

Running Head: INCLUSIVE PRACTICES IN FRENCH IMMERSION

VANCOUVER ISLAND UNIVERSITY

Equitable Learning and Neurodiversity: Inclusive Practices in French Immersion

By

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We accept this Thesis as conforming to the required
standard.

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Abstract

The number of neurodiverse learners in French Immersion (FI) increasing every year. The question of the suitability of the FI program should no longer be a topic of discussion for these learners. This study was designed to ask the questions: “what do FI teachers understand about inclusive practices and which ones do they utilize in their classrooms?” This mixed-methods study employed a cross-sectional survey to recruit participants from approximately 30,000 international FI teachers from various closed FI teacher groups on Facebook. From that number, 54 Canadian FI teachers participated in the survey. The findings of this study reveal that FI who participated may recognize and utilize some inclusive practices, in particular Project/Inquiry-Based Learning. However, they do not demonstrate confidence in their understanding or use of UDL or RTI as a regular part of their teaching. This indicates a need for further professional development in inclusive practices such as UDL, RTI or P/I-BL to set neurodiverse learners up for success in FI classrooms.

Keywords: neurodiversity, Universal Design for Learning, Response to Intervention, Project/Inquiry-Based Learning, inclusive practice, French Immersion

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Dedication

To my children: Kyle, Rebecca, Phillip and Elise - my reasons for becoming a teacher in
the first place.

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Chapter 1: Introduction

All learning involves change and challenge, and the one aspect of the role of teachers that does not change is the responsibility to support students to complete learning tasks. By adapting, providing assistance, and building understanding of specific needs that delay understanding, teachers provide tools to support students to overcome challenges. French Immersion (FI), while a rewarding program that offers just the right amount of challenge for some students, adds another layer of difficulty for others. Arnett and Mady (2010) posit that the majority of learners with exceptionalities are in English programs but that is because historically, learners with special needs have been discouraged from attending EFI (Early French Immersion) schools. They argue for a shift in the attitude of excluding students with special needs from French Immersion programs. There is a higher rate of attrition in French Immersion schools, perhaps due to the level of difficulty for students with special needs. Pellerin (2013) asserts that not all students in FI programs experience success and stay in the FI program. “There is an alarming incidence of students experiencing learning difficulties...being transferred out of EFI programs” (p.46).

Pellerin (2013) specifies that part of the problem is the lack of “inclusive and differentiated pedagogical practices” (p.46) and that despite school boards espousing inclusion, it remains challenging to implement inclusive practices in the FI classroom.

Bunch (2015) states that, “Canada often is regarded as a leading nation in the area of inclusive education and disability” (p.1). He goes on to specify that the three northern territories and New Brunswick have “moved beyond the Special Education Model” (p.1) and “are developing and employing organizational and pedagogical strategies that support inclusion of all students in regular classroom settings” (p.1). He also asserts that “[m]any Canadian governments

and educators do not appear to understand the difference between the two Models” (p.3). Bunch reports that,

Inclusive Education in Canada indicates that a confused picture exists. A number of jurisdictions have embraced Inclusive Education in both theory and practice for all students...the majority of governments recognize inclusion as a value system that does not mandate regular classroom placement for all students. These jurisdictions have placed caveats, such as that of Saskatchewan, in their policies that permit continuance of the Special Education Model. In British Columbia policy also, the practice of inclusion is not necessarily synonymous with integration in regular classrooms (p.4).

Bunch further asserts that, “Inclusive schooling is more than a method or strategy. It is a way of life that is tied directly to the value system that values diversity” (p.4). The issue is that all ten provinces and three territories have their own policies and even though there is some discussion between them, they don’t all have the same definition of inclusion. This is potentially problematic because without a clear and consistent definition, teachers cannot know what is expected of them and by extension, neurodiverse learners across Canada are not being given the same opportunities to learn inclusively.

Canada is not the only country with different definitions of inclusion. According to Powell (2012) in New Zealand for example, while most neurodiverse learners attend regular schools, there are still “day schools” and “residential schools” for “supporting students who are hearing or vision impaired, have severe behavioral needs, or educational or social and emotional needs with a slow rate of learning” (p.9). Such students in Canada would be in regular classrooms. Powell also asserts that “some caution must be taken here when comparing such international data, as different countries will use differing definitions for both students with

special educational needs, and the educational settings in which they learn” (p.9). In 1994, the World Congress on Special Needs Education created the Salamanca Statement and Framework for Action. 92 countries and 25 organizations adopted it. Hunt (2011) states that

Although the... policies take on transnational dimensions, it is up to each nation state to determine the actual endorsement and enactment of each policy. Structural guidelines take on the character of each nation state, and reflect each nation state’s own interpretation of the common goals. Inclusive education is no exception (p.463).

Essentially, the Salamanca Statement sets the guidelines and it’s then up to each government to create their own definition. Therefore, this seems to suggest that there isn’t a clear and consistent definition of inclusion across the globe.

The Problem

While it is true that learning in a second language does create challenges particularly for students with special needs, the question is whether transferring them to English programs is in their best interests. The argument that people use for transferring a student with special needs is two-fold. Their first argument is that the language of instruction is English so that should eliminate the students’ problems. This is not necessarily true. Students with learning disabilities transferring into English programs still have learning disabilities that do not disappear with the change of program. Expectations for reading and writing are higher because the student is learning in his first language. In some cases, the student will have had limited instruction in English, if any, which will add to the challenge (Genesee, 2007).

Their second argument is that in an English program, the student will have one less language to learn and one less subject area to study thus, lessening the load. While it is true that it does constitute one less language to learn, this is not necessarily the case for a student who

transfers before beginning English Language instruction. Genesee (2007) argues that transferring a student to an English Language program will not solve the problem, may in fact exacerbate the students' problems and will damage the students' self-esteem in the process. He goes on to query what kind of training or "professional competencies" FI teachers should have in order to be able to attend to the needs of vulnerable learners in FI and also argues that:

Ethical issues arise because to exclude students who might face difficulty in immersion from participation in these programs is to deprive them of access to what is arguably the most effective form of second language (L2) education and, in turn, from an important life- and job-related skill, namely, proficiency in French (p.657).

All students have both a right to a FI education, and to the support required to be successful and it is the responsibility of schools and teachers to provide inclusive education and the supports required for student success.

The Right to French Immersion Instruction

At no point in this process is it appropriate to question the suitability of the FI program for struggling students. According to the British Columbia School Act (2018),

“(1) Subject to section 74.1, a person is entitled to enroll in an educational program provided by the board of a school district if the person

(a) is of school age, and

(b) is resident in that school district.

(2) Subject to section 74.1, a person may enroll in an educational program provided by a board of a school district and attend any school in British Columbia if

(a) the person is of school age,

(b) the person is resident in British Columbia, and

(c) the board providing the educational program determines that space and facilities are available for the person at the school in which the educational program is made available”. (2018, p.1)

This means that all students have the right to go to school. Public schools are for everyone and therefore, as long as a student lives in the catchment area, they have the right to attend that school. For the most part, FI schools are public schools so all students have the same right to attend. According to Inclusion BC (2018),

To ensure the success of inclusion, students must have the necessary supports to learn in the regular classroom and participate in school social activities...While some school boards throughout BC have adopted an inclusive education philosophy, others have not. Despite the Ministry of Education mandate... children are being placed in alternate settings or removed because of inadequate supports. As well, many teachers report that they feel unprepared to educate students with special needs in inclusive classrooms.

(<http://www.inclusionbc.org/about-us/social-policy-positions/inclusive-education-k-12>)

Challenges faced by neurodiverse learners in FI schools can be addressed using inclusive practices, the same as for students in English language programs.

Inclusive Practices

The need for inclusive practice stems from an increase in students' diverse needs, referred to by some as “neurodiversity”. Armstrong (2012) specifies that, “neurodiversity seeks to acknowledge the richness and complexity of human nature and of the human brain” (p.11). According to Janney and Snell (2013),

Effective inclusion practices require changes in the curriculum, in how teachers teach, in how students learn, and in how students with and without disabilities as well as their

teachers interact with one another. Effective schooling practices and inclusive models of education are synonymous and interdependent. (p.5)

Universal design for learning.

There are basic inclusive practices that should be present by default in all classrooms; however not all educators are at the same level of understanding when it comes to inclusion and differentiation, just like not all students are at the same levels of development or knowledge. Most adaptations that are made for neurodiverse students also benefit neurotypical students and therefore it follows that most adaptations fall under the umbrella of Universal Design for Learning (UDL). Simply put, UDL tools and strategies work in every classroom for every student and differentiated instruction is beneficial for all students whether they have diagnosed special needs or not. According to Gordon, Meyer and Rose (2010), “when students encounter difficulty, the curriculum-not the learner- is assumed to be inadequate to meet the varied and diverse needs of learners” (p.129). UDL allows for students to choose which methods to use to engage in learning, helps them to understand how to organize what they have learned, if and how to expand their questioning, how to demonstrate what they have learned and then what their next steps are. For example, in a Grade Four multidisciplinary project where students need to research what kinds of living organisms live in the inter-tidal zones, they would need to begin by having a variety of media to choose from to conduct their research. For some, this would involve reading articles from websites (with or without assistance from the teacher), some from magazines or books found in the library and some might benefit from being able to listen to articles with the help of technology. Students with difficulty reading might prefer videos of different degrees of complexity, depending on their level of comprehension. When it comes to note-taking for answering guiding questions about the organisms, some might prefer to use speech-text

technology to write their ideas; some might prefer to just write their notes themselves. To present their final projects, some students might choose to make posters, some with drawings and sketches while others might prefer to print off pictures and glue them onto a poster board. Students who are more technologically-minded may choose to use PowerPoint or Prezi to present what they have learned. The point is that there are so many different ways to research and present a project that with the right amount of guidance all students with or without exceptionalities can complete projects and showcase what they have learned.

