic connections to the outcomes. The general feeling of curriculum overload aligned with the literature presented in Chapter One and Two (NCCA, 2010; Sousa & Tomlinson, 2011)

The new IPP was co-designed to guide and challenge teachers thinking about the choices they made regarding curriculum and the subsequent outcomes. Many of the suggestions, templates, and questions built into the IPP require teachers to use the curriculum documents. Beginning the planning process with the question *why* provides a prompt for teachers to think about what they choose to include or exclude from outcomes. The *why* section of the IPP prompts the teacher to think immediately about the connection of the curriculum with student interest (Tomlinson, 2017). I suspect if teachers worked with the IPP they would become more familiar with and have a greater understanding of curricular outcomes. This could be explored in a future study. The only way to successfully complete a number of templates found in the IPP is to refer to the curricular documents for the outcomes, thus encouraging familiarity with the curriculum. The IPP also guides the integration process of curricular outcomes. A teacher using the new IPP could in reality, reduce some of the daily tension created by the expectation of teaching large amounts of curriculum in a limited amount of time.

Finally, the challenge faced by all the teachers regarding inclusion was depicted clearly in the findings. Initially the teachers did not recognize their classes as diverse, demonstrating a narrow view of inclusion. The teacher's initial thoughts about inclusion and diversity aligned

with conceptualizations presented in the literature. There was an overall agreement with and philosophical belief in inclusion, but teacher comments suggested that moving beyond philosophy to practice was a challenge as per the literature (Black-Hawkins, 2010; Brackenreed, 2011; Ferguson, 2008; Florian, 2008; Forlin, 2012; Horne & Timmons, 2009; Lancaster & Bain, 2010; McLeskey & Waldron, 2002).

The challenge seemed more heightened for the newer teachers in the group, but even one of the more experienced teachers seemed to lack confidence in addressing student needs. A finding that is concordant with the research of Specht (2016). However, none of the teachers could clearly define UDL and DI, the two main suggestions for Inclusion promoted by MET. This was a little alarming as all four teachers in the study considered themselves inclusive educators, yet their responses to my questions did not demonstrate they knew how to implement an inclusive pedagogical practice. This finding aligned with the current literature (Hargreaves & Shirley, 2011; Schumm, & Vaughn, 1995; Spillane, Reiser, & Reimer, 2002; Tomlinson, Callahan, Tomchin, Eiss, 1997; Tomlinson & Imbeua, 2010).

As already stated it was a surprise that the teachers did not describe their classrooms as diverse. Tomlinson and McTighe (2006) wrote, "... human beings are varied and complex. The varieties and complexities demand every bit as much study from the teacher as does curriculum content. Failure to attend to that requirement is likely to result in failure of the teaching enterprise for many, if not all, students" (p. 12). Diversity needs to be recognized first in order for a teacher to use an inclusive pedagogical approach. "The visible effects on practice then depend on the degree to which the special needs group is strongly or weakly defined ..." (Kershner, 2006).

One possible reason for the teacher's response may have been the timing of the question. The question was raised near the beginning of the school year when the teachers had not spent a significant amount of time with their students. Thus, their understanding of the various needs in the classroom may not have been clearly defined. However, as the teachers recognized and understood the various needs in their classes, they made changes in their pedagogical practices. This was an example of responsive teaching (Fletcher-Wood, 2018; Tomlinson & McTighe, 2006). Recognition of varied levels of readiness is a key tenet of using DI (Sousa & Tomlinson, 2011).

The new IPP was developed for teachers. It helps guide and inform both the development and strengthening of an inclusive pedagogy. The main premise of the new IPP is to support teachers as they focus first on their students and their varied needs, using the lens of inclusion. The IPP then guides teachers through the planning process as they remain focused on student readiness, interest, and learning profile (Sousa & Tomlinson, 2017).

The findings associated with theme one demonstrated the need for a new IPP. Teachers with varying degrees of experience who have unique pre-existing ideas can use the IPP. The IPP was co-designed to support, guide, and enhance teachers' inclusive pedagogic practices at any stage in their career. As they continue to use the IPP, their view of inclusion may broaden leading to a stronger inclusive pedagogical practice. A change in a teacher's inclusive pedagogic practice may have a positive impact on the classroom community.

I did find it interesting that all four teachers contributed practical, relevant, creative ideas to the co-development of the new IPP. They clearly understood how to develop a plan that was student centred, cohesive, and structured. Yet, several of them struggled with their own planning process. Teacher Purple who identified herself as unorganized, unfamiliar with the curriculum,

and indicated she needed to spend more time planning, contributed some of the best ideas in our group discussions. In the end, she was the only person who did not use the new IPP. Teacher Blue had the most structured approach to planning. He established clear goals for his units and had a well-established plan to follow. He was also the teacher who made the best use of the new IPP. I was left wondering if this was due to his experience as a teacher compared to Teacher Purple, or if it was their personality? I did not resolve this in my own mind. I thought this could be an interesting research question.

### **Theme Two: Community**

The second major theme that emerged during the data analysis was community. Each class belonged to numerous communities. At times, the communities seemed to complement each other and during others they seemed to compete with each another. Within the main theme of community, the following subthemes emerged: (a) a place to belong, (b) a democratic classroom, and (c) teacher influence on the classroom community.

**A place to belong.** The importance of creating a culture of belonging and acceptance in the classroom is a recurrent theme in current literature (Berry, 2006; Brownlie & King, 2011; Florian, 2007; Hattie, 2012; Tomlinson & McTighe, 2006). Each of the teachers considered their classroom a community and aspired for their students to have a sense of belonging. All four echoed the following views:

*Teacher Green: I really try to focus on the classroom as a whole and the classroom climate, building the community of the classroom. I have spent a lot of time so far this year just building the classroom community; that has been my main focus.*

*Anonymous: It is important to me that everyone feels like they have a place in my classroom and our school.*

Creating a place where everyone belonged demonstrated the teachers' concern about the social and emotional needs of the students. The teachers described thinking of the class as a family and tried to convey the message "we are all in this together."

It seemed that the teachers were really talking about creating an inclusive classroom. I asked the teachers what they did to create an inclusive classroom community. The following were responses from the anonymous online teacher survey:

*I create an inclusive environment by listening to students. I value their input and believe that it is very important for a healthy classroom environment. We do a great deal of group work in the class, and we create opportunities for everyone to demonstrate their strengths.*

*It's a message I reinforce verbally and in actions all the time, from the very first day. We do a lot of scenarios and games that require group work so that students can learn about what works and what might make someone disinclined to participate. I try to teach everyone to be inclusive. For example, if someone complains that their partner is not doing anything, I dig deeper with them to find ways for them to help their partner identify a role and feel valued in that role. A smaller example of reinforcing would be the way I insist that our meetings in a circle do not leave anyone sitting outside of the circle.*

*I think building the classroom community has a lot to do with it: identifying at the beginning that everyone is unique and different in their own way and to embracing*

*those differences. This particular class has been a bit more of a struggle in terms of creating an inclusive environment, but we have class conversations and individual reminders that everyone's needs are different, and we have to accept that and help others feel comfortable, happy, and successful in this class.*

Again, at the end of March, I asked the teachers to talk about whether they thought everyone felt included in their classroom. Teacher Red responded, “*I think so, everyone does (feel included),*” Teacher Green added,

*Yes, the classroom feels more composed; you saw a really loud day, it gets a little frayed some days, but in general people can focus on their work and help each other. They are working together to better those things I have really focused on, getting them to work better together, and that seems to be working and feels good. I see people including everyone more and being more aware of each other, being kinder to one another, and dealing with interpersonal conflict in healthier ways. All of that has improved.*

**A Democratic Classroom.** Creating a democratic environment was demonstrated by the teachers in many different ways. Teachers encouraged the students to choose (a) groups to work in, (b) partners to work with, (c) topics to research, (d) how they would demonstrate their learning, (e) which book to read for literature circles, and (f) where to work. The teachers also included the students in (a) fundraising plans, (b) Grade 8 graduation plans, (c) ideas for spirit week, (d) leading activity break groups, and (e) the daily schedule.

For example, Teacher Blue gave the students a choice in responding to a lesson on gender. Teacher Blue instructed the students to:

*Choose one of the three examples on the board and write a one-page letter as a response. If you were Chris Voth, what would your letter to your parent's sound like if you were*

*telling them, "You are gay?" Or, you just heard a boy in the class say, "You throw like a girl." How would you respond to the boy?*

Giving students some control over their learning was a further demonstration of creating a democratic classroom (Dewey, 1916/2005; Morrison, 2008).

Additional examples were shared by the teachers. Teacher Purple talked about using a strategy called Genius Hour (see <http://www.geniushour.com>) that allowed each student to choose a topic they were interested in to research. Teacher Red shared a similar example of how her *"students worked on an exploratory project, a project of their choice."* Allowing for and encouraging student voice and choice gave teachers a way to recognize the students as partners in the classroom and the learning process. By doing so, they affirmed they considered the class a community of learners who had a say in the learning process and perpetuated a sense of belonging. Developing positive relationship with students is an important aspect of learning. Students who feel their teacher cares about them as an individual and about their interests, tend to be more engaged, which can impact academic achievement (Klem, & Connell, 2014; Hattie, 2012; Tomlinson & McTighe, 2006).

Teacher Green told me how a discussion we had as a group resulted in a democratic decision in his class. During my initial interview with the teachers they all indicated they had English Language Learners in their classes. In several of the classes I often heard the teacher remind students to speak in English. I wondered if there was a school-wide policy on speaking English in the classroom. I also wondered what impact more than one language had on creating a sense of community in the classroom, so I asked the teachers during a group discussion. The following are excerpts from the transcript of the discussion (the letter T represents a teacher, and A represents me:

A: Is that a rule that English should be used?

T: It is encouraged and has been at the schools I have been in. You don't want people to be left out, and you want to know what they are saying, so if they are speaking in their first language, we are encouraging practice in English at school.

A: What about in a group?

T: Yes, I intervene then. If it is a class discussion or group work, I expect them to speak in a language everyone understands. Socially or helping each other with something, I haven't worried about it.

T: Yes, I expect that they all speak in a common language.

T: I don't want to stop them because I think they are proud of their own language. But if they are in a group where someone does not understand what they are saying, they need to speak in English.

Teacher Green decided to discuss the use of multiple languages spoken in the classroom with his students. He conveyed,

*I have never enforced it (English) and definitively people speak their own language to each other regularly, it has never bothered me. I figure it is probably the most efficient way for them to communicate with each other, so go for it. However, this morning when my students came in, one of them said, "Stop swearing." I said thank you because I didn't know they were swearing or saying something inappropriate. So that has been a problem if they are speaking inappropriately, so it is hard to know how to address that. I don't want to have a classroom where I tell them not to speak their own language, but then I realized it was excluding people. Their parents went to extreme lengths to bring*

*them to Canada, and they are not going to function in Canada without knowing the language here.*

Teacher Green explained that after the class discussion the students suggested they hold a debate on the topic. He encouraged the idea of a debate, an example of how Teacher Green allowed and encouraged his students to have a voice and choice in the classroom. At the end of the debates the students would have an opportunity to vote for the winning side, promoting democracy in the classroom.

Teacher Green told me the class held two debates (with four different debate teams) randomly chosen by Teacher Green. He shared with me that the class agreed the winner of both debates was the group that argued for an English-language-only classroom, so they agreed, based on the votes, to speak English only. I asked him if he had noticed any changes in the class. He responded, *“After the debate, it has not made a difference. We have talked about it over and over again. I think they are probably sitting around talking about soccer. It is exclusive, though.”*

The challenge Teacher Green faced (i.e., whether to have a mono-lingual or multi-lingual classroom) is an issue that has been raised and debated in the current literature about language use in the classroom environment (Cummins, 2005, 2007; Fielding, 2016; García, Sylvan & Witt, 2011; Paradis, Genesee, & Crago, 2011). Multi-lingual classrooms are becoming more prevalent in Manitoba, so the conjecture could be made that the debate will continue. According to the Manitoba Bureau of Statistics website (see [www.gov.mb.ca](http://www.gov.mb.ca)) the number of new immigrants in Manitoba will continue to grow over the next five years, which means classrooms will continue to become more culturally and linguistically diverse.