UDL is an efficient way for students to work around some of their challenges and still experience the sweet sensation of success. In classrooms where UDL strategies are used as a matter of course, students with learning challenges can learn to feel less conspicuous because everyone is learning and presenting their learning differently. It is through the use of UDL strategies that educators can really see where students are struggling (Gordon, Meyer & Rose, 2010). UDL strategies work just as efficiently in FI as they do in a regular classroom because they are “universal”. Armstrong (2012) reminds us that:

The implications of neurodiversity for educators are enormous. Both regular and special education teachers have an opportunity to step out of the box and embrace an entirely new trend in thinking about human diversity. Rather than putting kids into separate disability categories and using outmoded tools and language to work with them, educators can use tools and language... to differentiate learning and help kids succeed in the classroom (p.11).

He goes on to posit that UDL “refers to the removal of barriers to learning for kids with disabilities in ways that also enhance everyone else’s ability to learn” (p.17). FI students can benefit from these strategies just as their English counterparts can.

It is important to note that UDL strategies are adaptations or accommodations that “a teacher does to help the student that changes the learning environment...” (Fierro-Trevino, 2003). Adaptations are not to be confused with modifications which are used to modify the curriculum. (Fierro-Trevino, 2003) Inclusive practices such as UDL are meant to change the learning environment to assist all learners to demonstrate what they know, understand and are able to do in line with curricular objectives.

Response to intervention.

It is known that students do not learn unless they know why they need to know the information or they are passionate about it (Eaton, 2011). Furthermore, a student-centered classroom addresses the learning needs and learning potential of all students. The focus of the Response to Intervention (RTI) model begins with diagnostic assessment and then proceeds to targeted instruction. FI teachers who understand RTI can adapt instruction and expectations for their students just as well as their English program counterparts.

The RTI Action Network (n.d.) defines RTI as, “[s]truggling learners...provided with interventions at increasing levels of intensity to accelerate their rate of learning .” They go on to suggest that RTI can be implemented by specialists and generalists in the classroom.

Implementation of RTI involves initial generalized group instruction to begin with. Next, “a multi-tier approach is used to efficiently differentiate instruction for all students. The model incorporates increasing intensities of instruction offering specific, research-based interventions matched to student needs (<http://www.rtinetwork.org/learn/what/whatisrti>).

Of course, to measure how well the students are responding to the intervention, there has to be continual monitoring and assessment throughout the project. RTI would be used first by presenting the scope of the project to the entire class. The students who understand where and

how to begin independently, and with UDL adaptations in place as needed (Tier 1) begin finding articles or websites to look at. Once the students who can work independently have their starting point, the teacher will then go to work with the students who are not as independent and begin the process of diagnostic assessment in order to be able to put some initial interventions in place. The teacher would also be able to have some supports in place to help students build meaning from the texts or videos that will be used to gather information for the project (Tier 2). At this point, there should be some chunking and scaffolding of the project to help these students to begin their work. Multiple entry points are very useful for students with exceptionalities because not all sections of a project are necessary for all students. The idea behind RTI is to know which students need what intervention and what the students require to achieve success in their learning. Some students might skip reading the websites, magazine articles and books and begin by watching videos that the teacher has found beforehand. Students with continued difficulties will require even more targeted instruction and more specific chunking and scaffolding (Tier 3). They may also benefit from completing fewer project sections, in line with Inclusive Education Plans (IEPs) or the teacher may simply reduce expectations in order to set the student up for success. Students with severe reading/comprehension difficulties might want to watch an easier video in groups and watch it in small segments. Continuous monitoring and formative assessment are a necessary part of RTI. Of course, part of the monitoring is taking notes on the student's progress and where they require supplementary interventions. These interventions can be done in French as there is no difference between differentiating, chunking and scaffolding in French or English. This sounds like a lot of work, but it is important to remember that the number of students receiving this level of intervention is very small compared to the rest of the class who need less instruction and supervision. Typically, students at a Tier 1 level who can work independently are

approximately 80% of the class. (McIntosh, MacKay, Andreou, Brown, Mathews, Gietz & Bennett, 2011)

For RTI to be effective, it is important to understand student-centered teaching and learning allow the use of “the natural energy of students to create meaning for themselves and it makes learning more authentic, enjoyable, and intrinsically motivating” (Naude, van den Berghe & Kruger, 2013, p.212). Another point to remember is that RTI does not end once a teacher knows which students are in which tier. For one thing, since students do not all have LD in every subject area, they won’t always be in the same tier. The other thing to remember is that the tier indicates how much intervention a student may require. The goal is that with the right kind of intervention and monitoring, the student should be able to showcase what he knows, understands and is able to do. There will be variations in how much the student can do independently, but the idea is that specific learning goals and targeted intervention will help the student accomplish more work independently.

Project/inquiry-based learning.

Project or inquiry-based learning (P/I-BL) is an efficient way to implement inclusive practices and to teach the grade-level objectives at the same time. The teacher plans a project or inquiry that stems from an essential question, either created by the students or the teacher. Students learn the skills they need as the project progresses either as a large group, small groups or individually on an as-needed basis. They develop collaboration skills or sometimes even discover leadership potential. According to Ott (2015),

Project Based Learning can be described as student-centered instruction that occurs over an extended period of time, during which students select, plan, investigate, and produce a product, presentation or performance that answers a real-world question or responds to an

authentic challenge (p.9).

Within Project/Inquiry-Based Learning, a teacher can incorporate UDL and RTI for struggling learners. Projects provide a means for more independent learners to work on their own while the teacher differentiates for the few learners in the class who require more instruction and more targeted intervention. Armstrong (2012) encourages a strength-based approach to differentiated instruction which lends itself well to Project/Inquiry-Based Learning. He suggests that,

[r]egular classroom teachers are far more likely to want a “rare and beautiful flower” in their classroom than a “broken,” “damaged,” or “problem” child. Just as we accept that individual species of plants have specific environmental needs...we need to understand that neurodiverse require unique ecological nutrients in order to blossom... Teachers should seek to discover students’ unique requirements for optimal growth then implement differentiated strategies to help them bloom. (p.12)

UDL and RTI combine together to initially provide all students with differentiated opportunities to learn and demonstrate what they have learned (Tier 1) and then move into interventions to target students’ specific areas of need (Tiers 2 and 3). P/I-BL is an efficient way to engage all students in learning that interests them but at a level that is appropriate for them. Using multiple entry points, students can focus on elements of the project that are relevant to them at their level and to their learning. Robinson and Hutchinson (2014) declare, “To ensure everyone learns, begin where the students are. To show students what they have learned; create an array of assessment vehicles” (<https://www.ldatschool.ca/tiered-approaches-to-the-education-of-students-with-learning-disabilities/>). In this way, students who understand how to proceed with minimal support can work independently, using a variety of UDL tools at their disposal,

students who require supplementary instruction or intervention can begin projects at different places, with varying degrees of support, doing specific pieces of it that will help them to demonstrate what they know, understand and are able to do. Formative assessment combined with scaffolding and chunking are excellent ways to help a struggling student understand what is expected and how to proceed.

Pre-Service Education for French Immersion Teachers

Genesee (2007) questioned what type of training a FI teacher should have in order to be able to efficiently tend to the needs of students with exceptionalities. Arnett and Mady (2010) declare that

[w]hen we investigate program requirements for special education, it is not surprising that research shows that FSL teachers feel inadequately prepared to meet students' need. Both the British Columbia and Ontario College of Teachers specify that programs contain "course content" that addresses aspects of diversity, such as special education needs; however, there is no sense into the depth and breadth of content that is considered basally sufficient for becoming a preparation in meeting the needs of their included students. (p.30-1)

This raises a question about pre-service teacher training on the subject of special education and inclusion. Arnett and Mady (2010) further explain that,

in the absence of standardized content for teacher education, programs can set their own agendas about what is "important content" for becoming a teacher. This situation has led to great variation among programs - including those for FSL education. Although it is stipulated that these programs offer theoretical and methodological content for FSL, a critically conscious analysis will find that the potential absence/variance in the special

education content is more significant. Inequalities in the knowledge set related to a minority population can limit one's ability to impact change in the treatment of that group (p.30).

Arnett and Mady (2010) cite a study from New Brunswick which reiterates that French Immersion teachers do not feel sufficiently well-trained to properly support students with challenges in their classrooms. Research conducted in New Brunswick and in other provinces recommends that in order to increase retention and improve inclusion, teachers should have more professional development (p.28). Hurlbut and Tunks (2016) posit that "research has also connected teacher confidence and self-efficacy with pre-service course work and field experiences in special education issues" (p.26). It makes sense for initiatives such as inclusion to involve training for teachers in order to make sure they are set up the success they need to then set struggling learners up for success. Teacher training can begin with pre-service training and then professional development given through school boards but can also perhaps extend to topics for Professional Learning Community (PLC) discussions and work.

Purpose of the study

This study poses the question: "What inclusive practices do French Immersion teachers understand and utilize?" Students with exceptionalities face several challenges in FI. One of these challenges is the decreased amount of support in FI. Students with exceptionalities need at least the same amount of support in order to succeed as students in English programs. One aspect to consider is that students in second language programs need more support because they are learning in another language. They require support to understand, speak, read and write in a second language. To that end, what inclusive practices would be helpful for FI teachers to understand and utilize in order to be more inclusive especially in view of the lack of support?

How can FI teachers balance second language instruction and content and differentiate everything that this entails in order to set struggling learners up for success in a FI program?

Overview of Study

The research for this thesis centers on what FI teachers understand about UDL and RTI models when combined with project/inquiry-based learning and which inclusive practices they utilize. The methodology for the study was a mixed methods survey to collect information from Canadian French Immersion teachers about what they know, understand and are able to do with UDL, RTI and project/inquiry-based learning. The data was collected through survey questions created about UDL, RTI and project/inquiry-based learning. Links to the surveys and an invitation to FI teachers were posted on closed Facebook French Immersion teacher group pages and were offered in both English and French in order to facilitate both Anglophone and Francophone participants to respond to the best of their ability and to make sure the data collected was as linguistically reliable as possible. The data was then analyzed and classified in terms of elementary teachers and secondary teachers. Because the groups are closed, privacy is guaranteed. The knowledge created by these surveys serves to demonstrate the level of comfort of the survey participants in using these three models of instruction to support students with learning disabilities. The data collected was intended to demonstrate whether FI teachers are familiar enough with inclusive practices or whether perhaps more training and professional development is needed. The benefits were details about what this small sampling of FI teachers knows, understands and is able to do in terms of inclusionary practices. The main limitation is that even though the group of participants is from across Canada, the sampling of teachers is too small to be able to generate any conclusions about what FI teachers in general know about inclusive practices. Another limitation is that the data collected is teacher self-reported and

therefore is not based on observable evidence. The findings about what this group of participants knows about inclusive practices suggest a general need for more professional development to help FI teachers to be more inclusive.

Chapter 2: Literature Review

Overview

This chapter reviews studies conducted about inclusion, attitudes towards inclusive practices in French Immersion (FI), Universal Design for Learning (UDL), Technology, Response to Intervention (RTI), Project/Inquiry-Based Learning (P/I-BL) and their impact on student learning. The literature in the field of inclusive practice provides knowledge about strategies for supporting neurodiverse learners to ensure they are able to achieve success. These strategies can also be implemented in French Immersion (FI) classrooms just as they can in English classrooms, to ensure the success of all learners. Inclusion needs to be synonymous with equity and justice. Rawls (1971) posits that

[t]he intuitive idea is that since everyone's well-being depends upon a scheme of cooperation without which no one could have a satisfactory life, the division of advantages should be such as to draw forth the willing cooperation of everyone taking part in it, including those less well situated. (p.15)

Inclusion is the “scheme of cooperation” without which struggling students cannot hope to have a satisfactory chance at success.

Inclusion in Canada

Inclusion in Canada dates back to the “entrenching” (Katz, 2015) of equal rights for visible minorities, women, members of the LGBTQ community and people with disabilities in the Canadian Charter of Rights and Freedoms in 1985. In Canada, all ten provinces and three territories are responsible for their own educational policies and while provincial curricula

are responsive to the diverse needs of Canadians, it has also created disharmony between the provinces with regard to the ways in which the needs of students with exceptionalities

are met. This structure has allowed some stellar educational programmes to develop while at the same time stifling the development of a cohesive, comprehensive, national approach to ensuring inclusion is practiced in all Canadian schools. (p.44)

Thompson, Lyons and Timmons (2015) conducted “a five-year Community-University Research Alliance funded project that focuses on policy and disability in Canada” (p.121). The *raison d’être* for their research was to study inclusion policies from the point of view of teachers’ associations in four Canadian jurisdictions. They wanted a clear understanding of each association’s definition of inclusion and to be able to

(a) explore[d] the extent to which provincial/territorial leaders of teacher associations are aware of inclusive education legislation and policy in their respective jurisdictions; (b) investigate[d] whether, and how, this information is shared with their membership; and (c) identify[d] salient issues from the perspective of leaders within teacher associations. (p.124)

They discovered that generally speaking, while Canadian teachers’ associations are aware of inclusion policies and endorse them, they vary from one association to the next, just as they vary from one province to the next. Even definitions of what constitutes a disability vary, policies about who would “qualify” (p.127) for placement in a regular classroom were different based on the availability of adequate support.

This is significant because this difference in policy across school jurisdictions and teachers’ associations is representative of the problems with the efficient implementation of inclusion. If the very definition of inclusion is inconsistent across the country, then this is part of the problem with teachers’ inconsistent understanding of inclusion and by extension their knowledge of inclusive practice.

Thompson et al. (2015) see a different iteration of inclusion; inclusion as transformation of educational structures and pedagogy with an increasing emphasis on the need to build teacher capacity to teach all students... particularly in the absence of providing teachers with the training for which they are asking. Teachers are required to provide instruction for students with an increasing array of characteristics, backgrounds, and capabilities; for many, this may not be the way they have been taught to teach (p. 136).

FI student populations are just as neurodiverse as English students. Just as students in regular programs are entitled to appropriate academic supports, so are FI students. The limitation to this study is that there is no information about whether there were FI schools in these jurisdictions and whether the definition of inclusion included what inclusion should look like in FI schools.

Wise's (2011) research highlighted the lack of qualified FI teachers and teachers who have both FI and Special Education qualifications. With fewer supports in FI schools, it is becoming more important for FI teachers to be able to incorporate inclusive practices into their classrooms. Arnett and Mady (2009) suggest that part of the problem is that FI teachers are not always trained well enough to recognize student struggles and then to know what to do to assist struggling learners. They cite an example of an Ontario mother (a French teacher herself) and her struggles to have her son identified as having special needs. Even when it became obvious to everyone that her son couldn't read, the principal still refused to allow him access to special education services because "immersion was considered an enrichment program where such support was deemed unnecessary" (p.41). Arnett and Mady (2009) also highlight that in FI, interventions are typically based on a "wait to fail approach" and are deficit-based as opposed to

inclusive practices which favor looking at what the student knows, understands and is able to do (p.41). They ask the following two important questions:

Which pedagogical interventions are needed to support students who are currently having or at-risk for having problems in the program and what is the knowledge base teachers (in both Immersion and special education programs) would need in order to provide meaningful support to the students? (p.45)

Arnett and Mady (2009) point to a lack of research into the subject of inclusion in FI, suggesting that inclusive practices are not adequately taught in FI pre-service education and imply that perhaps FI teachers still do not see the need to be inclusive. It could be argued that teachers cannot be inclusive when they are not trained to understand it and to know how to put it into practice. It is increasingly important for FI teachers to be able to recognize learning difficulties early and then be able to support students as much as possible in the classroom. The intent of this study to investigate what inclusive practices Canadian FI teachers understand and utilize and whether they know how to implement them into their classroom. The hope is to be able to pinpoint areas where FI teachers could benefit from additional training and professional development.

The Arnett and Mady (2009) and Thompson et al.(2015) studies point to a disconnect between what inclusion means in different provinces and different school jurisdictions. Thompson et al. (2015) also found that different school jurisdictions have different definitions of inclusion and even differences in who “qualifies” for inclusion. If teachers across Canada, and in line with this study, FI teachers, are to implement inclusion properly, there should be consistency at least across provinces about what inclusion means, how it is to be implemented and there should be no question as to who can be included in inclusion. Teachers, who are

ultimately responsible for inclusive practices need to have a clear understanding of what it is and how to be inclusive. It is unreasonable for school jurisdictions to claim that their schools are inclusive when the very people who are tasked with inclusion are unclear about how to proceed. Furthermore, in order to decrease attrition among struggling FI students, teachers need to be appropriately qualified to teach French methodology and to recognize student challenges. As the nature of the profession changes, teachers require efficient professional development that helps them to keep up with the increasing and ever-varying needs of learners in their classrooms.

Attitudes towards Inclusive Practices

In a subsequent study, Arnett and Mady (2014) examined preconceived notions that FI teachers bring with them into their practice from their own experiences as students and as student teachers. They conducted interviews and administered a questionnaire through several teacher training programs and then six months later administered a post-study questionnaire. The results were that some pre-service FI teachers come into their practice with negative ideas towards the idea of exceptional learners in FI. This attitude will of course, make success for these students much more challenging. Some of the pre-service FI teachers who participated in the study agreed that their coursework did influence their attitude towards exceptional learners. Arnett and Mady (2014) posit that more research is needed in this area but that ultimately, “perhaps there would be value in ensuring that pre-service candidates had access to certain experiences on their path to their own classrooms, so as to mitigate some of these negatives” (p. 455).

Arnett and Mady’s study was conducted using an “online mechanism for collecting responses to a questionnaire” with a three-week question response time. The surveys were given at the beginning and end of the practicum terms to ascertain if there had been a change in attitude. The results from the second questionnaire indicated that six of the eleven participants had

changed their views about the presence of students with learning disabilities (LD) in French as a Second Language (FSL) classrooms. The participants also expressed that the inclusive practices they used fit well with their teaching styles. This was quite different from the results of the first questionnaire which indicated that the majority of students questioned whether exceptional students could benefit from FSL learning.

One of the limitations of these study is that there is no information about which inclusive practices were used. It only says that the inclusive practices used fit well with the participants' teaching styles. It would have been good to know more about their teaching styles and which inclusive practices worked well. It would have been more instructional to know what effect the inclusive practices used had on the students. Although it is good for pre-service teachers to see inclusive practices as being a positive when they work well with their individual teaching styles, it could be argued that it is more important to know how they were able to use inclusive practices to assist neurodiverse learners. It also doesn't say if any of these pre-service teachers were working with FI learners. Again, it is becoming increasingly important to see more studies being conducted in FI settings particularly with the increase in neurodiverse learners being enrolled in FI schools.

Another limitation is that some of the conclusions drawn are slightly speculative given that there is no detailed data about what is or is not being taught about how to differentiate for exceptional learners in pre-service teacher training. Some of the negative attitudes of student teachers towards exceptional learners might be changed if there were more courses and more practicum guided by teachers proficiently trained in how to differentiate for exceptional learners. FI teachers cannot be properly inclusive if they have not received training to be able to do so and this should ideally start with pre-service teachers.

Sharma and Sokal (2016) conducted a study to ascertain whether there was a link between “teachers’ actual classroom practices and three self-reported constructs (attitudes, concerns, and teaching efficacy)” (p. 31). Although a large number of invitations were issued, only five teachers agreed to participate in the observation, and the authors suggest that this might be because they use inclusive practices in their classrooms. They further suggest that a larger sample would have been better and recommend that more studies with larger sample sizes are needed.