**Teacher influence in the classroom community.** The teachers, as already described, came from different backgrounds, had differing degrees of experience, and approached their

classes in a variety of ways. As I became more knowledgeable about each teacher, I recognized their individual personalities and saw how this influenced their pedagogical practice as well as the overall environment in the classroom. In many ways, the classrooms were a reflection of the teachers' personalities. This is consistent with research showing that teachers' personalities have an impact on the classroom environments and the relationships they have with their students (Decker, Dono, & Christensen, 2007; Fisher, & Kent, 1998; Hamre & Pianta, 2006; McCreery, 2016) Each teacher had a unique approach to developing classroom community and building relationships with his or her students.

The teachers were at different stages regarding understanding and responding to the needs of 12, 13, and 14-year olds. Teacher Blue had to remember what was age appropriate (and what wasn't) concerning expectations and even regarding the things discussed in class. He said he was very comfortable talking to the students about any issue they raised.

*Teacher Blue: I need to remember that sometimes school is the last thing on a kids' mind, maybe they didn't have breakfast, or their parents were in a fight or something. I find I am teaching them at a higher level; some of them are at that level, but I find I have to always scale back and be like, okay, they are innocent; they are only 12 or 13. Some teachers wonder, do we talk about marijuana in the class? I think, if you are asking about it, let's talk about it. Yet sometimes at this age, they need to be innocent, not be made aware of whatever it is; it's just a fine line.*

Teacher Blue talked to the students about gay athletes, people's response to gay marriages, corruption in sports, doping in sports, economics, starting a business, movie stars, famous musicians, the election, and healthy choices regarding smoking and eating.

On the other hand, Teacher Purple did not seem as comfortable. During one of our group discussions Teacher Purple asked the others if their students were talking about dating. She divulged that she thought they were too young to discuss dating,

*If I hear it I just tell them I don't want to hear about it right now, you can talk about it later, so I squash it there. I try to keep a close ear on it. I don't think they need to be having these conversations at their age and some of my kids will come and talk to me after school if they are having problems with boys. I tell them the same thing: you don't need to be doing that at your age. Yeah, my class has too many conversations, so I just tell them to move on.*

I thought the second teacher's response to the topic of dating was curious. Shutting the conversation down was a clear communicating that certain topics were "off limits" in the classroom. From Teacher Purple's description it seemed as if the students wanted to hear her thoughts about dating. To me, it was a missed opportunity to have a positive influence in their lives. It also negated the deep understanding of adolescent development promoted in the document *Engaging Middle-Years Students in Learning* (2010) reviewed in Chapter 2.

I found it interesting that in Teacher Blue's class where the students felt free to discuss any topic, they also seemed more capable of generating deep, thick, questions for their inquiry projects. They may have felt more freedom to ask big questions and explore big ideas. Teacher Blue modelled this for them as he discussed big ideas like drugs in sports, gender in the workplace, and homophobia. However, in the class Teacher Purple's class where she was not ready to discuss any topic, she had a more challenging time modelling big questions.

All four teachers developed good rapport with their students and demonstrated a calm, relaxed manner in the classroom. I saw many examples of students receiving positive feedback

from the teachers. Over the time that I was in the school, I rarely heard a teacher raise his or her voice or say anything negative to the students. They all offered many encouraging and supportive words like, *“I like what I am seeing; good ideas; use your time wisely; I was impressed with the number of questions you came up with; that’s okay, sometimes our tongue slips; when you have the answer, give me a thumbs up; and, those were well-done presentations.”* A positive relationship between the teacher and the students can result in higher levels of academic achievement, while a negative relationship can have the opposite effect (Gregory & Weinstein, 2004; Rudasill, Reio, Stipanovic, & Taylor (2010); Wu, Hughes, & Kwok, 2010).

### **Discussion Theme Two**

As unique individuals, each teacher had an impact on his or her classroom environment. All four teachers identified that creating a community within their classroom was of high priority to them. They strived to create environments where all their students felt included and welcomed. Each teacher had a unique approach to developing classroom community that in many ways reflected their unique personalities and teaching styles.

Relationships and relationship building were important to all of the teachers, a notion supported in current literature regarding middle years students (Hattie, 2012; Manitoba Education, 2010; Roorda, Koomin, Split & Ort, 2011). The teachers listened to students' ideas and often implemented them, indicating the teachers respected their students voice and choice and supported a democratic classroom (Dewey, 1916/2005; Morrison, 2008). Encouraging student voice and choice are both key actions suggested by Manitoba Education (2010) as ways to transform middle years classrooms.

I appreciated Teacher Green's approach with his students, raising the point about multiple languages in the classroom. He was curious about what they thought and respected their idea of a debate. He responded to their idea and changed his prepared plans to accommodate two debates. This required some pre-teaching about debates which Teacher Green took time to do. When the debates did not make any change to the use of multiple languages in the class I wondered if it was so late in the school year to change the student's habits, or if it indicated a lack of mutual respect in the classroom. Mutual respect, recognition and celebration of differences are fundamental aspects of inclusion (Brownlie & King, 2011; Noddings, 2003; Thomas & Loxley, 2007). Teacher Green had indicated earlier that creating an inclusive community had been a challenge with his class. I also wondered if his students lacked some of the appropriate social skills that are suggested in current literature for multi-lingual classrooms.

Current literature regarding multi-lingual classrooms suggests that students need to learn new social skills when interacting in multiple languages. For example, Gagné and Parks (2016) suggest teaching students to ask for a "time out" during a group discussion if they want to converse in a different language. A time out allows a student to receive support as they try to understand the content being discussed. It also alerts the rest of the group members that a couple of minutes is needed to consult with another student who speaks their heritage language for clarification of concepts (Cummins, 2005; García, Sylvan and Witt, 2011). I wondered if such a strategy could have worked in Teacher Green's room as a positive approach to the use of multiple languages?

It was interesting to see how different each class was and how the teacher's personality and approach in the classroom influenced the students. Each teacher's beliefs and value system played a role in establishing the environment and expectations within the classrooms (McKown

& Weinstein, 2008; Rubie-Davis, 2010; Rubie-Davies, Hattie, & Hamilton, 2006). Teacher Blue was very open to discussing any topic the students broached. I found it noteworthy that in his class students generated deep, thick questions for their inquiry projects. They felt the freedom to ask big questions and explore big ideas. Teacher Blue modeled this for them as he discussed big ideas like drugs in sports, gender in the workplace, and homophobia. Something as simple as answering questions and being open to the students' ideas affected other aspects of learning. There is research that indicates the quality of the teacher-student relationship in middle-years impacts student achievement (Cornelius-White, 2007; Leary, 2010; McCombs, 2014; Wentzel, 2002).

The theme of community and its subthemes reinforced for me the notion that planning needs to be done holistically and intentionally with a mindset of inclusion and rigour, based on the students' needs and interests. Considering the class as a community of learners, with different approaches to learning, is essential. This emergent theme and its subthemes confirmed for me the need for a new IPP that guides a teacher to planning holistically, connecting to a student's head, heart, and hands.

The IPP was co-developed with the goal of developing a tool that had, at its very foundation, the concept of community and inclusion. The first question teachers are directed to is, who are your community of learners. They are guided to think about their student's prior experiences, interests and passions, learning profile, and their academic and social needs. Teachers are asked to think about their overall classroom profile as suggested by Brownlie & King (2011) in order to gain a "big picture" understanding of the class as a whole. Once a teacher has reflected on their community of learners, the IPP guides the process of connecting

curriculum to the inclusive classroom community. The IPP is community oriented and provokes teachers to plan inclusively, intentionally, holistically and with academic rigour.

### **Theme Three: Expectation versus Reality**

Throughout the ten months spent with the teachers, I heard them express ideas, concerns, and even frustrations concerning some of the seemingly competing expectations they dealt with daily. These competing expectations were in some cases out of their control such as the availability of technological resources, following MET policies and mandates, and school structures. Nonetheless, these competing expectations created tension and challenges for the teachers as they were often unable to solve the dilemma faced between expectation and reality. Two subthemes emerged within the main theme of expectation versus reality: (a) scavenging for technology, (b) working within reality.

During my initial interviews with the teachers they indicated they understood MET's general expectation of middle-years teachers to infuse Information and Communication Technology (ICT) across the curriculum. Literacy with ICT is described by MET as students choosing and using ICT, responsibly and ethically, to support critical and creative thinking about information and communication as citizens of the global community. Literacy with ICT was the basis for infusion of ICT across Manitoba curriculum (Province of Manitoba, 2017g). Lack of available and usable technology resulted in all four teachers not meeting the expectations of MET, thus creating tension and challenges. Technology and its use became a prominent point of discussion amongst the Grade 7/8 teachers.

**Scavenging for technology.** Each of the Grade 7/8 classrooms was equipped with four to six desktop computers. The school library had a bank of 15 desktop computers as well as one printer that serviced the whole school. There was a mobile cart with a "class set" of Mac laptops

and a second cart that housed a "class set" of iPad's. In both carts, a class set meant 20. Three classrooms had projectors and screens, one classroom had an older SMART board, and one teacher had access to a mobile screen and projector.

The teachers had fairly similar ideas about the technology within the school. Teacher Purple shared, *"The one complaint I always get from my students is that the school does not have enough technology for them to use."* Teacher Blue stated, and the others echoed, *"I think it (technology) is more challenging than it needs to be (in our school). It shouldn't be that hard to get access to a computer. Our system is bizarre."* Teacher Green summed up the general feeling towards technology, *"all the time we are scavenging for computer time."* I asked Teacher Green to describe this further.

*When my students need to be on the computer, I just tell them to go and find a computer somewhere in the school. We all try to share the computers we have in our classes, so if I have computers not being used and students come from another Grade 7/8 class come to my class, I let them use the computers.*

Teacher Blue added, *"It is not ideal when they have scattered around. They know they have to get work done, but it is hard to monitor."*

I wondered how the teachers monitored what the students were doing when they were in various parts of the building. During a group discussion about technology Teacher Purple stated: *I don't have a solution for students working on something they shouldn't be. You figure it out when you have a checkpoint and can see if the students have been working or not. You can't be two places at the same time, so we have to trust them to a certain extent, but we know very well that some of them are wasting time.*

To this Teacher Green added:

*The students are not able to regulate themselves and use technology efficiently, especially when they were scattered around the building. So, I begin to wonder if I should choose assignments that do not involve technology. We want to be progressive in our uses of technology, but it is such a pain to use it, and it becomes so much more work.*

Considering assignments that did not rely on technology seemed a drastic suggestion but was indicative of the level of frustration technology had become. All four teachers acknowledged they did not have a solution to the students being scattered around the building or scavenging for computers.

An added frustration for all the teachers was the number of computers in the library that were often unavailable. As previously described, the school library housed the largest bank of desktop computers, which often made them inaccessible for much of the day. Teacher Green explained:

*For example, when the librarian is busy reading students a book, you cannot send kids to the library to work. Every 40 minutes she has a new class in there, so no one can use the biggest bank of computers in the school. Having the computers in the library is not ideal.*

Several times during my class visits a teacher had plans to use the computers in the library. On one occasion the library computers were unavailable for the rest of the day. Teacher Green commented, “*We are in a pickle because there are so few computers today, who is behind on their timeline?*” He then assigned classroom computers to the students most behind on their work. The teachers wanted to be responsive to their students’ interests in using technology, but they felt the lack of accessibility and availability restricted them.

They also felt they could not resolve this issue by themselves, it needed to be addressed

school wide. In hopes of making a change to the situation Teacher Purple told the group she had joined the technology team in the school. She often asked the Grade 7/8 teachers for their feedback and ideas, so she could voice them at her technology team meetings.

*iPad's, an epic waste of time.* Another example of inaccessible technology was the iPad and Mac laptop carts. As previously identified, the school had a Mac laptop cart and an iPad cart. During my teacher observations, I noticed the Grade 7/8 teachers rarely used the iPad's and laptops and wondered why. Until one afternoon when I observed Teacher Purple's experience trying to access the iPads. The iPad cart was rolled into Teacher Purple's class and she tried to open the combination lock. After several attempts, the Teacher Purple looked at me and said, "Someone changed the combination." She teacher left the room to see if anyone in the office had the combination, but they did not. When Teacher Purple returned to the class she said to me, "This is why I don't try and use the iPads, it is so frustrating." The cart was wheeled back to its space.

After this observation, I asked the other teachers about their experiences with the iPads and laptops. I received some concise answers.

Teacher Blue: *The iPads are an epic waste of time, so we don't use them. I tried once and never used them again.*

Teacher Green: *Kids are always losing what they do on the Macs. Lately, we have been using them, but they are very unreliable, so we have not used them often. I can't see why there is so much difficulty saving files. I tried the iPads once and never wanted to use them again. We have a great tool, but it is so cut off from the rest of our system that we can't use it.*

Teacher Red: *We don't use the iPads because the Internet doesn't work, and they aren't always charged correctly. The students complain because the Internet is working, and then it's not. The battery is charged, and then it's not.*

The Macs and iPads were an example of technology available in the school but not very accessible or useable to the Grade 7/8 classrooms. The teachers' bad experiences with technology early in the school year resulted in frustration and little-continued use of it. Teacher Blue stated, *"It is frustrating when we have to lug in this cart and tell the students here is our technology, then half of them don't work."* The reality of trying to use resources that had limited usability, created a situation where the teachers could not meet MET's expectation of infusing technology across the curriculum.

The frustrations expressed by the four teachers echoed the struggles illustrated in relevant literature. The common barriers reported to the successful use of computers in schools were, a) limited access to technology (Hew & Brush, 2007; Kopcha, 2012; Mumtaz, 2000; Wood, Mueller, Willoughby, Specht, & Deyoung, 2005), b) technical problems (Butler & Sellbom, 2002), c) software and hardware malfunctions (Butler & Sellbom, 2002; Ertmer, 1999; Wood, Mueller, Willoughby, Specht, & Deyoung, 2005), d) time spent troubleshooting (Mumtaz, 2000), e) unsuccessful experiences (Ertmer, 1999; Liu, 2011; Palak & Walls, 2009) and, h) personal knowledge and training (Butler & Sellbom, 2002; Ertmer, Ottenbreit-Leftwich, Sadik, Sendurur, & Sendurur, 2012; Hew & Brush, 2007; Kopcha, 2012; O'Mahony, 2003). Collectively, the teachers in the study had faced each of these barriers to infusing technology according to MET's expectations.

At the end of the year, I asked the teachers if they thought they could teach more curricular content if the students spent less time scavenging for computers. It was my assumption

that the answer would be yes. However, Teacher Green challenged my thinking when he replied:

*I am curious about the productivity time. It would be great to see a study comparing productivity on a computer compared to productivity with books and sitting at desks. I bet they would be comparative. I don't think kids would do more work either way.*

He may have been right in his assessment.

**Working Within Reality.** Although frustrated by the lack of technological resources, the teachers demonstrated perseverance as they worked within the reality of their school setting. For example, the teachers used YouTube in several creative ways. Teacher Green explained that he had assigned a question requiring students to find a YouTube video that helped provide an answer to a question. *“I wanted them to know there was something beyond basketball highlights on YouTube.”* Teachers Purple and Blue used YouTube videos, to help students use their critical thinking skills. This was an example of how their pedagogical beliefs about the benefits of using technology were important enough to overcome some of the barriers they faced as their students accessed technology. Within the literature on technology use in schools, value a teacher places on using technology seems to impact how and when it is used in the classroom (Keengwe & Onchwari, 2008; Tondeur; van Braak, Ertmer, Ottenbreit-Leftwich, 2017; Wood, Mueller, Willoughby, Specht, & Deyoung, 2005)

Teacher Purple played two music videos for her class, the “Eye of the Tiger” and “I’m Not Down.” She told the students,

*Today we are going to look at two songs that have the theme of survival. Listen first, then see the lyrics. You guys will compare and contrast the themes of the two songs. I will play them again, read along with the lyrics, and pick out sections that are talking about survival. We are meshing our themes of refugees and surviving. There are different ways*

*to survive: relationships, and schools, on the streets. It doesn't have to be surviving a plane crash. I will play them again. Read along with the lyrics and pick out sections of the lyrics that are talking about survival. This is like the time we highlighted sections of the civil war song.*

Teacher Blue likewise used YouTube as he began an inquiry unit on the 2016 Euro Cup soccer championship in France. Teacher Blue played a YouTube video that showed clips of the different soccer teams playing while the theme song for the Euro Cup played. The following directions were given to the students:

*While you are listening today think about and jot down what emotions you feel, what events in your own life does it make you think about, do the lyrics tell a story, listen for and identify different instruments you hear, and identify which lyrics stand out for you. I will play the song twice.*

Teacher Blue then replayed the video and told the students, “*You should have four or five lyrics written down.*” Teacher Blue explained that the writer of the song was someone named David Guetta, “*the biggest D.J. in the world.*” During the last few minutes of class, he played a couple of other music videos by Guetta for the students.

The teachers used YouTube as a teaching tool in a way that resonated with middle-years students. The teachers’ use of YouTube was an illustration of how they moved beyond their frustrations with technology and tried to infuse it into the curriculum. YouTube is becoming more common place in the classroom today and is being used in innovative ways (Bloom, 2009; Jones & Cuthrell, 2011; Prensky, 2010), similar to those that I observed. Jones and Cuthrell (2011) promote YouTube as a “tool to inform and display and as a forum for critical analysis and commentary” (p. 76).

An additional reality the teachers faced in using technology was teaching the appropriate use of Google. All four teachers agreed with Gilbert's (2011) assertion that many post-millennials, such as the Grade 7/8 students, considered Google their primary source of knowledge. They discussed that Google was the first-place students looked for ideas and answers and had shared their mixed feelings about it. Teacher Blue suggested that keeping ahead of what students googled was important, but sometimes a challenge, because the students knew about many different sites.

He teacher described a situation where students tried to use a website called debates.org to find ideas for the debates they were preparing. Teacher Blue told me that students could just type a debate topic on the debate.org search bar and find responses for and against a particular topic. Knowing about this site, he said he told his students not to use it, *“but come up with their own ideas.”* Teacher Green added, *“To me, a big question cannot be googled. Googling things prevent the use of higher order thinking skills; it does not make them think for themselves.”* Previously in the chapter I described how Teacher Green addressed his students use of Google images for research. An additional example of working within the reality of how his students used technology.

I was interested to observe the ways the teachers worked within the tension of expectation versus reality when it came to technology use. Even though they expressed their frustration to each other, and me, they did not portray a negative attitude to their students. Lack of available and usable technology was a tension that teachers had very little control over. Even though they wished for better access to reliable technology, the reality was they had to work with what they had. In many instances, as the ones presented, the teachers worked creatively within the reality of the technology they were able to use.

### Discussion Theme Three

Working in an environment with constant tension between expectations and reality is challenging. The teachers expressed their feelings about the challenges they faced with technology, eloquently and honestly. Amidst these challenges, the teachers found some creative ways to manage the lack of useable technology.

One approach that may have reduced some of the frustration felt by the teachers, as well as enhanced the efficiency of time on the computers, was collaboration. The teachers had time together every day six: so, through a discussion, they could have coordinated the use of the computers in the classrooms better. I also wondered if they had collaborated with each other to determine when research-focused projects were scheduled, could they have identified when the laptops or library computers were needed for each class? A reduction of time students spent scavenging for computers may have occurred through collaboration, as teachers would know when and where computers were open and available for use. The teachers all agreed that less time looking for computer space meant more time spent in the classroom. Some pre-planning could lead to more predictable access to technology. An idea supported in the literature by Gülbahar (2007) and others (Fishman & Zhang, 2003; Norris, Sullivan, Poirot, & Solloway, 2003) who promote creating a plan for technology use that could provide reliable and predictable access for each class. Gülbahar (2007) suggested:

Efficient and effective use of technology depends on the *equity of access to resources* by teachers, students and administrative staff. Therefore, all ... should have the opportunity to access all the technological resources needed whenever they want. Students should be provided with opportunities like computer laboratory and flexible study environments for individual and group work in out-of-class sessions (p. 952).

Teachers today, are expected to play an important role in our technological world as they endeavour to,

...help students sift through and sort out good knowledge from bad ... [teach them] how to use it, to apply it, to synthesize it, to be creative with it, to add to it even, to know which bits to use and when and how to use them and to know how to remember key parts of it. Add to that [the] powerful role in helping [students] develop their communication skills, their curiosity, their ability to work well as a team, their confidence and self-esteem, their sense of what is wrong and what is right, their ability to deal with adversity, their understanding of their role as a citizen of the world – in other words all the things computers can't ... (Gilbert, 2011, p. 24).

As I contemplated how the emergent theme regarding technology connected to the IPP, my initial thoughts were that the ongoing challenges associated with technology were beyond the scope of the new IPP. As I reflected on the fact that technology was one of the points initially included in the four big ideas (Table 1), I concluded we could have considered technology as we developed the IPP. Therefore, Additional resources could be added to the supporting binder regarding use of technology in the classroom.

Technology affected every aspect of a teacher's plan for their students. Teachers needed to examine whether the technology was going to be available, whether it was going to work, and whether the students knew how to access the information they needed. Planning collaboratively with technology in mind could encourage teachers to be more intentional about its use which may result in a positive impact on student outcomes and progress (Killion, 2015; Vangrieken, Dochy, Raes & Kyndt, 2015).

## Chapter Summary

In this chapter, I have presented the three emergent themes using vivid, detailed, descriptions of the data. I included many of the active collaborators narrative accounts supported by my field notes, meeting minutes, and teacher observations. Synthesizing the key lessons derived from the themes is one word, intentionality.

As the study began the teachers expressed openness to growth and change, but growth and change required action. I discovered that collaborative action required intentionality. We needed to be intentional about our meetings, discussions, the schedule, and about data collection.

Early in the study the teachers described themselves as inclusive yet did not recognize the level of diversity within their classes. During my teacher observations, I noticed that the less diversity was recognized, the less intentional the teachers were about using an inclusive pedagogic practice. Once diversity was recognized, some of the teachers focused more intentionally on DI and UDL strategies. For example, Teacher Green was intentional in teaching his students how to research a topic on the Internet. Likewise, Teacher Blue was intentional in teaching his students how to use their higher order thinking skills, and Teacher Purple was intentional about teaching reading comprehension.

Next, as the teachers planned for their classes they tried to be intentional about their choice of curricular outcomes, instructional strategies, and assessments. Their levels of intention varied, and in some cases they were quite haphazard, but they were able to describe their intentions to me when I asked them about the winter and spring terms. When a teacher was unclear about the intention of a particular unit, such as Teacher Purple's inquiry unit, they struggled with all aspects of teaching the unit. This often resulted in a lack of clarity for the students as well.

The teachers demonstrated on many occasions their genuine interest and concern for their students as people, and as learners. They desired to have a positive working relationship with the students in their own classroom community, as well as the broader Grade 7/8 community. They worked at relationship building with intent, for example, the grade 7/8 rotation mornings. The teacher decided collectively they wanted to know all the Grade 7/8 students better, so devised a way to accomplish their goal.

Each of the teachers made a point of listening to their students and encouraged their students' voices in the classroom. For example, Teacher Red often allowed the students to choose a topic for research, novel to read, and where to sit in the classroom. Teacher Blue knew his students were interested in sports so planned the inquiry unit around the Euro cup. Teacher Green encouraged a debate his students suggested, and Teacher Purple incorporated Genius Hour that gave students the opportunity to research a topic of their choosing. All of these examples and the others described in the findings demonstrate teacher intent to develop a positive community environment.

The teachers were intentional about many aspects of their day therefore; it was interesting that they were not intentional about the use of technology. As already suggested, intentionality about the use of the available technology may have reduced some of the tension for the teachers. It seemed like the teachers just accepted the fact that using technology was frustrating and was going to remain that way, so they did not discuss ways of relieving the tension.

We co-designed the new IPP to help teachers be intentional about their pedagogic practice. The IPP guides teachers towards an inclusive pedagogy with the lens of inclusion. It also guides the choice of curricular outcomes, instructional strategies, and assessments. We co-developed templates within the IPP that challenge teachers to intentionally keep track of their

pedagogic choices, and to think about why they make certain choices. The new IPP also challenges teachers to focus, with intent, on their students' experiences, interests, and academic abilities.

## Chapter Six

### Summary, Limitations, Recommendations, and Conclusions

At the onset of this study, I argued the disciplines of curriculum and special education have been molded and formed by separate groups of policy makers and specialists. Teachers face the daily challenge of integrating their different policies and decisions into one cohesive, inclusive pedagogical practice. A review of the current literature revealed that a holistic, practical tool focused on the integration of teaching curricular outcomes with an inclusive pedagogical practice was not available, leading to the co-development of a new IPP.