What Sharma and Sokal (2016) found is that there is a “positive relationship[s] of teachers’ inclusive practices in the classroom with their self-efficacy for implementing inclusive practices and attitudes toward inclusion, as well as the negative relationship between their inclusive practices and concerns toward inclusion” (p.31). This makes sense in that in order to be able to implement something as potentially complicated as inclusive practices in an effective manner, teachers would need to have a positive attitude and know and understand how inclusive practices help with all students. Sharma and Sokal (2016) go on to explain that there is not a lot of research into teachers’ “attitudes, efficacy and concerns” (p.32) perhaps due to a lack of teachers amenable to observation and the necessary tools required to observe inclusive practice in action. They also found that teachers who employ inclusive practices in their classrooms not only have a more optimistic attitude towards inclusion and neurodiverse learners, but their level of concern around academic achievement is lower. They speculate that

[i]t may be possible that such beliefs develop as a result of teachers noticing that inclusive practices help both students with and without disabilities. Rather than a decline in academic standards, most students (with and without disabilities) do well both academically and socially in inclusive classrooms. (p.32-2)

Participants in both these studies agree that inclusive practices help students to succeed. While the first study does not demonstrate whether the participants continued on using inclusive practices, the second study, although very small, clearly demonstrates how inclusive practices can contribute to more academic success and how this extremely small group of teachers, in employing them are more relaxed and open to inclusion in their classrooms. The fact that the sampling is so small makes it impossible to come to any generalized conclusions about the success or failure of utilizing inclusive practice. This also reinforces the need for more studies on inclusive practices and answers to questions about why so few teachers are willing to participate in studies. In addition to the limitations mentioned by the authors, it would have been more informative to have some examples of which inclusive practices these teachers were employing. It would also have been enlightening to have some history of the journey these teachers took in order to become more inclusive. Teachers can learn from the experiences of other teachers who implement changes in their practices but it is also comforting to know that experiencing challenges while making changes is not a unique situation. It is the same in French Immersion classrooms: teachers making significant changes in their practice can be helped by the experiences of other teachers. Sharma and Sokal (2016) recommend more research into the concerns teachers have about inclusion and

suggest that such students are likely to get high-quality education in the classrooms of teachers who have lower degrees of concerns about inclusion. Policymakers and school leaders should make an attempt to understand what concerns educators about teaching in inclusive classrooms and address their concerns. This goal can be accomplished by providing custom-made professional development programs targeting teachers' concerns in school (p.33).

Conversely, Stegemann (2013) conducted a study in the semi-rural Kamloops/Thompson School District in British Columbia. Participants were recruited through school district email, but it doesn't specify how many of the approximately 500 teachers and 100 administrators participated in the anonymous survey. In addition to the same concerns expressed about lack of training and lack of support in other studies, Stegemann (2013) noted that

high school teachers differed significantly from elementary school teachers, believing that inclusion of students with special needs can detract from the education of other students and were less convinced that children with special needs can achieve success in the general education classroom. (p.6)

Elementary school administrators expressed more positive attitudes about neurodiverse learners' ability to achieve alongside their classmates in regular classrooms. They were however, concerned about teachers not having enough training, enough time to prepare and work collaboratively and "preconceived or stereotyped opinions (even by students)" (p.7). There were no differences in opinions expressed by administrators in rural versus urban schools.

Stegemann (2013) did specify that "[a]ccessing expertise and guidance for teaching staff can also be difficult in geographically large rural or semi-rural districts" (p.4). Another challenge is "that rural teachers need even more support than their urban counterparts in order to address the needs for on-site professional development and technical support, and to bolster administrative leadership" (p.4). She did not specify how many if any of the participants were from FI schools.

Strengths of this study were that the researcher specified that it was a semi-rural district and offered some insights into the differences and challenges faced by teachers in rural districts. It would have been interesting to know how many teachers participated in this study and then to

see a breakdown of how many were from rural and urban settings and then how many were from FI schools particularly with the difference in levels of optimism from the participants of the other two studies.

There is such a dearth of information about attitudes towards inclusion in FI schools that it could be argued that inclusive practices are not commonplace in FI classrooms and with the increase in students with special needs being enrolled in FI, it needs to become an automatic part of the FI classroom reality just as it is in English mainstream classrooms. This researcher's study was designed to investigate what a small group of Canadian FI teachers understand about inclusive practices and to what extent. The goal of this study is to fill a small gap in the knowledge about how inclusive practices can be implemented in FI classrooms and perhaps assist FI teachers to begin to attend to the needs of struggling FI learners.

Inclusive Practices

The term neurodiversity is not a new term. Armstrong (2015) uses the term with respect to learning disabilities, ADHD, Autism Spectrum Disorders, Intellectual Disabilities and Emotional/Behavioral Disorders (p.5). Inclusive practice makes learning more equitable and makes success more attainable for all learners. Rentenbach (2017) asserts that, "when you treat someone as their highest self, you help them become that person" (p.60). Inclusive practice for neurodiverse learners allow for the students' strengths to be discovered and acknowledged. The student can then become a learner who, with assistance and guidance, can meet his own academic goals. While neurodiverse learners still require more or targeted interventions and instruction, this does not mean they are not capable of learning. As Armstrong (2015) reminds us, the teacher's responsibility is to discover what neurodiverse learners require in order to blossom (p.11).

Universal design for learning.

Universal Design for Learning (UDL) is a means of attending to the diverse learning needs of all students in a classroom. It is used as a first step in differentiation that benefits all students in a classroom. Research on UDL as implemented in a variety of classrooms has explored its benefits for student learning.

Three-block model of UDL.***What is the three-block model of udl?***

Katz' (2013) work deepens the understanding of UDL in the sense that she explains why it is important to use it in differentiating for students. She specifies that while accessibility to learning tools in a classroom is important, it is not sufficient to build meaningful participation. Katz' model involves the "systems and structures" of learning, "instructional practice" and "social and emotional learning". Katz' Three Block Model "promotes four pillars: Self-worth, Belonging, Cognitive challenge, and Social learning (<http://www.threeblockmodel.com/the-three-block-model-of-udl.html>)."

The effects of the three-block model of udl.

Katz (2016) describes two studies conducted on a total of 103 teachers. The studies were to analyze the effects of the Three-Block Model on teachers' concerns about inclusion and the on their practice.

The two studies involved a 5-day programme:

introduction to the model followed by collaborative time planning, observing and problem-solving...Open-ended questions included, 'What would help you to further develop your Inclusive Instructional Practice'; 'Tell us about your experience with UDL'; 'What were the outcomes for you, your students, colleagues and families?'; and 'What

were the challenges?'. (p.898)

Teachers in the control group mentioned that students with severe disabilities were having outcomes “modified” for them. This was important because as Katz (2016) reiterates, teachers find adapting for students with significant disabilities to be very challenging.

Courey, Tappe, Siker and LePage (2012) conducted a study of 45 students in a “Mild to Moderate Graduate Level 1” course in a special education teacher program at a university in California. They wanted to examine the effects that training teachers in special education programs to use UDL in regular classrooms in order to benefit all students and not just students with mild to moderate disabilities. The purpose of this study was to investigate whether this small group of pre-service teachers would be able to apply UDL in their planning and delivery of lessons in their practice.

The students in the study had an average of 1.3 years of teaching experience, but most had no experience at all. These students were chosen because they were taking a course on how to differentiate instruction for a variety of students and UDL was simply added to the course.

Students were required to write 3 lesson plans for the study: one right at the beginning of the semester which was designed to find out how much students knew about UDL, one right after three-hour training and one at the end of the semester. For the first two lesson plans, students were given scenarios to plan for which included the IEP goals for exceptional learners. For the final lesson plan, students were asked to create their own scenarios to plan for with hypothetical exceptional learners. The students did demonstrate a comprehension of UDL and an improvement in their ability to include UDL strategies in their lesson planning so to that end, the three-hour training was considered a success.

A limitation of the study is that participants were limited to one university in California and therefore the sample size is too small to come to any generalized conclusions about what pre-service teachers are learning about UDL. It is not clear how much instruction was given about the implementation of UDL except that there was a three-hour training at the beginning of the class. It is good that students were given scenarios to help them plan for their exceptional learners but there is no information about whether these participants were taught how to use UDL to plan for the rest of the class. Another limitation is that there is no way to follow up with the students to ascertain whether they are actually implementing these strategies in their classrooms now that they are certificated teachers. Again, it would be interesting to conduct such a study in Canada in a FI teacher preparation program to see what pre-service FI generalists understand about inclusion and inclusive practices. It would be good to implement this type of training in French Immersion teacher training programs, particularly to change the perception that there are very few if any exceptional learners in French Immersion.

The results from these studies were that the pre-service teacher training given on inclusive practices and specifically UDL did have a positive effect on their “self-efficacy for inclusive teaching” (p.898); however, the same could not be said of the in-service teacher participants who would not have received any training in inclusive practices during their teacher training. Again, the results of this study demonstrate that attitudes towards inclusion can be changed with training but there is no follow-up to see if the pre-service teacher participants are more likely to continue on with what they have learned once they have their own classrooms. In-service teacher participants, after receiving some training, saw differences in their students’ achievement and this prompted an increase in confidence about using more inclusive practices. There was still no follow-up to investigate whether this led to permanent increases in inclusive

teaching. There is also no information about what these participants knew about UDL before and how much their understanding increased after. Another limitation was how little information there was about the participants, grade levels and subject areas taught etc. These two studies help to build on the knowledge about how training both in preservice teacher education and in professional development for seasoned teachers can help to build confidence as well as understanding in order to implement UDL. The gaps in the knowledge are in whether or not participants saw value in UDL and whether or not they implemented what they learned. There is also a gap in the knowledge as to how much understanding participants had after the study. Armstrong (2012) reminds us that UDL is a tool designed to remove barriers to learning. These two studies reinforce that before UDL can be used to remove barriers to student learning, the obstacles to teachers understanding of UDL must also be removed. This is significant to the FI classroom too as FI teachers also need to have the same obstacles removed in order to assist struggling students. This researcher's survey is designed to answer questions about what FI teachers know and understand about how to remove barriers in their students learning in order to decrease attrition and ultimately to set all FI learners up for success.

While it is always great to see some progress, this study would have been more complete had there been French Immersion teachers specifically studied because despite the fact that teaching in FI is different, the need for UDL is the same.

Technology as a part of UDL.

Pellerin (2013) conducted a two-year collaborative action research into "e-inclusion". She explains that:

Although e-inclusion calls on the use of digital technologies to support and scaffold learning, it is important to understand that the focus is not on the digital technologies

themselves. Instead, e-inclusion creates an educational context in which the learning experiences of all learners are maximized... The significance of these previous findings for the present inquiry is that e-inclusion promotes the adoption of instructional strategies that make use of digital technologies as pedagogical tools to support, scaffold, and enhance learning for all students. (p.50)

Pellerin's study involved 12 EFI teachers and their students from two FI K-4 schools in a town south of Calgary, AB. Classes from these two schools received 4-6 iPods and two iPads as well as carts of laptops to be shared thanks to Alberta School Initiative for School Improvement (AIS) funding. Pellerin also received funding from the University of Alberta Campus St. Jean.