To create the opportunity for classroom teachers' voices to be included, I selected and utilized collaborative action research as the methodology for this study. I developed research and inquiry questions, recruited active collaborators, collected, and analyzed data. The analysis of the data revealed some key findings and meaningful answers to several of the questions posed in Chapter One. In this Chapter, I provide answers to the questions informed by the data, followed by a presentation of the strengths, challenges, and limitations of this study followed by implications for future practice and research. The Chapter ends with concluding comments.

### Strengths and Challenges

As I reflected on the choice of CAR as the research methodology, and its strengths and challenges, the idea of a dance came to mind. The last ten months have felt very much like a dance. As the five of us navigated schedules, meetings, discussions, and communication it has required movement back and forth, and flexibility. At times, I stepped forward and led, but I also tried to step back and let the active collaborators take the lead as I followed. Knowing when to lead and when to follow has been real and sometimes a challenge.

As relationships developed the ability to anticipate each other's moves was strengthened.

During the “dance” I assumed the role of leader, follower, coach, prompter, observer, participant, interviewer, note-taker, interpreter, collaborator, and guide. I became a bricoleur constructing a “quiltlike bricolage” (Denzin & Lincoln 2000, p. 6) as I analyzed, interpreted, and made sense of the data. The active collaborators assumed similar roles as leaders, followers, observers, participants, collaborators, interviewees, teachers, and guides. The result of our ten-month dance, was a new IPP we were all proud of that added something new to the literature on inclusive pedagogical practice.

The experiences of the group are unique to the group because of its naturalistic orientation. The teachers indicated they had gained new knowledge, reflected on their pedagogic practice, and been challenged to think more holistically about inclusion. We successfully developed a new IPP. The new IPP exceeded any expectations or ideas I had about the outcome at the beginning of the study. There is potential to refine the new IPP and conduct additional research on it. The new IPP co-developed during the study has the potential to support and challenge both new and experienced teachers as they develop their inclusive pedagogical practice.

Adopting a CAR methodology allowed the teachers to be the experts in the collaborative process of designing the new IPP. The IPP is a tool created by classroom teachers, for classroom teachers. However, CAR is not without its challenges. Pine (2009) cautioned “knowledge ... developed through relationships with others” (p. 118) could create a level of unpredictability for a researcher using a collaborative action research methodology. I faced some unpredictable circumstances during the ten months I was in the school.

**Unpredictable circumstances.** Data collection was an unpredictable circumstance at the beginning of the study. The study began with a clear set of data collection strategies as seen in

Chapter Three. Through semi-structured interviews with the teachers, group discussions, teacher observations, personal field notes, an online survey, emails, and ongoing dialogue, I collected data for this study. The data set was large and provided many rich, thick descriptions as seen in Chapter Five. Yet, I was unable to complete some of the data collection due to various challenges and unpredictable circumstances that arose.

For example, the change to the dates of the final observation block was unpredictable and disruptive to the final data collection. There were numerous interruptions and modifications to the observation schedule during May and June. The changes were mainly due to the teacher's involvement in various school and divisional activities. It was also the time of year that their classes participated in field trips and made plans for a Grade 8 farewell.

I had not predicted how hard it would be to build in time for group and individual reflection throughout the study. I was surprised at the initial reaction of all the teachers towards keeping a journal. The quick writes and group discussions did not replace the reflective process envisioned in a collaborative action research study.

Many of the unpredictable circumstances encountered were just a natural part of being in a typical school environment. Some were common to collaborative action research. Most of the events described did not affect the co-development and implementation of the IPP. Nonetheless, some of the unpredictable circumstances became limitations to the study.

Identifying limitations to a study is a significant step taken by a researcher before reaching any conclusions. McMillan (2008) suggested identifying limitations helps the reader understand what he called "population validity" and "ecological validity." These limitations cover areas of the study such as participants and context that may influence the transferability of

the IPP. The other area of limitations McMillan suggested identifying were those associated with the methodology and subsequent design of the study.

### **Limitations**

**Population Validity.** By design, the group of teachers recruited for this study was small. Their cultural heritage was diverse, teaching experience varied, and educational backgrounds differed. The size of the group and the fact that they all taught the same grades was a limitation to this study

**Transferability.** Transferability is "achieved when readers feel as though the story of the research overlaps with their situation, and they intuitively transfer the research to their own action" (Tracy, 2010, p. 845). Readers of this study may make connections with their situation and transfer some of the findings possibly resulting in changes to pedagogical practices. As already stated, the study took place in a particular place and time. The thick, rich descriptions based on the experiences of four teachers. The uniqueness of the natural setting and the people involved supposes limitations to transferability.

**Ecological Validity.** An ecological limitation of the study was the timing of the third phase. Introducing the IPP in the final term of the school year was not ideal. Starting an inquiry project at the end of April or beginning of May proved to be a challenge for two of the teachers in particular. Teacher Purple and Green were unable to complete the inquiry unit before school ended. In Teacher Purple's class, I was not able to start my teacher observations until the middle of May (as she was not prepared for the inquiry unit), so I often had to fit two, and sometimes three, teacher observations into one week. Conducting these observations in a condensed period limited the kind of data I hoped to gather about the progress of the inquiry unit.

**Design Limitations.** The use of a collaborative action research methodology engaged the active collaborators in the co-development of the new IPP. Being actively involved in the co-development and subsequent implementation of a the IPP, created the opportunity for change in the active collaborators pedagogic practice. The active collaborators were encouraged to act upon new practical knowledge gained during the co-development phase of the study (Reason, 1998). CAR is designed to create an iterative cycle, of the four ways of knowing (experiential, presentational, propositional, and practical) suggested by Heron & Reason (1997). The purpose of activating and engaging the four ways of knowing is to create space for the co-construction of new knowledge, followed by the implementation of the new knowledge, which may result in change. Thus, it was not surprising the theme of *Change* emerged from the data. The choice of a circulatory methodology, created a design limitation in this study.

### **Future Research Suggestions**

We considered the new IPP to be valuable and usable in its current form. At the onset of the development process, the teachers had some great ideas about making connections between the six sections of the IPP. We did not have time to explore these ideas further and add them to the IPP. For example, the teachers thought we could add suggestions like: “If you choose this instructional strategy, then use this assessment of learning.” Cross-connections would be a helpful addition to the IPP in future iterations.

My collaborative research partners and I successfully developed a new IPP. The collaborative process enriched the outcome of the study, the new IPP. The teachers implemented the IPP, but due to some of the limitations discussed, we were not able to conduct a full-scale implementation and evaluation of the IPP. Therefore, I recommend further research allowing a full-scale implementation of the IPP followed by additional critical evaluation and possible

revisions. The collaborative nature of this study will continue to be a key component of any additional research. As further iterations of implementation, collaboration, and revision continue, teachers need to be actively involved in the process. The IPP needs to be a practical usable tool designed by teachers, for teachers.

There are several additional options for further research. As already indicated, comprehensive answers to some of the original secondary research, questions did not emerge during the study. Endeavoring to find answers to the questions is one possibility. For example, to further determine teachers' levels of success integrating curriculum and inclusion with the IPP, a researcher could conduct a study involving a greater number of active collaborators. A larger number of active collaborators would allow for greater diversity in terms of professional experience and grade levels taught. This approach would involve a more significant implementation and targeted evaluation of the IPP. A variety of instructional strategies could be used to determine if the IPP does support numerous approaches to teaching. The data collected could assist in assessing how practical and useful the IPP is to teachers in all stages of their career and across all grade levels. Establishing concrete criteria of "success" should happen in collaboration with the teachers before the implementation of the IPP.

Since a working copy of the IPP is already developed, a new study could attempt to collect data to compare and contrast over two school terms as I hoped to do during this study. During the second term the teachers could use Guided Inquiry as their instructional strategy. The researcher could complete interviews, observations, and data collection during the fall term as the active collaborators planned and taught in their typical manner. Teachers could then implement the IPP during the winter term and the exact same data collected. A new study could prove to be beneficial to answering some of the secondary questions that were unanswered in

this study. After implementation of the IPP, a secondary critical appraisal of it should take place and revisions made. Using focus groups for the critical appraisal and revision stage would provide the opportunity for collaboration within a broader community. Additionally, a future study could incorporate more feedback from the students by using focus groups.

In the future, it would be interesting to pursue the suggestion of the active collaborators in this study regarding cross-connections within the IPP. A group of experienced teachers from each of the three main grade level groups (i.e., early-years, middle-years, and senior-years) could analyze the IPP looking for cross-connections. For example, perhaps there are particular forms of assessment that work well with particular demonstrations of learning, or they may be certain curricular outcomes that are easy to integrate with others. The first group of teachers would collaboratively update the IPP (with the research facilitator) with these connections and possibly, with other learning resources they have found helpful. A second group of teachers could then implement the IPP. A critical appraisal and opportunity for revisions could follow the implementation phase.

**Other future considerations.** Even though the IPP is valuable and usable in its current form, teachers may gain more from using the IPP if given the opportunity to attend a professional development (PD) session. During a PD session, teachers could develop an inclusive unit plan with guidance and in collaboration with other teachers, using the new IPP. After teachers have completed one-unit plan and understand how the sections of the IPP work together, they could continue using the IPP with confidence on their own.

Pursuing the development of the IPP in a digital format is something I am considering. Developing a digital format could eliminate the need for two binders. A digital format could be explored using a wiki space (see <http://www.wikispaces.com>) or a website that provides direct

links to resources. Online links to web pages are easy to update (providing adequate human resources are available) so that current information is always available.

### **Recommendations**

As I reflected on the new IPP and its future use, I envision the IPP becoming an important component of Bachelor of Education programs. As already indicated, research has shown that teacher candidates also lack confidence in their ability to develop and use an inclusive pedagogical practice (Specht, 2016). Specht (2016) also discerned that teachers “are more willing to adopt inclusive pedagogical practices ... when they are comfortable with the use of appropriate pedagogy” (p. 894). Therefore, if a tool such as the IPP was introduced to teacher candidates early in their program they could have several opportunities to develop comprehensive unit plans using a lens of inclusion. They could also have more opportunities to adopt an inclusive pedagogic practice allowing them to become more comfortable with its practical application.

Additionally, Faculties of Education could support teacher candidates in developing a holistic approach to planning by encouraging cooperation, and collaboration, between the separate departments of curriculum and special education. All instructional plans that Bachelor of Education students are encouraged to develop should include a focus on inclusive strategies like DI and UDL. During 2005, the Public Schools Act of Manitoba was amended requiring the use of DI by all teachers (see <http://www.gov.mb.ca>). Therefore, all teacher candidates should be taught effective DI strategies. MET also promotes the use of UDL strategies in Manitoba classrooms. Using a planning tool like the new IPP guides and supports teacher candidates as they begin to implement DI and UDL.

The amendment to the Public Schools act placed heightened responsibility on school principals to ensure that strategies such as DI were being utilized by classroom teachers. It is imperative that school leaders, such as principals, have a keen understanding about developing an inclusive pedagogy so they can support the teachers in their schools. Allowing teachers time to collaborate and reflect on their inclusive pedagogic practice, as the teachers had opportunity to during this study, is one form of support they could offer. Principals could also encourage the use of a practical planning tool like the new IPP to new teachers, and to teachers who are mentoring new teachers, who are in the process of developing their inclusive pedagogic practice.

### **Concluding Comments**

The four teachers and I set out to develop a new IPP based on the ideas of Conole (2013). Our goal was to design a tool that supported and guided teachers through the planning process using an inclusive pedagogy. We envisioned a planning tool that integrated inclusive pedagogical practices with Manitoba curriculum documents. We agreed we accomplished our goal through the co-development of the new IPP.

The lens of inclusion is a pivotal factor in the new IPP and a new way for teachers to reflect on their inclusive pedagogic practice. Therefore, the IPP adds something new to current literature about inclusion as well as supports previous work on DI and UDL. The new IPP is student centred and focuses on the student as a member of a community of learners. It provides guidance and support to teachers with all levels of experience and has the potential to support the use of any provincial curriculum. The IPP guides its user through every step of the planning process as a teacher is prompted to be intentional about the: who, what, when, where and why of unit planning.

My involvement in this study, allowed me to gain new understanding about myself as a researcher. I gained a further understanding of emerging themes. I learnt about collaborative action research and how to manage a large volume of data. I gained familiarity with the design process and plan to pursue further iterations of the IPP. I have been challenged to reconsider some of my ideas about inclusion and a community of learners and will continue to reflect on both of these concepts.