A qualitative collaborative action research (CAR) was used to collect data in this study.

The data collection information was quotes from teachers involved in the study.

Participants reported feeling empowered from learning how to use new technology. This allowed the teachers to adopt new instructional strategies that included more individualized and guided practice, as well as a more student-centered approach... once the routines were established, students became quite capable of working more independently... (p.51)

Gaudet (2013) also conducted a Collaborative Action Research study on using technology to enrich second language acquisition. The school dual-track in Airdrie, AB at which he was Assistant Principal, had experienced a growth in enrollment and as a result had more students enrolled with complex needs. This study came from a need for teachers to make changes in their practices to better accommodate all their learners.

The participants in this study were 19 FI teachers in the school. The school was given a grant to enable teachers to work collaboratively to ascertain the impact on the levels of French language acquisition. The participants were given four-five iPods and one iPad per class.

Teachers were given release time to meet in small groups with an administrator to reflect on four areas: “French language acquisition, assessment practices, mobile devices as tools to accelerate student learning, and action research as a method of enhancing personal professional teacher practice” (p.1).

These studies were refreshing to read since they both dealt specifically with FI classrooms. Pellerin identifies a need for more technology in the classroom but suggests that instead of viewing technology as a tool to empower struggling students, it should be used as a tool to empower all learners. In fact, even though technology is not the only component of UDL, it an integral part and as such needs to be made available to all students.

Both Pellerin's (2013) and Gaudet's (2013) studies serve to strengthen the importance of the question about what FI teachers understand about UDL and technology and how to efficiently use them in their practices. In order to be able to set exceptional learners in FI up for success, it is necessary to increase teacher knowledge and capacity in terms of how UDL can assist all students, particularly the accessibility of technology.

Strengths of these studies were that with the increased technology in the class, teachers found differentiation was easier to do, in part due to increased levels of engagement and self-direction but also there was also an increase in teacher capacity and self-confidence around the technology piece. Teachers in Gaudet's (2013) study noted challenges with the limited amount of devices in the classroom, less impact on writing than they had expected and challenges around “building teacher capacity and expertise around a newly emerging and constantly changing field”

(p.8). Several recommendations for future research included whether teacher attitudes were likely to change with the “potential to remove learning barriers with tools such as mobile devices” (p.9).

While both studies outline the collaboration that took place among the teachers, the improvements to student self-direction and even to a lesser extent the increased differentiation that happened, there is no information about teacher buy-in, whether it took an extended period of time to begin to notice changes and whether there was any extra PD involved. There are no details about the differentiation that took place. It could be assumed from what little was said that the differentiation was done as a part of the UDL strategies but there was nothing specified about what was done for exceptional students. These studies further demonstrate the need to know what teachers understand about inclusive practice and what implementation looks like in a classroom. The sample sizes were also very small and therefore no generalized conclusions can be drawn from them about the efficacy of technology in the classroom. Another important point is that technology in classrooms is only useful in the hands of teachers who understand the true value of technology, know how to use them efficiently and are able to train students to use them in a manner that enriches their learning. There is a dearth of information about the use of technology as part of UDL in the classroom. This is an important issue to research as teachers need to understand more about how technology can contribute to inclusive practices in classroom. This is particularly true in FI schools as often, there are not enough resources in French for teachers to use. Technology not only provides added assistance to students but also offers a myriad of resources at teachers’ fingertips and so while they are differentiating instruction for all of their learners, they also have access to more French resources, such as games, videos, stories, information to research etc.

Implementation of Response to Intervention

The Response to Intervention (RTI) model begins with assessments designed as a precursor to targeted instruction personalized to each individual student. It is the next step once it has become apparent that UDL strategies are not sufficient to meet a student's need. It is a three-tiered approach to differentiating learning that begins with students receiving initial instruction as a group. Students who understand well enough where and how to proceed and only asking for assistance on an as needed basis (Tier 1) can begin to work independently. This group of students usually comprises upwards of 80% of the class (McIntosh, MacKay, Andreou, Brown, Mathews, Gietz & Bennett, 2011). Students who require additional support then receive interventions at differing levels of intensity. With continual monitoring and assessment, interventions can be tweaked or changed altogether on an as-needed basis.

Fisher and Frey (2011) conducted a two-year study of a high school staff to examine how they implemented Response to Intervention into their school to increase student success and decrease drop-out. This study came about due to the concerns that RTI was being mistaken for a more complex method for pre-referral instead of being a method for providing quality instruction to students culminating in a referral for special education services. Another concern was that RTI is more widely used in elementary schools and focuses more on the interventions at a Tier 2 level and there have not been any studies done to reflect the impact of whole school implementation, particularly at the high school level.

Fisher and Frey's (2011) two year case study was conducted in an urban southwestern high school in the US that did not have RTI implemented in their school. One of the things that made this school ideal was that they "did not have a long history of failed initiatives to overcome,

making it an ideal place for faculty and administrators to design a system for instruction and intervention” (p.101). The participants consisted of the 23 teachers in the school.

Teachers attended 60 professional development sessions over the two-year period and “focused on quality core instruction and supplemental interventions” (p.101). All of the 23 participating teachers had differing opinions on whether interventions were part of their responsibilities. Not all of the participants were completely committed to RTI by the end of the study and “buy-in with the teachers was an ongoing process as we engaged in professional development and experienced increased success” (p.101). There were challenges for example, with collaborative work but at the end of the study, there was an increase in many classes to “50% of the instructional minutes devoted to student-to-student interaction with the content” (p.105). Another improvement was that by the end of the study only 12% of the students had failed a class and those students were enrolled in a class to make up the course. Once progress-monitoring was put into place, an obvious shift was observed in Tier 2 small group intervention and more support was being offered to students in these groups. The one area where not a lot of definitive change was observed was in the interventions for Tier 3 groups. Most teachers were in agreement that it was not realistic for them to be conducting individualized Tier 3 interventions and that this responsibility should fall on special education teachers. Fisher and Frey (2011) are reluctant to say definitively that the implementation of RTI was the cause of the improvements in student achievement but there was an increase in many areas including attendance and a decrease in special education referrals.

Castillo, March, Stockslager and Hines (2015) conducted a survey of teachers’ perceptions of their own RTI skills and how it relates to their abilities to implement RTI in their classrooms. Their data was collected in the spring of 2008 and again in the spring of 2010.

The target group of elementary school teachers were to fill out a skills survey “designed to assess perceived skills across five broad areas: (a) data-based decision making, (b) tiered service delivery, (c) the problem-solving process, (d) data collection, and (e) data analysis and technology use” (p. 96). The sample was comprised of 1879 teachers (mostly generalists) with a range of experience and education from 62 schools across 8 school districts in a southeastern state in the US.

Participants filled out surveys and there was training available for “coaches” who also completed Tier I and Tier II checklists as part of the study. Castillo et al. (2015) posit,

Researchers suggest that skill development is a necessary prerequisite for educators to implement new practices. However, researchers also suggest that many other factors at the educator (e.g., beliefs), school (e.g., leadership, climate), and district and state (e.g., policies and procedures) levels contribute to whether practices are implemented with fidelity (p.102).

The main limitation of Fisher’s and Frey’s (2011) study was that it was conducted in one school with an extremely small amount of participants. Like some of the other studies presented in this paper, a sample size that small does not allow for generalized conclusions to be drawn. Since there was only the one school, the researchers were able to really focus on supporting the participants which is good, but it would have been more informative to see how the participants fared with the implementation with less support or at least decreasing support . It would also have been illuminating to see the results of the same study done across the US with different demographics. For example, the results would have been interesting from a high needs area. This study is extremely vague about the clientele served by the school. It would also be informative to see such a study completed in Canada and in keeping with the question for this thesis, a FI

program. The study conducted by Castillo et al. (2015) was stronger in that there was a much larger group of participants. It also suggested that there were several factors contributing to the efficiency of implementation of inclusive practice and that it is not just on the teachers to implement them. In order to properly implement inclusive practice, teachers need support from school boards in the form of PD and as suggested by Castillo et al. (2015), district policies and procedures.

In order to at least begin to make changes, people need to know how to. This is again the basis of the thesis question: what do FI teachers understand about inclusive practices and which ones do they utilize? For FI teachers to be able to use inclusive practices in their classrooms to accommodate all their learners, they need to understand what those practices are, how to implement them and see the value of implementing inclusive practices in their classrooms to use with their neurodiverse learners. It also does not help that inclusion looks different across the country, therefore making inclusive practice look different everywhere. In addition, more research is needed to demonstrate how inclusive practices can be successfully implemented into FI classrooms.

Project/Inquiry-Based Learning

PBL is becoming better known particularly since “there has been an influx in reform-based curricular materials that emphasize inquiry and problem-solving approaches while supporting the development of twenty-first century skills” (Park Rogers, Cross, Gresalfi, Trauth-Nare and Buck, 2011, p. 893).

An efficient way to combine UDL, RTI and technology is to teach using these concepts through Project/Inquiry-Based Learning. UDL and technology are excellent ways to adapt instruction and learning tasks to suit all learners and RTI can be used for learners requiring more

targeted instruction, chunking and scaffolding after it has become apparent that technology combined with other UDL strategies are not sufficient. All this can be done to assist struggling learners while students who feel they are ready to take on the project engage in research independently. Park Rogers et al.(2011) describe PBL to be:

the learning of basic disciplinary concepts within the context of real-world problems that students find relevant to their everyday life. This approach stems from constructivist conceptions of teaching and learning where primary importance is placed on the way learners attempt to make sense of what they are learning (p. 897).