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## Appendix A

### Glossary

**Authentic learning.** Authentic learning occurs when what is learned in school is connected to relevant real-life experiences and problem-solving challenges of the students (Ravitch, 2007; Herrington, Reeves, Oliver, & Woo, 2004).

**Cognitive Constructivism.** Cognitive constructivism is grounded in Piaget's theories about how individuals gained new knowledge. Piaget believed that the thought process developed before language so new knowledge was gained by individuals through personal experience or build on prior experience, something known as schema (Powell & Kalina, 2009).

**Collaboration.** Collaboration is working with others, usually in a small cooperative group, to accomplish a shared goal. The group engages in analyzing, discussing, questioning, and reflecting as they encourage one another in the pursuit of the common goal (Johnson & Johnson, 1999).

**Community of learners.** Recognizing the classroom as a community of learners means that all students are considered contributing members to the learning of the classroom community. Everyone shares their expertise as active contributing members of the community as a way of advancing the knowledge of the community. Students have a say in what new knowledge they will gain, and how they will gain it (Brown, 1997).

**Constructivism.** In constructivist learning, students engage in active cognitive processing, such as paying attention to relevant incoming information, mentally organizing incoming information into a coherent representation, and mentally integrating incoming information with existing knowledge (Mayer, 1999).

**Cooperative learning strategies.** In the context of the Manitoba curriculum documents, cooperative learning strategies are specific strategies and activities that encourage students to interact with their peers as partners or in small groups. Many of the cooperative learning strategies that were highlighted in the curriculum frameworks were developed by Dr. Spencer Kagan (1994) and are known as Kagan's structures.

**Democratic classroom.** Within a democratic classroom the ideals of a democracy should be evident. These ideals include, everyone have an equal voice, everyone had the right to vote on issues, everyone's needs are met and students' rights are recognized. In a democratic classroom, the teacher works collaboratively with the students, he or she does not have the dominant voice (Kesici, 2008).

**Effect size.** Effect size refers to the "quantitative degree of difference between two groups" (McMillan, 2008, p. 256). In educational research an effect size below .5 is typically considered as small; an effect size around .5 is considered moderate; and anything above .75 is considered a large effect size (McMillan, 2008).

**Enduring understandings.** "*Enduring* refers to the big ideas, the important understandings, that we want students to 'get inside of' and retain after they've forgotten many of the details. . . . Enduring understandings go beyond discrete facts or skills to focus on larger concepts, principles, or processes" (Wiggins, & McTighe, 1998, p. 10).

**Essential question.** An essential question, (a) causes genuine and relevant inquiry into the big ideas and core content, (b) provokes deep thought, lively discussion, sustained inquiry, and new understanding as well as more questions, (c) requires students to consider alternatives, weigh evidence, support their ideas, and justify their answers, (d) stimulates vital, on-going rethinking of big ideas, assumptions, and prior lessons, (e) sparks meaningful connections with

prior learning and personal experiences, and (f) naturally recurs, creating opportunities for transfer to other situations and subjects (McTighe & Wiggins, 2013).

**Experiential learning.** Experiential learning is described by Dewey (2016/2005) as both an active and passive way of learning. It is active when students are actively involved in the learning process. Students are actively involved through experimentation, exploration, and inquiry. Experiential learning is passive as students take time to reflect on what they are learning. Experiential learning is an iterative process of activity and reflection.

**Guided Inquiry.** A definition of guided inquiry was provided in the MET document *Independent Together: Supporting the Multilevel Community* (2003).

Teachers ensure that curricular outcomes are met, that the learning needs of individual students are identified and addressed, that adequate resources are available, and that students' learning processes and products meet criteria for quality work. Thus, the teacher plans what curricula to integrate, what learning outcomes to assess, and what possibilities the inquiry may include to facilitate instruction and learning (p. 6.4)

**Higher order thinking.** Higher order thinking skills are the top three levels in Bloom's Taxonomy of Learning: analyze, synthesize and evaluate (Kratwohl, 2002).

**Ill-structured problems.** Discovery learning often begins with an ill-structured real-world problem (Barrett, 2005; Barrows, 2002; Hmelo-Silver, 2004; Powell, & Kalina, 2009). The identifying characteristics of ill-structured problems are "they fail to present one or more of problem elements, have vaguely defined goals and unstated constraints, possess multiple solutions and solution paths, possess multiple criteria for evaluating solutions, and represent uncertainty about which concepts, rules and principles are necessary for successful solution" (Shekoyan & Etkina, 2007, p. 192).

**Integrated instruction.** The Manitoba Department of Education provided a definition of integrated instruction. “To integrate means to coordinate, blend, or bring together separate parts into a functioning, unified, and harmonious whole ... curricular integration assists students to identify the links, not only between ideas and processes within a single field, but also between ideas and processes, in separate fields, and in the world outside of school.”

**Inquiry-Based Learning.** “Inquiry-based teaching is the art of developing challenging situations in which students are asked to observe and question phenomena; pose explanations of what they observe; devise and conduct experiments in which data are collected to support or contradict their theories; analyze data; draw conclusions from experimental data; design and build models; or any combination of these” (Hattie, 2009, p. 208)

**Inquiry stance.** “In everyday language, ‘stance’ is used to describe body postures, particularly with regard to the position of the feet, as in sports or dance, and also to describe political positions, particularly their consistency (or lack thereof) over time. . . In our work, we offer the term inquiry as stance to describe the positions teachers and others who work together in inquiry communities take toward knowledge and its relationships to practice. We use the metaphor of stance to suggest both orientational and positional ideas, to carry allusions to the physical placing of the body as well as to intellectual activities and perspectives over time. In this sense, the metaphor is intended to capture the ways we stand, the ways we see, and the lenses we see through. Teaching is a complex activity that occurs within webs of social, historical, cultural, and political significance. Across the life span, an inquiry stance provides a kind of grounding within the changing cultures of school reform and competing political agendas” (Cochran-Smith & Lytle, 1999, pp. 288–289).

**Metacognition.** Metacognition means knowing about cognition in general and knowing about one's own cognitive process (Kratwohl, 2002). Flavell (1979, cited in Pintrich 220-225) proposed three levels of metacognition: 1) strategic knowledge which was “knowledge of strategies for learning and thinking”, 2) knowledge of tasks which was “knowledge about different types of cognitive tasks as well as classroom and cultural norms”, and 3) “self knowledge” (pp. 221-225).

**Multiple Intelligences.** Howard Gardner (1983) developed the idea of multiple intelligences. He developed his model as an alternative to the standard intelligence tests (Petersen and Hittie, 2003). Gardner included seven different ways of considering intelligence in his original model then added an eighth and ninth intelligence later. The original seven intelligences were, logical-mathematical, linguistic, spatial, musical, bodily-kinaesthetic, interpersonal and intrapersonal (Gardner, 1983). The intelligences added later were naturalist and then existentialist (<https://howardgardner.com>, 2008).

**Problem-Based Learning.** According to Barron and Darling-Hammond (2008), problem-based learning involves students working in small groups to “explore meaningful problems, identifying what they need to know in order to solve the problem, and coming up with strategies for solutions” (p. 43).

**Problem-solving approach.** “Problem-solving is a process—an ongoing activity in which we take what we know to discover what we don't know. It involves overcoming obstacles by generating hypotheses, testing those predictions, and arriving at satisfactory solutions. Problem-solving involves three basic functions: seeking information, generating new knowledge, and making decisions” (<https://www.teachervision.com>).

**Responsive teaching.** Responsive teaching requires a teacher to be aware of students' different learning needs so they can prepare thoughtful, challenging curriculum for their students. Responsive teaching means responding to student needs respectfully with the goal in mind of helping every student successfully reach their full potential (Tomlinson & McTighe, 2006).

**Scaffolding.** "Coaching or modeling provided by a teacher to increase students' likelihood of success as they develop new skills or learn new concepts. Scaffolding in education is analogous to scaffolding in construction: just as a building's scaffolding is a temporary framework that is withdrawn when the structure is strong enough to stand on its own, so too is scaffolding in the classroom removed when students achieve competence in the targeted area" (Ravitch, 2007, p. 181).

**Social Constructivism.** Lev Vygotsky is considered the founding father of social constructivism. He considered social interaction a key tenet of learning and critical thinking. Vygotsky believed that "social interaction, culture and language" impacted how a person gained new knowledge. Social constructivists consider inner speech as integral to learning and thinking, as language use precedes knowledge. It is through the use of interactive language, in a social setting, that new knowledge is gained (Powell & Kalina, 2009).

**Student choice.** Student choice is a key tenet of a democratic classroom. "In democratic and freedom-based education, students are free to decide what they study, and how, and when they study it. ... If people have choice and freedom to study what interests them, then they become more deeply engaged in, and thus less alienated from, their learning. More engagement leads to better retention and better critical reflection and analysis" (Morrison, 2008, p. 52).

**Student-centred teaching.** Student-centred teaching is focused on the student more than on the curriculum. "Resource-based learning is a student-centred approach that adapts to student

needs, interests, abilities, learning styles, and prior knowledge. An environment that is rich in resources allows students to explore and discover as they learn, and to make personal learning choices that are relevant and meaningful” (Manitoba Education, 2006, p. 15). A student-centred approach reinforces active engagement, hands on learning, and encourages student voice and choice (Bruner, 1961; Dewey, 1938; Hmelo-Silver, 2007; Kahn & O’Rourke, 2005; Yilmaz, 2011).

**Student-centred learning.** Student-centred learning supports Spencer’s (1860) ideas of self-instruction, giving students the opportunity to discover, investigate, and experiment on their own. Through the discovery process students would make their own conclusion. Learning focused on the student should include concrete examples that a student could touch, smell, and manipulate and be fun and engaging (Spencer, 1860).

**Student voice.** Student voice is highlighted in the *Engaging Middle-years Student in Learning* (2010) document. “Student voice can best be described as the opportunities students have to express their opinions and have their opinions heard and considered. Student choice refers to the opportunities that students have to make decisions affecting their life and learning in school” (Manitoba Education & Youth, 2010, p. 25)

**21<sup>st</sup> century competencies.** The definition of 21<sup>st</sup> century competencies is from the British Columbia Ministry of Education (2011), *Personalized Learning Education Plan*. 21<sup>st</sup> century competencies are demonstrated by: 1) collaboration and the practice of team work, 2) creativity and inquiry, 3) social responsibility, 4) healthy living, 5) a global and cultural understanding that supports an appreciation of our global world and diverse citizenry, 6) communication using technology literacy and technological resource acclimatization,

7) innovation, and 8) critical thinking skills, which include reasoning, perspective-taking, and problem solving.

**Zone of Proximal Development.** The zone or proximal development is “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers” (Vygotsky, 1978, p. 86).

## Appendix B

## Education/Nursing Research Ethics Board Certificate



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## APPROVAL CERTIFICATE

June 25, 2015

**TO:** Alison Wells-Dyck (Advisor R. Freeze)  
Principal Investigator

**FROM:** Lorna Guse, Chair  
Education, Nursing, Research Ethics Board (ENREB)

**Re:** Protocol #E2015:055  
"The Co-Development of a New Inclusive Pedagogical Planner"

Please be advised that your above-referenced protocol has received human ethics approval by the **Education/Nursing Research Ethics Board**, which is organized and operates according to the Tri-Council Policy Statement (2). **This approval is valid for one year only.**

Any significant changes of the protocol and/or informed consent form should be reported to the Human Ethics Secretariat in advance of implementation of such changes.

## Please note:

- If you have funds pending human ethics approval, please mail/e-mail/fax (261-0325) a copy of this Approval (identifying the related UM Project Number) to the Research Grants Officer in ORS in order to initiate fund setup. (How to find your UM Project Number: <http://umanitoba.ca/research/ors/mrt-faq.html#pr0>)
- if you have received multi-year funding for this research, responsibility lies with you to apply for and obtain Renewal Approval at the expiry of the initial one-year approval; otherwise the account will be locked.

The Research Quality Management Office may request to review research documentation from this project to demonstrate compliance with this approved protocol and the University of Manitoba *Ethics of Research Involving Humans*.

The Research Ethics Board requests a final report for your study (available at: [http://umanitoba.ca/research/orec/ethics/human\\_ethics\\_REB\\_forms\\_guidelines.html](http://umanitoba.ca/research/orec/ethics/human_ethics_REB_forms_guidelines.html)) in order to be in compliance with Tri-Council Guidelines.

Appendix C

The Inclusive Pedagogical Planner

An Inclusive Pedagogical Planner

Designed by Teachers for Teachers



Alison Wells-Dyck©2016

## Table of Contents

WHY – The Big Picture	Orange Tab
Lens of Inclusion – WHO are your Community of Learners?	Yellow Tab
WHAT are your Goals?	Blue Tab
WHICH instructional strategies best fit this unit?	Red Tab
WHO? WHY? WHAT? WHEN? HOW? do you plan to assess?	Purple Tab
HOW? WHEN? WHERE? WHAT? are students going to demonstrate their learning?	Green Tab

## How to Use this Planner

Planning for your students learning is something you do every day. Teachers designed the Inclusive Pedagogical Planner (IPP) as a helpful, user-friendly tool to support and guide an inclusive pedagogical practice.

The IPP begins with answering two big questions, *why?* and *who?* Why are you teaching what you have planned, and who are the students in your Community or Learners?

Once you have clearly established why in your mind we suggest you completed the *WHY?* section of the planning template before reading the section on *WHO?* Alternatively you can begin by answering *Who?* prior to reflecting on *Why?*

To support you answering the questions who and why, read “The Big Picture, Why?” and complete the Big Picture template.

Now you should have a picture of your community of learners. Before you continue with your unit plan, read the Lens of Inclusion section of this binder. You are encouraged to “look” through this lens throughout the planning process continually thinking about an inclusive pedagogy. Ask yourself if and how are you using UDL principles, and how you are differentiating instruction. We suggest you remove the guiding principles of inclusion, the DI framework, and the UDL principles from the binder and use them for constant reference as you plan. If you have students in your class who require adaptations refer to the yellow tab in the *\*\*supporting binder for additional resources.*

The rest of the planning process is fluid. There is no right or wrong starting point, planning does not need to be a rigid systematic process.

There are various templates provided, all can be photocopied for personal use.

**\*\*NOTE:** A supporting binder accompanies the IPP. The tabs in the IPP are colour coded to correspond with the supporting binder. The supporting binder provides additional resources, references, and templates for your use. All templates can be photocopied. You can add or remove pages, as you like, make notes and marks on any or all of the pages, and add to the list of resources.

## THE BIG PICTURE WHY?

Planning should begin with the question why? Ask yourself why should your students care about what you are teaching, and why you should care about what they are learning. Think about making connections to their head, heart, hands and voice.



Head. Consider how the unit planned connects to your students minds, how they think and learn. What prior knowledge can be built on?



Heart. Are you connecting the unit to their passions and interests?



Hands or experiences? All students bring prior experiences to the classroom. What experiences have they had you can build on?



Voice. How have you allowed for and encouraged your students to have a say in the plan? Giving students a voice allows them to have more ownership of what they are learning, which can result in higher levels of engagement and achievement.



How will this unit connecting to student passions and or interests,



What prior knowledge do my students have? (you may already know this from your daily interactions and observations of your students, if you don't know this refer to the *Know Your Students* section in supporting binder).

How will I assess prior knowledge? (Refer to *Assessment for Learning* section in supporting binder)

Which thinking and learning styles am I targeting during this unit? (Refer to the monthly Thinking/Learning Style tracker found in the supporting binder section *Ways of Learning and Knowing* ).

## Big Picture Planning Template

**Unit Plan Template – Dates:**

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How am I going to allow and encourage student voice in the plan?

## A Lens of Inclusion

### WHO are your students?

Viewing your class through a lens of inclusion and considering them a community of learners, allows you take a holistic approach to your planning. You will consider each student as a vital, important, fully engaged member of the class who has the right to be included in every thing you do as a community. You will create a barrier free environment that allows full engagement for each student. All planning will integrate the principles of Differentiated Instruction (DI) and Universal Design of Learning (UDL) from the beginning. You can assume that your students come from diverse backgrounds, and approach learning in diverse ways. It is your job as their teacher to plan broad and deep enough to encompass the diversity in your classroom.

In order to do this well, you need to know your students. Know what knowledge and experiences they bring to the class, know how they think and learn, know their different learning styles, understand their strengths and challenges, and know what their social, emotional, academic and spiritual needs are.

You also need to know how to take all this information and put it to use when you are planning. There are many great ways to get to know your students; numerous ideas are included in supporting binder as well as links to resources you may find helpful. You will find examples of DI and UDL, learning styles, and multiple intelligences in the supporting binder.

A set of guiding principles of inclusion is provided – these can be used as a checklist to see how inclusive your Community of Learners is. The principles were inspired by Giangreco, Carter, Coyle & Suter (2010), Florian & Spratt (2013), Meyer, Rose and Gordon (2014) and Brown & Campione (1996). Ask yourself, are there principles you can improve upon or enhance?

Differentiated Instruction (DI) and Universal Design of Learning (UDL) principles are included from the start, not added on at the end. If you are unfamiliar with DI and or UDL consult the supporting binder in the **WHO** section for examples, references, and additional resources.

In order to answer **WHY** and **WHO** you need to know your students. For ideas on how to get to know your students interests, passions, learning and thinking styles refer to the **WHO** section in the supporting binder.

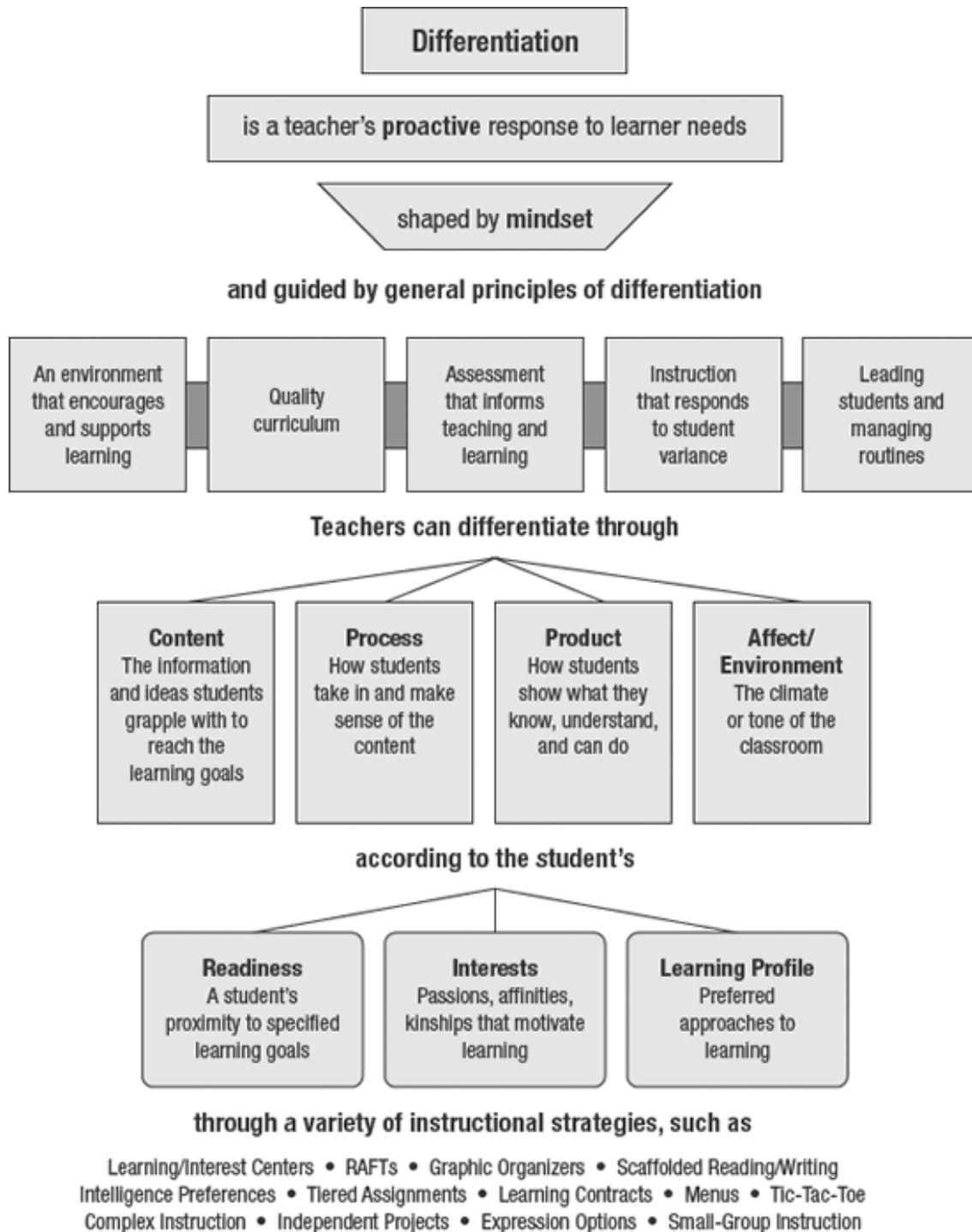
### Guiding Principles of Inclusion

- All students are welcomed into your classroom and accepted as individuals
- All students are accepted as members of the community of learners
- All students are taught in the classroom with their same age peers – the classroom teacher accepts responsibility for the learning of all students in the classroom community
- Difference is legitimized, recognized, and accepted as normal human diversity
- Appropriate supports are available to all students in the regular classroom setting
- All students participate in shared (classroom community) experiences while pursuing appropriate learning outcomes
- All students participate in collaboration and reflection
- Educational experiences are designed to enhance the balance between the academic and social aspects of school
- A classroom culture is developed that promotes not only learning but negotiating, sharing and demonstration of learning
- Teachers plan universally designed lessons
- Teachers differentiate instruction

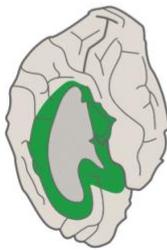
## A Framework for Differentiation<sup>2</sup>

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<sup>2</sup> Used with permission from Carol Ann Tomlinson (2017), and Association for Supervision and Curriculum Development (ASCD) copyright clearance center (2017).



# Universal Design for Learning Guidelines



Provide Multiple Means of  
**Engagement**  
*Purposeful, motivated learners*

- Provide options for self-regulation**
- + Promote expectations and beliefs that optimize motivation
  - + Facilitate personal coping skills and strategies
  - + Develop self-assessment and reflection

**Provide options for sustaining effort and persistence**

- + Heighten salience of goals and objectives
- + Vary demands and resources to optimize challenge
- + Foster collaboration and community
- + Increase mastery-oriented feedback

**Provide options for recruiting interest**

- + Optimize individual choice and autonomy
- + Optimize relevance, value, and authenticity
- + Minimize threats and distractions



Provide Multiple Means of  
**Representation**  
*Resourceful, knowledgeable learners*

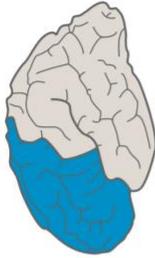
- Provide options for comprehension**
- + Activate or supply background knowledge
  - + Highlight patterns, critical features, big ideas, and relationships
  - + Guide information processing, visualization, and manipulation
  - + Maximize transfer and generalization

**Provide options for language, mathematical expressions, and symbols**

- + Clarify vocabulary and symbols
- + Clarify syntax and structure
- + Support decoding of text, mathematical notation, and symbols
- + Promote understanding across languages
- + Illustrate through multiple media

**Provide options for perception**

- + Offer ways of customizing the display of information
- + Offer alternatives for auditory information
- + Offer alternatives for visual information



Provide Multiple Means of  
**Action & Expression**  
*Strategic, goal-directed learners*

- Provide options for executive functions**
- + Guide appropriate goal-setting
  - + Support planning and strategy development
  - + Enhance capacity for monitoring progress

**Provide options for expression and communication**

- + Use multiple media for communication
- + Use multiple tools for construction and composition
- + Build fluencies with graduated levels of support for practice and performance

**Provide options for physical action**

- + Vary the methods for response and navigation
- + Optimize access to tools and assistive technologies

## WHAT?

### WHAT are your goals for the unit?



- Are you planning on teaching content from the curriculum, starting with student interest, investigating a current event in the news, or a combination of them all?
- Are you planning on pulling from curriculum across subjects? A template has been provided to record the GLO's from the grade you teach so you can see them all in one place. You may find it helpful to print a copy of the SLO's for each subject from the Manitoba Education and Advanced Learning website and adding them to the supporting binder so they are in one place. An example can be found in the **WHAT** section of the supporting binder.
- Curriculum Essentials found on the MET website could also be helpful <http://www.edu.gov.mb.ca/k12/cur/essentials/index.html>
- Students' voices, choices, passions, interests, experiences and schemas should be considered when setting goals for the unit. **WHAT** you are teaching should connect to **WHY?** and **WHO?**.