The constructivist nature of PBL for supporting diverse student learners is very compelling. However, research suggests that teacher understanding and implementation of PBL might not be sufficient to achieve its potential. This paper will review the findings of studies conducted by Park Rogers et al. (2011) and Wurdinger, Haar, Hugg and Bezon (2007) which investigate teacher understanding of PBL.

Park Rogers et al.(2011) conducted a study designed to examine how teachers in their first year of implementing a technology-based PBL came together to overcome challenges associated with their different teaching styles.

The participants were three mathematics, biology and English teachers from two mid-western US high schools; one urban and one suburban.

Data was collected from interviews from participating teachers over the course of a year. Each of the interviews focused on unit planning, how the teachers saw the content they needed to plan for and how to implement the curriculum into their planning. The participants also filled our questionnaires about their teaching philosophies in the form of teaching scenarios for which they

indicated their agreement using a Likert Scale. There was also some PD available over the course of the year.

Upon analyzing the data, researchers found that all three teachers had different approaches to implementing PBL. The data was then reanalyzed and sorted to answer three questions:

(1) personal perspectives on teaching and how the PBL approach influenced change in these perspectives; (2) the compatibility of PBL with the teachers' perceived goals to meet students' needs for learning..., with an understanding that the notion of learning is different for each teacher; and (3) the issues/struggles these teachers experienced (and perceived their students' experienced)... and how they tried (if at all) to work through them. (p.902).

One teacher viewed PBL as an excellent way to teach 21st century skills while the other two commented on the increased student engagement they saw. All three teachers reported spending less time lecturing and while two teachers saw their roles more as facilitators of learning, the third saw himself more as a manager. He also felt that PBL was less effective for struggling students and as a result of this he limited how deeply he implemented PBL into his teaching. This denotes a miscomprehension of the purpose of PBL, how it works and the value it brings to a classroom, in particular, how multiple entry points can streamline learning for neurodiverse learners.

With this information, the researchers came to the conclusion that for this small group of three participants, PBL was extremely challenging to implement and might require a significant shift from the teacher and the students' point of view. For example, one of the teachers had a traditional view towards teaching and learning and as a result, he struggled to find ways to implement PBL into his teaching. Regardless of this, as with the other two teachers, he was able

to acknowledge “significant instructional shifts” by the end of the first year of implementation which is important (p.912).

Wurdinger et al. (2007) at the request of and together with a principal of a middle school in Minnesota designed a research project to measure the effectiveness of PBL in a middle school. Instruments used were surveys and interviews and staff received training. In the initial survey, participants were asked what was their definition of PBL, if they had previously used PBL in their classrooms and to provide an example and to list some challenges and benefits associated with using PBL in their classrooms. Following the survey, teachers received a six-hour professional development on how to implement PBL.

The results of the first survey showed that teachers in this school had a weak knowledge of what PBL was. By the end, most of them were using PBL in their classrooms, reporting improved problem-solving skills, “variety of strengths were mentioned in response to question 4, what are the strengths of using project-based learning, including, promotes discussion and peer teaching, enhances student ownership, increases higher order thinking and life skills, and promotes group cohesiveness” (p.157), and several of the teachers interviewed said they were employing PBL approximately 90% of the time. Wurdinger et al. (2007) suggest “that motivation and student engagement may have been enhanced because students were placed in a situation where they had to work together with their peers to achieve common objectives (p.158). They further posit that, “Without teacher acceptance, implementing innovative approaches in the classroom like project-based learning are dead in the water” (p.158). In order to implement inclusive practices, teachers have to buy-in and see the value that comes from using them in their classrooms. Just as students need to understand concepts being taught to them, teachers need to understand how these practices work and if possible, see them modeled.

The limitation of both these studies is that one only included three high school teachers and the other was conducted in one school. While a shift in instructional methods is needed in high schools, it was good that one of the studies was conducted among middle school teachers. It would be illuminating to see the results of a larger group of participants and a comparison with elementary teachers; and particularly the challenges K-3 teachers would face implementing PBL into their practices. With regards to the research question, it would be instructive to see how PBL could be implemented into FI classrooms and what challenges FI teachers would face trying to balance content and second language acquisition with PBL.

Gaps in the research

There is very much a dearth of studies on inclusive practices in English classrooms. There are articles written about inclusive practices but there are very few studies published about the advantages to using inclusive practices and the increase in students engagement and achievement. The research is even more scant when it comes to FI classrooms. Inclusive practices are becoming increasingly important for FI teachers with the increase in exceptional students enrolled in FI classes. Arnett and Mady (2009) and Thompson et al. (2015) speak of a difficulty among FI teachers to recognize the nature of student struggles and a disconnect between the definition of inclusion between provinces and school jurisdictions as well as the differences in who “qualifies” for inclusion. Arnett and Mady (2014) found increased optimism towards inclusion and Sharma and Sokal (2016) found a more positive attitude and increased self-efficacy in teachers who had been trained and had some experience implementing inclusive practices. They also point out the difficulty around getting teachers to participate in studies and research. It is challenging to conduct studies on a subject where there is no clear definition, no consistent policies to govern it and of which very few people have a concrete understanding.

Courey et al. (2012), Katz (2016), Castillo et al. (2015), Fisher and Frey (2011), Park Rogers et al and Wurdinger et al.(2007) all saw a positive change in attitude and self-efficacy and an increase in teacher buy-in towards UDL, RTI and PBL with targeted professional development. Pellerin and Gaudet were both able to study the positive impact of technology as a part of UDL to empower teachers in the implementation of UDL in their classrooms and to enrich the learning of all students.

All FI students deserve an education and FI students with neurodiverse needs and abilities require support for success. A variety of inclusive practices such as UDL, RTI, P/B-L appear to offer some effective frameworks and teaching/learning models to support student success. Studies on inclusive practices in English mainstream classrooms like those cited in this paper suggest that teachers do not as of yet completely understand and implement strategies consistently. FI teachers, based on the cited studies of their perceptions of learners with disabilities, seem to need support in understanding and implementing inclusive practices. Therefore, because of these factors, and because of the dearth of research on inclusive practices in FI classrooms, this study will explore which inclusive practices FI teachers understand and implement.

Chapter 3: Methods

Question

This study attempts to answer the question, “Which inclusive practices do French Immersion (FI) understand and utilize?” In order to understand why student attrition can be attributed to a lack of success in FI, it is important to know what FI teachers have learned about inclusion and how to address the needs of neurodiverse learners. This study posed 20 closed and short answer questions designed to ascertain what FI teachers know about Universal Design for Learning, Response to Intervention and Project/Inquiry-Based Learning.

Survey Research

The purpose of this study was to find out what this small group of participant FI teachers know and understand about inclusive practices. Data was collected from survey research which served to find out which if any inclusive practices are being used in French Immersion classrooms across the country. Survey research was selected because it provided the potential of reaching a broad perspective of FI teacher participants along with the ethical protection of anonymity of responses. According to Weigold, Weigold and Russell (2012),

Compared with traditional data collection methods, such as paper-and-pencil, potential benefits of using the Internet to gather research participants include drawing larger, more diverse samples, accessing difficult-to-reach populations, limiting the costs of survey administration, and eliminating the need for data entry” .(p.1)

Social networking was used to recruit potential participants without having to mail surveys and run the risk of having no one respond.

This research was conducted using a cross-sectional survey because surveys gather data at a particular point in time with the intention of describing the nature of existing conditions, or

identifying standards against which existing conditions can be compared, or determining the relationships that exist between specific events (Cohen, Manion, Morrison, 2013, p.169).

Cross-sectional surveys are an appropriate research method to use because they are inexpensive to conduct, they are simpler and data collection is faster (Cohen et al., 2013, p.176). This research aimed to find out what participants understand about inclusive practices and which ones they utilize; the survey contained straightforward questions designed to find an answer to that question and to differentiate between different primary and secondary and between teachers of different age groups.

Participants and Recruitment

The potential participants were approximately 30,000 Canadian and International FI teachers who are members of closed Facebook groups. Although international FI teachers were able to see the recruitment letter and had access to the links to the survey, participants were asked where they lived and worked and all 54 participants self-reported to live and work in Canada. From the information that potential participants reported on the Facebook Group pages, it is impossible to tell how many of them were international and how many were Canadian. The only information that is possible to report is the answers to the questions from participants. The participants in this small group were mainly primary and secondary teachers and some were student support teachers, music teachers and administrators. Due to the anonymous nature of the survey, it was impossible to tell where the participants live except for which province they are from. Therefore, there was no way to know if they were from rural or urban settings.

A link to a survey was posted on closed French Immersion Teacher group pages on Facebook. The survey was made available in English and French to facilitate honest and detailed answers to the survey questions. A detailed explanation and goals of the study was also posted

on the groups' Facebook pages. Participation was voluntary and participants were able to withdraw any time before submitting the survey. Because the only relationship we had was online, there was no risk of power or undue influence and the anonymous nature of the surveys made for a much lower risk of identification of participants. The survey was available from May 30th - 2018-July 4th, 2018 at which time the links were removed from the Facebook groups' pages.

Data Collection

Participants answered questions based on what they knew about Universal Design for Learning, Response to Intervention and Project/Inquiry-Based Learning. Through their answers, they had a limited opportunity to showcase what they know about these inclusive practices and how they use them in their classrooms. The completed surveys were divided into elementary and secondary and then the elementary group was subdivided into primary and intermediate grades. There were separate sub-groupings for school support teachers and administrators. There were only 54 participants so further regrouping by grade level was not possible.

The survey questions were a mix of multiple choice closed questions and open-ended short answer questions. The methodology was mixed quantitative and qualitative. The first group of questions was intended to find out where the participants live and what they teach. The second group of questions was about what FI teachers know and understand about UDL, what strategies they are implementing in their classrooms and whether they use them for all learners or just struggling learners. The third group of questions probed into whether participants are familiar with RTI model strategies and what they are using in their classrooms. The final group of questions was intended to ascertain whether teachers are familiar with P/I-BL, whether they use it and whether they see value in it. There was a question at the end that asked whether participants believe they would benefit from more professional development or training on

inclusive practice. This question was posed to find out whether participants are interested in learning more about inclusive practice and to possibly encourage the expression of engagement or frustrations associated with inclusion.

Data analysis and Interpretation

The quantitative data was gleaned from the closed questions, through commonalities in the short answer questions and displayed in the form of charts where possible. The qualitative data was collected through what teachers said about which inclusive practices they use in their classrooms and how they use them. The survey consisted of 20 questions; some multiple choice closed questions and some open-ended short answer questions. This was a mixed methods research because to only collect quantitative data would not answer the research question sufficiently. Cohen, Manion and Morrison (2011) specify that

Research is driven by research questions (which are often more than one in number and which require both quantitative and qualitative data to answer them)...mixed methods researchers must write up their research in such a way that the quantitative and qualitative components are mutually illuminating. (p.23-4)

The data was analyzed to ascertain how many from this small group of participants have knowledge of inclusive practices and how they are using these practices in their classrooms. It was analyzed for common themes in the open short answer questions. For example, it was interesting to see, from the answers participants gave to the short answer questions, how many of them understand the Response to Intervention model. It was also enlightening to know how many participants feel that there is no real need for inclusive practices because struggling learners should transfer to English programs. The comments section at the end of the survey was

put there for participants to express their professional opinions and was analyzed for coding and thematic development.

Limitations

The main limitation of this study is that despite the large number of potential participants, the number of actual participants was too small to be able to draw any generalized conclusions about FI teachers understand about inclusive practices and which one they are utilizing in their classrooms. The study can provide an idea of what this small group of FI teachers understands about how inclusive practices are implemented.

Another limitation is that although the Facebook FI teacher groups span the country, it was difficult to get an equal number of participants from each province. It would have been beneficial to have more of an idea of what is happening in each province and territory.

An additional limitation of this study is that it is not possible to observe the participants to see first-hand which inclusive practices they implement in their classrooms. It would be beneficial to be able to see which UDL strategies are being used to assist all students in classrooms and then to see how RTI is being used to support students requiring extra and targeted support.

Value of the Study

The main limitation of this study was that because the sample was so small, there is no way to make a generalized conclusion about what FI teachers know as a whole about inclusive practices. However, this study served to demonstrate two results. It demonstrated how much this small group of FI teachers understand about inclusive practices and how well they believe they are implementing these practices in their classrooms for their students, and it suggested that this group of FI teachers felt they could benefit from more professional development or training

courses on inclusive practices and how to differentiate for exceptional learners. The results were interesting because the first result uncovered an inconsistency in what this group of FI teachers understands about inclusive practices. The second result demonstrated a possible need for more consistent PD to be provided so that these participants can enrich their practices and understand better how to differentiate for their exceptional learners. It may also serve to fill in a gap in previous studies about inclusive practice in FI classrooms.

Chapter 4: Data Analysis

Purpose of the Study

The purpose of the study was to ascertain what French Immersion teachers know about Universal Design for Learning, Response to Intervention and Project/Inquiry-Based Learning. A 20 item survey was conducted in English and in French in Google Forms. Links to the forms and the privacy statements were posted on 12 French immersion teacher Facebook group pages. The total amount of potential participants from these Facebook groups was approximately 30,000 Canadian and International FI teachers, from which 378 people viewed the surveys, 54 people took the surveys, 41 of which took the English survey and 13 took the French survey. The questions were mostly multiple choice questions and a few short answer questions designed to find out what the participants understood about each of the three topics (Universal Design For Learning, Response To Intervention and Project/Inquiry-Based Learning) and which if any inclusive practices they were using in their classrooms. There was also a question about whether they thought they would benefit from more professional development and why or why not.

The question

This study was designed to answer the question: “What inclusive practices do French Immersion teachers understand and utilize?” The survey was conducted among FI teachers who are members of various Facebook groups across Canada to see if Canadian FI teachers understand inclusive practice and which ones they are employing in their classrooms. As Pellerin (2013) asserts, there is a high percentage of attrition among neurodiverse French Immersion students and it is important to know why this is happening and if there is something that can be done to remedy it.

Profiles of the participants

The 41 English responses came from Alberta, British Columbia, Manitoba, New Brunswick, Ontario, Québec and Saskatchewan. 13 were from Alberta, seven were from BC, one each from New Brunswick, Manitoba and Québec, three from Saskatchewan and 15 from Ontario.

15 were K-3 teachers, 21 were grade 4-7 teachers, eight taught grades 8-9, three taught grades 10-12, five were student support teachers and of the remaining, one each were an administrator, a music teacher, a teacher-librarian and a tutor.

The 13 French responses came from Alberta, British Columbia, Ontario, Manitoba and Québec. One response was from Alberta, four were from British Columbia, one each was from Manitoba and Ontario and six from Québec.

Two participants were K-3 teachers, two were grades 4-7 teachers, three taught grades 8-9, three taught grades 7-12 and three were student support teachers.

Universal Design for Learning

Edyburn (2010) states that Universal Design for Learning, provides flexibility in the ways information is presented...ways students demonstrate knowledge and skills...reduces barriers, provides appropriate accommodations, supports and challenges...maintains high achievement expectations for all students including students with disabilities...(p.34)

Edyburn (2010) further expresses a concern that educators and administrators are not familiar enough with UDL to be able to implement it in the classroom. One of his proposals for how to make it work is that educators need to understand that UDL is not limited to adding technology to projects and that to truly implement UDL, educators need to “proactively value

diversity” (p.36) and to deliberately design differentiated learning tasks. He further specifies that UDL is not assistive technologies (p.36-38). UDL is meant to offer all students in the classroom alternative ways to showcase what they are learning. Redford (2018) clarifies that, “UDL suggests a fundamental shift in how we understand learning challenges. It puts an emphasis on remediating the *classroom* rather than the *student*” (p.1).

Edyburn (2010) reminds us that while UDL is not assistive technologies, he specifies that adding technology provides an “array and flexibility of supports” that traditional paper instructional aids cannot compete with (p.38). While this is particularly true with students who struggle with reading/comprehension and writing, the same can be said for students who do not experience challenges in their learning. UDL offers average and gifted learners the opportunity to develop new and important 21st century skills in that it affords them the chance to be more innovative with their presentation choices. Edyburn (2010) also suggests that the basic premise of UDL is instructional design and problem-solving with technology as the “delivery system” (p.37). These UDL strategies can also be applied in FI classrooms just as they would be in regular English classrooms. Technology can just as easily be added as a delivery system to instructional design in FI and student voice and choice is just as important in French. The question is whether FI teachers are familiar enough with the concept of UDL strategies and tools to be able to use them alongside traditional French language methodologies in which they have been trained.

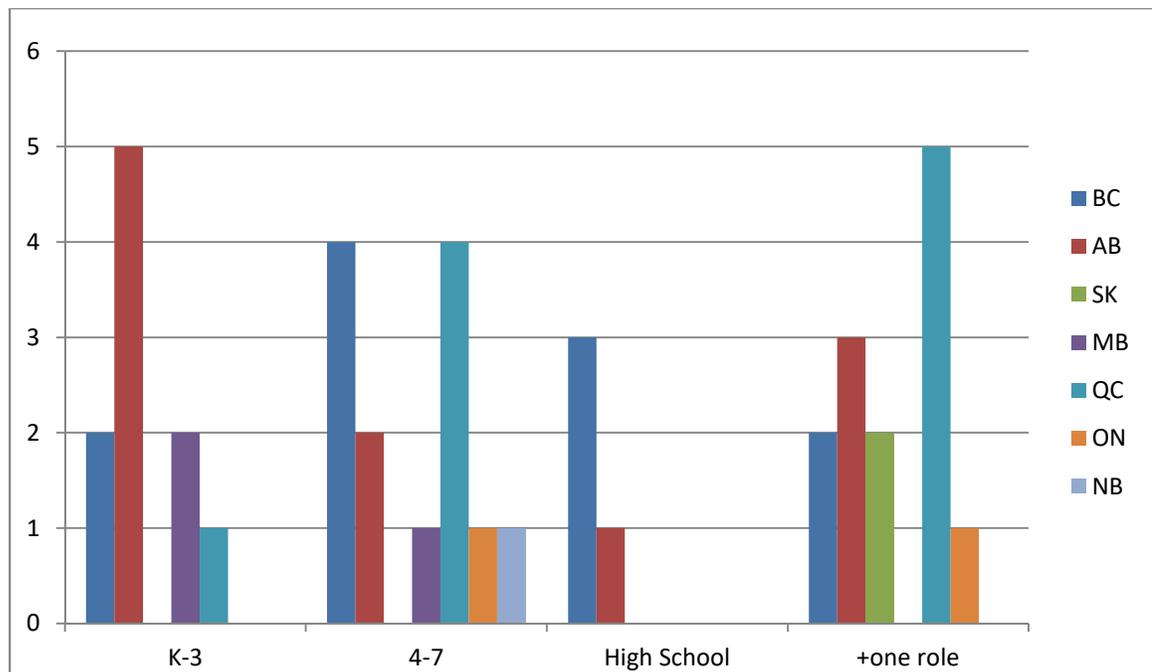
Of the 54 participants, 14 (26%) did not know what Universal Design for Learning was. One participant said that they had heard of it, did not know much about it but upon researching it recognized the definition as something that was being done in Québec and was able to define it as a way of teaching that benefits all learners. This admission leads to a question about whether

educators are using UDL strategies without recognizing it. Edyburn (2010) flatly rejects this idea positing that UDL is not simply something educators do and do not have a name for it, nor does not happen naturally. He goes on to state that,

UDL must be recognized as a learned skill, one that is refined over time, to produce high levels of performance... We must refocus our efforts to train the key stakeholders in UDL principles that make meaningful differences in student engagement and learning.
(p.38)

It also reinforces the weakness in the study that answers were all self-reported and therefore it is not possible to observe these teachers in their classrooms and be able to see if and how they are using UDL strategies. According to Moore, Smith, Hollingshead and Wojcik (2017), “that while the topic of UDL may be growing in teacher education programs, the depth and breadth of its understanding as a framework has room for growth” (p.41).

Numbers of participants who said they did understand UDL:



The data shown in the table suggests that more of the participants from British Columbia, Alberta and Ontario understand UDL; however, it is important to note that more participants came from these provinces and the populations of these three provinces are also larger.