- The curricular outcomes can be found in depth on the [www.edu.gov.mb.ca](http://www.edu.gov.mb.ca) website where the complete curriculum guides can be found. In the supporting binder the General Learning Outcomes (GLO's) and Specific Learning Outcomes (SLO's) have been printed from the curriculum documents for the four cores subject areas – English Language Arts, Science, Social Studies and math. All other curriculum guides and outcomes can be found on the website listed above.
- If you are integrating cross-curricular outcomes it may be helpful to start with all the basic GLO's for the grade you teach on one page. There is a blank template that can be used and an example of one completed for a Grade 7/8 multi-age classroom. You could add other outcomes from French, Art, and Health to the template by adding more columns to the right of Mathematics as shown on the blank template. You may even find it helpful to make a chart on a poster board and simply cut and glue, or Velcro the GLO's and SLO's in the appropriate places.
- Teachers are encouraged by MET to incorporate both lower and higher order thinking skills into their teaching as well as 21<sup>st</sup> century competencies. A link to a helpful website about Blooms Taxonomy is provided along with a more detailed graphic and table. Additional suggestions for assessing Higher-Order Thinking Skills (HOTS) can be found in the supporting binder.
- <http://www.edu.gov.mb.ca/k12/tech/lict/resources/handbook/lict.pdf> this document is a good reference for investigating higher order thinking and 21<sup>st</sup> century competencies further.
- [http://www.edu.gov.mb.ca/k12/docs/support/my\\_guide/integrated.pdf](http://www.edu.gov.mb.ca/k12/docs/support/my_guide/integrated.pdf) this document explains the other connections the Department of Education suggests teachers integrate with the Learning Outcomes.

ALL GRADE 7/8 GENERAL LEARNING OUTCOMES

Note:  
There  
is a  
blank

Global Learning Outcomes	English Language Arts	Science Gr 7 / Gr 8	Social Studies Gr 7 / Gr 8	Math	Art	French	Health
Cluster/goal	Explore thoughts, ideas, feelings and experiences.	Interactions within ecosystems. Cells and systems. Particle theory of matter. Optics.	World Geography. Understanding societies past and present. Global quality of life. Early Societies Mesopotamia, Egypt, Indus Valley. Ways of life in Asia, Africa, Australia. Transition to the modern world circa 500-1400. Human impact in Europe and the Americas. Shaping the modern world circa 400-1850.	Patterns	Art language and tools.	Oral communication	Personal health practices.
Cluster/goal	Comprehend and respond personally and critically to different texts.	Forces and Structures. Fluids.	Global quality of life. Early Societies Mesopotamia, Egypt, Indus Valley. Ways of life in Asia, Africa, Australia. Transition to the modern world circa 500-1400. Human impact in Europe and the Americas. Shaping the modern world circa 400-1850.	Constancy and Change	Creative expression Art.	Reading	Active living.
Cluster/goal	Manage ideas and information.	Earth's crust. Water systems.	Human impact in Europe and the Americas. Shaping the modern world circa 400-1850.	Uncertainty	Understanding Art in context.	Writing	Nutrition.
Cluster/goal	Enhance clarity and artistic communication.	Earth's crust. Water systems.	Human impact in Europe and the Americas. Shaping the modern world circa 400-1850.	Relationships	Valuing artistic expression.	Culture	Substance abuse and prevention.
Cluster/goal	Celebrate and build community.	?	?	Number and spatial sense	?	?	Human sexuality.

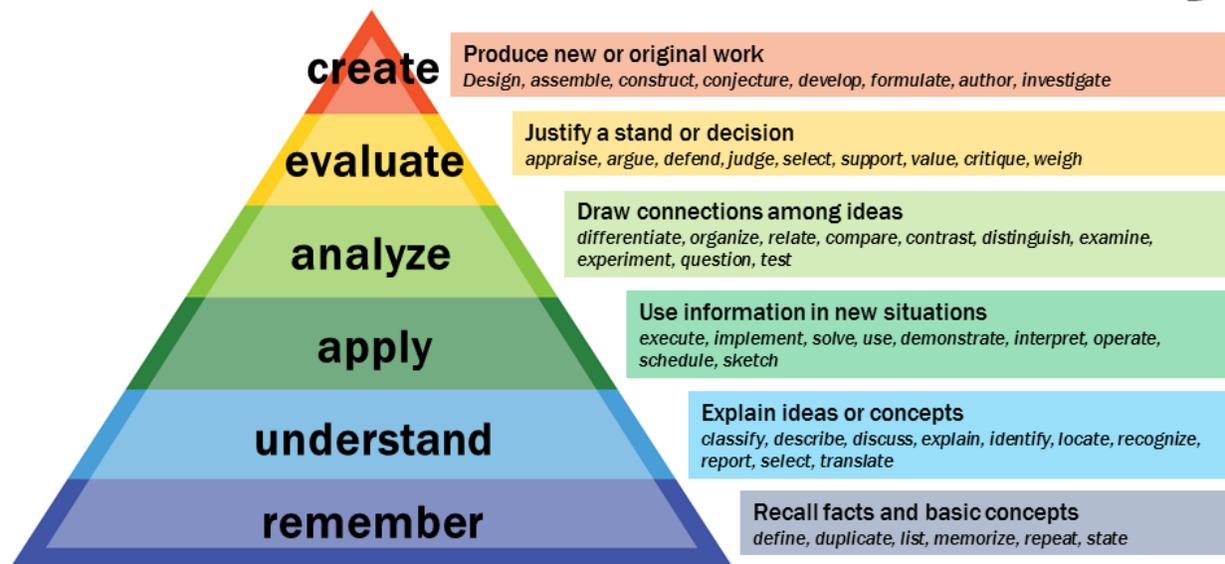
template in the supporting binder.

Are you looking for information about Bloom's taxonomy and how to use it? Click on this link:

<https://cft.vanderbilt.edu/guides-sub-pages/blooms-taxonomy/>

For a quick overview of Bloom's revised taxonomy review the graphic below. The graphic is included with permission from Vanderbilt University.

## Bloom's Taxonomy



### Other Connections – HEAD, HEART, HANDS, VOICE

Sometimes events happen in the world such as the tragedy of the Twin Towers in New York falling, a day now referred to as 9-11, or the rise of a terrorist group like ISIS. Students may hear about or see these events through media, their parents or from their peers. Students will bring their concerns, fears, ideas, etc. to the classroom. They may ask their teacher about current issues, or the teacher may overhear conversations the students are having.

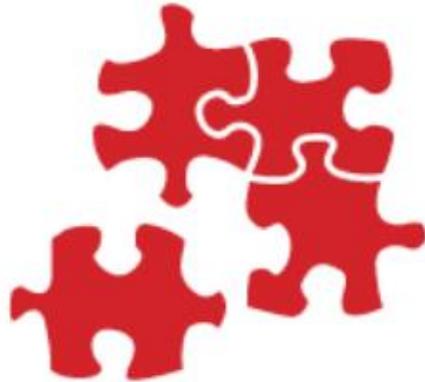
Student voice can help determine a unit of study. For example, if your students are talking about terrorism you may decide to tackle the topic in the classroom. You could start planning a unit about terrorism from any point – goals, demonstration of learning, assessment, or instructional strategy. In this case, I would start with the goals of the unit and ask myself the beginning question why? Why is this a relevant topic?

Next, I would begin to look at the GLO's for the grade I teach and see how we could fit the topic of terrorism into the outcomes I am expected to teach. Once I determined which GLO's or SLO's fit with the idea, I would decide on an instructional strategy, then in collaboration with the students, think about how they could demonstrate their learning, and finally how their learning could be assessed.

Beyond world events, students could be obsessed with a new movie, book, song, video game, sports star etc. Listening to what your students are talking about will help you know what their interests are. You may consider using some of the ideas in the supporting binder about getting to know your students. Incorporating things they are already interested in into your plans will help with student engagement, a key principle of UDL.

Develop an environment of wonder and set aside time to wonder aloud and to ask big questions. You could set aside a section of a bulletin board called "Wonder Wall" or "Our Big Questions" and as students ask big questions or are wondering about something, make a written record of it and tack it to the bulletin board. This is the beginning stage of documenting learning in the classroom. As students begin to answer questions, post their ideas. This can often instigate further questions for the bulletin board. The display could become a big mind map for the classroom. A wonder wall helps you know what your students are thinking about, it also serves as a model of big questions.

## WHICH?

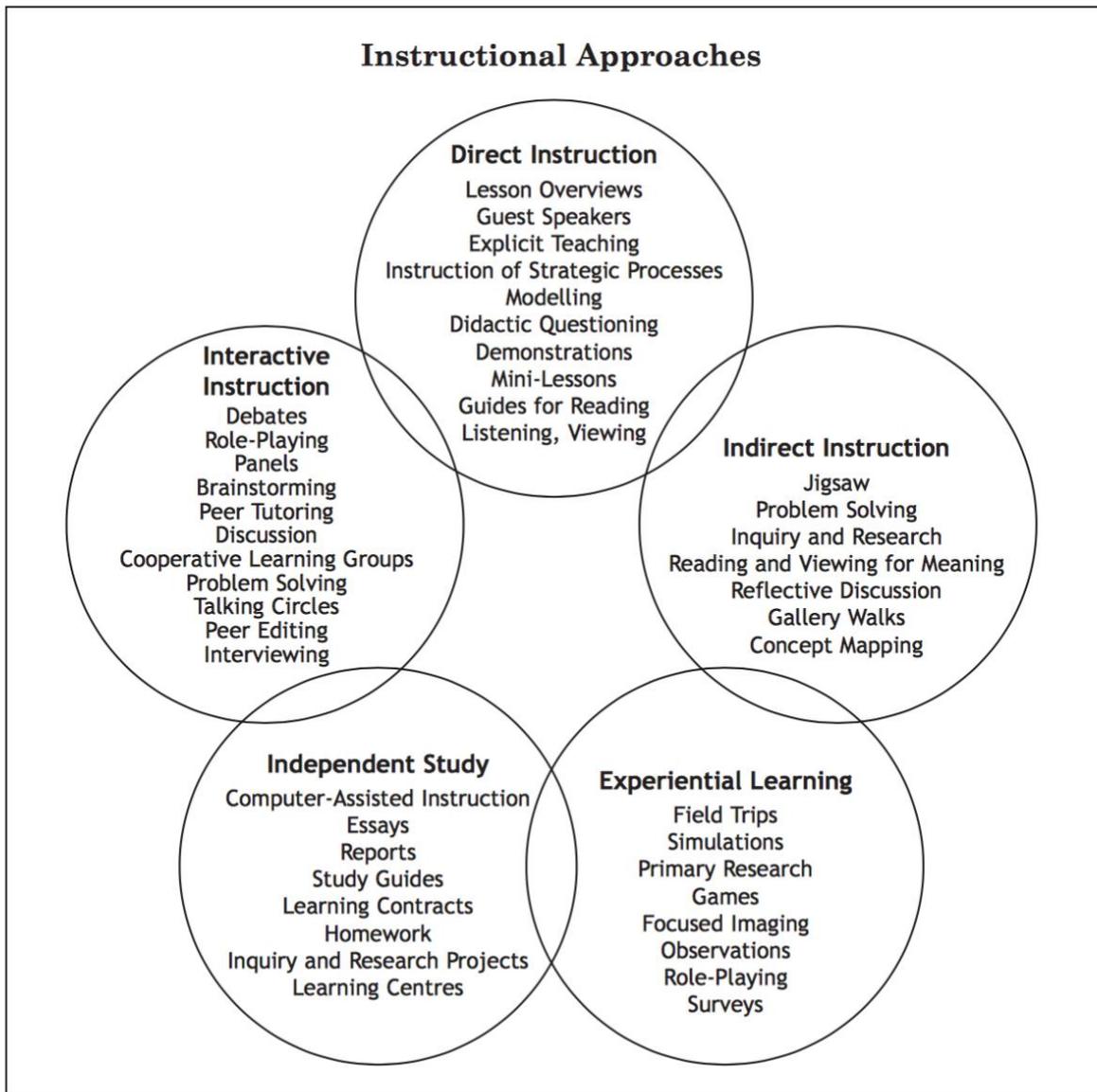


**Which** instructional strategy is best suited for your Community of Learners and the Unit Plan?

There are many different instructional strategies and approaches a teacher can use. A graphic and a glossary of some of the more popular strategies is provided here. For further examples, see the **WHICH** section in the supporting binder.

Using a variety of Instructional Strategies throughout the year is a Universal Design of Learning principle. One way to remind yourself to use a variety of strategies and challenge your ongoing pedagogical practice is to keep track of which strategies you have used. Provided for your use is a simple tracking template to support and guide your choice of instructional strategies. Being intentional about your planning is key.

A variety of instructional strategies and how to use them follow this link:  
[http://www.edu.gov.mb.ca/k12/cur/teched/home\\_ec/howto.pdf](http://www.edu.gov.mb.ca/k12/cur/teched/home_ec/howto.pdf).



**Instructional Approaches:** Figure adapted, with permission, from Saskatchewan Education. *Instructional Approaches: A Framework for Professional Practice*. Copyright © 1991 by Saskatchewan Education.

## Glossary of Instructional Approaches

### Direct Instruction

**Lesson Overviews** — Teachers construct the frame that best suits their subject matter, grade, and classroom and lesson organization. Overviews are often put on a transparency or erasable poster so they can be reused with each class. The purpose is to help students focus on the goals of the lesson and to place the lesson in the context of a unit.

**Guest Speakers** — Inviting professionals or those with information on topics being studied offers students the opportunity to examine topics from a personal point of view and obtain current, reality-based responses to questions.

**Explicit Teaching** — Teacher-directed lectures can provide students with information that may be required before high-order thinking can occur. Teachers are encouraged to provide information which meets at least two learning modalities (visual, auditory, tactile, and kinaesthetic) by using overheads, writing on the board, and supplying handouts and reading notes.

**Instruction of Strategic Processes** — The steps that are required in order to complete a task and move on to the next level.

**Modelling (role playing, think alouds, and demonstrations)** — Teachers model their use of strategies so that students can emulate them. Teachers verbalize all thoughts for students as they demonstrate skills or processes. After several modelling experiences, students should practise using the strategy in pairs. Ultimately, students should work independently with the strategy.

**Didactic Questioning** — By asking leading questions, the teacher is able to draw information and answers from students.

**Demonstrations** — A teacher, student, or guest demonstrates a technique to students. This technique works best if students are allowed to practise the technique on their own or in pairs following the demonstration. The teacher or fellow students can offer feedback. Students should be given the opportunity to reflect on their proficiency and areas for improvement.

**Mini-Lessons** — Lessons that are 20 minutes in length. Recent brain research indicates that learning/retention occurs in the first 20 minutes of each class.

**Guides for Reading, Listening, Viewing** — Providing students with guides (e.g., guided notes for a video) helps them to identify important information and encourages attentiveness.

### Indirect Instruction

**Jigsaw** — Individuals or small groups each explore a different topic or a different area of the same topic. Individuals or groups are then responsible for teaching their newly acquired knowledge to the rest of the class.

**Problem Solving** — Stimulate student thinking by presenting a situation in which the student works through a process which leads to a solution.

**Inquiry and Research** — Individually, in pairs or small groups, students explore topics and present their findings to the class via an oral presentation or Gallery Walk.

**Reading and Viewing for Meaning** — Techniques of reading print material and viewing visual media to become more conscious, discerning, critical, and appreciative readers.

**Reflection** — Learning Logs: Students regularly write short, spontaneous, exploratory, personal pieces of writing about the content they are studying. It is writing for thinking and not for creating a polished product.

**Admit/Exit Slips** — Students fill in these small slips at the beginning and end of the class. They help students to focus on what they expect to learn and reflect on what they have learned. This provides the teacher with information on student learning.

**Gallery Walks** — Teachers or students display information and samples on various topics throughout the room. Individually, in groups or as a class, students circulate and are presented different information at each station.

**Concept Mapping** — Assign student(s) a word or idea and have them generate related words and/or topics. Students then examine the relationships between the words and ideas they have generated.

### Experiential Learning

**Field Trips** — Students visit sites that relate to topics being studied. The most successful excursions outside the classroom are those that are organized because students have asked to visit a particular site to further some aspect of research they have undertaken.

**Simulations** — Students practise a skill or technique under controlled or ideal conditions with teacher or peer guidance before they are given the opportunity to perform on their own.

**Primary Research** — Research that explores original (first-hand) sources. May include interviews or reading first-hand accounts of a person's experience or findings.

**Games** — Activities based on popular board or television games. Questions are based on course content and can be written by the teacher or students. Can be used to review information or to activate learning prior to starting a unit.

**Focused Imaging** — Talking students through an event. Students may choose to close their eyes, listen, and visualize as a speaker describes a process, event, or location. Can be enhanced with sound effects.

**Observations** — Students and teacher can identify phenomena they are looking for and observe the frequency of occurrence. Observations can also be used to determine how a process takes place. It is important to remind students to remain objective (record what they see) and not make assumptions regarding causes of phenomena.

Role Playing — Teacher can provide, or the students can write skits which students act out in an effort to explain or demonstrate an idea or the sequence of a process.

Surveys — Students or teacher develop questions and determine an audience in an effort to study a phenomenon, belief, or the perceptions of others.

### Independent Study

Computer-Assisted Instruction (CAI) — Software (computer programs) that provide exercises for drill and practise, rapid evaluation of student response, student feedback, concrete representations of abstract concepts, and more one-on-one instructional time.

Essays and Reports — Research and write on a topic assigned by the teacher or one that the students have chosen.

Study Guides — Reviewing content through the use of a document that provides the framework of knowledge covered in a unit or course.

Learning Contracts — Teacher and students create a contract or proposal specifying the topic, learning outcomes, experiences, products, resources, timelines, and assessment.

Homework, Inquiry, and Research Projects — Students are given the opportunity to independently research and examine information that is covered in class.

Learning Centres — Organize the classroom into various activity or learning stations. These offer opportunities for independent inquiry and exposure to a wide variety of materials and sources of information.

### Interactive Instruction

Debates — The class is divided into two groups (teams). Each team is assigned one side of an issue to defend or promote. Teams are responsible for generating support for their side of the issue. Following the time assigned for developing arguments, students individually argue points on behalf of their team by introducing new points or offering a rebuttal to points made by the other team.

Role Playing — The teacher can provide or the students can write skits which students act out in an effort to explain or demonstrate an idea or sequence of a process.

Panels — Groups of people with first-hand knowledge or experience on a topic.

Brainstorming — Students generate ideas and information as a result of contributing what they already know and building on the ideas of others.

Peer Tutoring — Students learn from and teach one another as they share their work.

Discussion — Most useful way of transmitting information, learning what students think and know, and building a sense of classroom identity when all class members have a chance to speak before anyone responds twice.

Co-operative Learning Groups — Students are placed into small groups or teams, based on the teacher's criteria, and work together at various times to achieve common learning goals.

Problem Solving — A meaningful task, which centres on overcoming constraints or limiting conditions.

Talking Circles — Based on First Nations teachings, this process creates a safe environment for discussion of conflicts, difficult situations, or decisions student may face. This allows every student to be heard and teaches students to respect each other and help build consensus (Manitoba Education and Training, *Success for All Learners*, 1996).

Peer Editing — Ongoing groups in which students give feedback on drafts of each other's writings for the purpose of improvement.

Interviewing — Students generate questions to ask and arrange an interview with a person who has first-hand knowledge and/or experience with a topic.

Manitoba Education and Youth (2003). *Middle-years Home Economics/Industrial Arts Teacher Support Document* retrieved from [http://www.edu.gov.mb.ca/k12/cur/teched/home\\_ec/all.pdf](http://www.edu.gov.mb.ca/k12/cur/teched/home_ec/all.pdf)

## Instructional Strategy Tracking Template

Month	Instructional Strategy	Instructional Strategy	Instructional Strategy
September			
October			
November			
December			
January			
February			
March			
April			
May			
June			

Alison Wells-Dyck © 2016

**ASSESSMENT**  
**WHO, WHY, WHAT, WHEN, AND HOW**



**Assessment** has many different purposes. Ask yourself How, Why, What, When, Who, am I assessing?

An assessment-planning template is provided in the IPP along with a glossary of different types of assessment tools and methods. For examples of assessments as, of and for learning, refer to **ASSESSMENT** in the supporting Binder.

Using a variety of assessment tools and methods is another way of incorporating DI and UDL. It also keeps in mind **WHO** your community of learners are as you provide multiple ways they can receive feedback.

Student voice and choice should be included in the assessment process. Students can help develop criteria for assessment and they will develop critical thinking skills as they self-assess, and provide peer reviews.

A helpful planning template can be found by following this link:  
<http://www.edu.gov.mb.ca/k12/assess/wncp/appendix1.pdf>

The Manitoba Education and Training blackline master (BLM4) for tracking assessment over the year is also provided in this section.

#### Glossary of Assessment Tools and Methods

**Checklists** — An instrument that specifies criteria or indicators of merit on which the evaluator marks the presence or absence of the attributes being assessed.

**Anecdotal Comments and Records** — Data obtained from a written description of an activity or behavioural incident.

**Reviews of Drafts and Revisions** — Self-correction to improve student's learning. Capability to recognize and correct mistakes.

**Rubrics and Marking Scales** — A rubric can be an explicit description of performance characteristics corresponding to a point on a rating scale. A scoring rubric makes explicit expected qualities of performance on a rating scale or the definition of a single scoring point on a scale.

**Reflection Logs/Journals** — A journal or diary, maintained by the student. The log can serve as a source of information for self- assessment or an evaluation, or can be included as part of a portfolio.

**Self-Assessment Instruments** — The process of judging one's own learning/performance for the purpose of self-improvement (for example, videotape, filling out self-rating forms, keeping a log, or compiling a portfolio).

**Peer-Assessment Instruments** — Evaluation of a student by another student, usually done to provide feedback to the evaluatee for purposes of improvement.

**Written Assignments/Essays** — Assess the student's understanding of a subject through a written description, analysis, explanation, or summary. Involves critical thinking, analysis, and synthesis.

**Demonstrations/Presentations** — Students have the opportunity to show their mastery of subject-area content and procedures. Allows students to verbalize their knowledge.

**Projects** — Participants actively plan and work with tools, materials, and processes to create a product. Projects are comprehensive demonstrations of skills and knowledge that require a broad range of competencies.

**Portfolios** — Refer to *Success for All Learners*, Chapter 11.10. Usually files or folders that contain collections of a student's work. They provide a broad portrait of individual performance, assembled over time.

**Journaling or Notebooking** — Short, spontaneous, exploratory writing, often done amid or between other activities. A record of events which students may be asked to keep as part of their learning.

**Tests and Exams** — Refer to *Success for All Learners*, Chapter 11.16. A device or technique used to measure the performance, skill level, or knowledge of a learner on a specific subject matter. It usually involves quantification of results — a number that represents an ability or characteristic of the person being tested.

**Quizzes** — A short test to measure achievement on material recently taught or on any small, newly completed unit of work.

Manitoba Education and Youth (2003). *Middle-years Home Economics/Industrial Arts Teacher Support Document* retrieved from [http://www.edu.gov.mb.ca/k12/cur/teched/home\\_ec/howto.pdf](http://www.edu.gov.mb.ca/k12/cur/teched/home_ec/howto.pdf)

**Assessment Plan: Year-at-a-Glance (BLM 4)**

Month	Methods and Tools						
	Observation			Performance / Product			
	Daily Observation	Focused Observation	Conference	Portfolio	Anticipation Guide	Running Record	Other
September							
October							
November							
December							
January							
February							
March							
April							
May							
June							

Retrieved from <http://www.edu.gov.mb.ca/k12/docs/support/multilevel/blms.pdf>

## DEMONSTRATION OF LEARNING



This section presents ideas on how students can demonstrate their learning. For further examples and explanations, refer to **HOW** in the supporting binder.

For a good list of ideas go to this link and refer to pg. 24 -

[http://www.edu.gov.mb.ca/k12/cur/languages/spanish/gr7tos4\\_found/assessment.pdf](http://www.edu.gov.mb.ca/k12/cur/languages/spanish/gr7tos4_found/assessment.pdf)