Of the answers to the question, “Please give an example of UDL strategies you use in your classroom”, the most common answers included visual supports, checklists, flexible seating, differentiated expectations. All but three of the participants said that they used UDL strategies with all their learners. Two said they only use them with some of their learners and one said they only use UDL with struggling learners. This denotes a misconception among some members of this group of FI teachers of what UDL strategies are because the word “universal” in the name implies that these strategies can/should be used for all learners. What is missing from this list are the academic ways to differentiate learning. For example, there are multiple ways for students to use technology to demonstrate what they have learned through their projects such as PowerPoint, Prezi and web/podcast or simply a poster or booklet. UDL can also be formative assessment to help a student know how to proceed in their questioning and then lead to constructive feedback on their progress. UDL also determines access for students, encouraging the use of technology in the classroom. Students with diagnosed disabilities and IEPs are not the only students who can benefit from speech-to-text programs, audio books, larger print and different colour overlays or background choices. Alternative work spaces (different corners/areas of the classroom, on the floor, standing or sitting, out in the hall or in the library etc.), the choice to work in a group or independently, noise-blocking headphones, music and muted lighting as well as desks that move up and down can also help many students. Teachers can use Smartboards to play interactive games, model writing skills, show videos and have students show what they know to their peers to enrich learning. UDL provides a myriad of methods to create engagement and differentiated

learning for students with and without diagnosed needs, all of which can easily serve the same purpose in FI classrooms. Thematic analysis of the answer to the question about UDL strategies used found that this small sample of FI teachers is familiar enough with adaptations to the physical space but most neglected to list the other types of UDL tools and adaptations that are possible. This demonstrates a need for more training for this small group of teachers about what tools and strategies constitute UDL, the benefits for all students and how to implement them in the classroom.

The findings from the study demonstrate that the participants who were familiar with UDL were aware of some the adaptations that could be made to the physical space. There were some gaps in the participants' knowledge of what constitutes UDL strategies and 26% of participants were not familiar with UDL at all. UDL is the first step towards inclusive practice. When considering how these data answer the question, "What do FI teachers understand about inclusive practices and which ones do they utilize?" the results of the study suggest that this small group of participants fairly consistently across divisions and across the country understand some UDL strategies. Generally, they do not seem to understand all the possibilities nor have a comprehensive enough knowledge to implement UDL confidently in their classrooms.

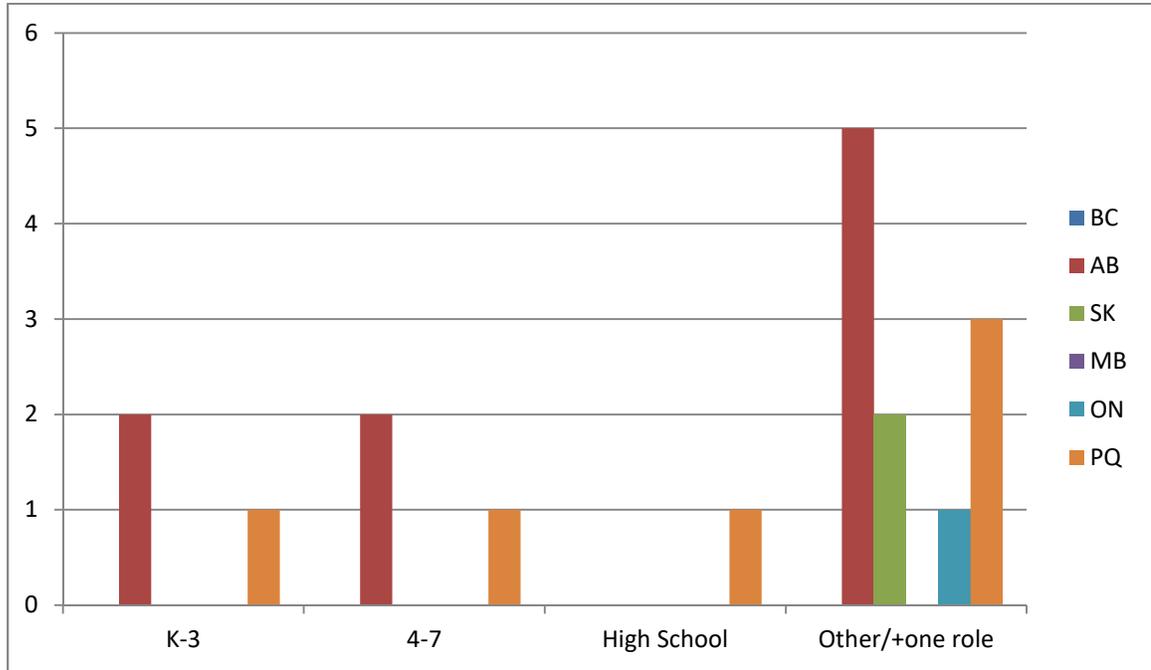
Response to Intervention Model

Westwood (2017) reminds us that The Response to Intervention model (RTI) is a three-tiered framework. It begins with teaching a concept to the whole class, sometimes using direct instruction and then supplementing with technology and group work. The purposes of this model is to ascertain which students have understood the concept and are ready to work independently (Tier 1) and which students will require supplementary and/or differentiated instruction (Tier 2) or more targeted interventions (Tier 3). RTI is more complex for teachers to put into place in

their classrooms. It is one of the ways that French Immersion teachers can attend to the needs of neurodiverse learners while giving more independent learners the chance to work on their own, thus encouraging and maintaining engagement. It is also an effective way to zero in on areas that require specific intervention early, a means to assess student progress frequently and to evaluate their response to the interventions being conducted “while making good use of their strengths” (Westwood, p.xiii). Because the teacher is working on targeted areas of weakness, monitoring progress and reassessing on a continual basis, this is an effective way to personalize learning to a specific student. RTI is also an effective way for educators to encourage more independent students to further develop their language skills while the classroom teacher is assisting struggling students in areas which are more challenging for them so they can keep up with their classmates. Questions in this section of the survey were intended to discover what the participants knew about RTI and what strategies they used to differentiate learning through this method.

The numbers of participants who understood RTI were primarily from Alberta where nine participants claimed to understand it. 31 of the 54 participants did not know what the RTI Model was. Three of the participants believed that they understood what RTI was but their descriptions were more related to UDL strategies. From the extremely small numbers of participants in this chart who claim to understand RTI as an inclusive practice, it is clear that some of them were not familiar with how it works and therefore how to implement it despite school board and provincial policies.

Numbers of participants who said they understood the RTI model



Thematic analysis of the question about RTI strategies used in classrooms suggests that of the people who claimed to understand RTI, most of them knew it was a tiered approach but no one mentioned specifics about how it was used in their school/classroom. Some mentioned that they had 30 minute pull-outs every day for students with difficulties in reading or math. No one suggested that RTI should be used all day in all subject areas and how this might be accomplished. Barrio and Combes (2014) echo this finding and suggest,

One consistent finding is that teacher preparation is key to effective implementation and positive student outcomes related to RTI...there is a lack of uniformity in the implementation of RTI, as school districts and states are often confused about the manner in which RTI should be implemented. (p.2)

In 2015, Towle put out a report on special education policies across Canada. In it she mentions that there is no federal legislation on inclusion because education is a provincial matter and that although each province has special education policies, the definition of inclusion and how it is implemented vary from one province to the next (p.5). She posits that “many provinces and territories have not updated their special education policies in over 10 years; consequently, not all inclusive education policies are up-to-date with current educational standards, or with the international covenants of which Canada is a signatory” (p.21).

McIntosh et al. (2011) mention several Canadian provinces that use RTI either for identifying ongoing student difficulties, diagnosing learning disabilities or in some cases to support individual student needs. In Nova Scotia RTI is one of the options available for designating a student who has a discrepancy of three or four grade levels in his “academic and expected” (p.31) achievement. In British Columbia, learning disabilities are defined as “persistent difficulties with learning” (p. 31) which leaves room for RTI in that the difficulties are documented by assessment data collection outlining multiple attempts to address students’ needs through various adaptations. Many school psychologists in New Brunswick are using an “RTI approach with a focus on curriculum-based assessment and classroom interventions” (p. 32). In Saskatchewan, the ministry of Education encourages the use of the three-tiered model of student support. In 2009, Alberta Education implemented reforms to “bridge the current gap between general and special education through inclusive education” (p. 32) focusing on “use of progress monitoring data to identify student success, and a systems-level approach to building capacity for effective support” (p.32). They also cite several examples of individual school boards across the country that have implemented the use of RTI in the classroom for example,

for literacy and social behavior intervention (p.31-34). In terms of provincial special education policies around inclusive practices, they argue that:

The lack of a federal ministry of education or national education policies, though a drawback in terms of large-scale reform, allows for regional variations. In absence of a federally mandated methodological approach, provinces and districts can use innovative approaches, which could indicate the most effective methodologies for RTI in the Canadian context. (McIntosh et al. p.35)

While it is true that provinces can “use innovative approaches” (p.35), it poses the question: how there is ever going to be any consistency in teacher knowledge of how to implement and use RTI in their classrooms? Another question is if there are no specific policies about inclusive practices, how can teachers be expected to know about them? It is clear that most of the participants in this study did not feel that they understood RTI as an inclusive practice despite school board and provincial policies.

Danielson, Doolittle and Bradley (2007) point out that

[s]uccessful implementation of RTI is multifaceted and involves knowledge of evidence-based interventions, multitiered intervention models, screening, assessment and progress monitoring, administering interventions with a high degree of integrity, support and coordinated efforts across all levels of staff and leadership within the school, and sustaining systems of prevention grounded in an RTI framework. (p. 632-3)

This is a daunting task, even if it is implemented school-wide. Teachers have to be able to handle all of this and be able to properly attend to the needs of all their other students simultaneously. In order to be able to accomplish all of this efficiently, a teacher (and other team members) has to be well-trained and has to know exactly how to do all of this. Teachers need to

understand “formative progress monitoring” that occurs during the instruction to make sure the instruction is appropriate, “benchmark progress monitoring” which involves data collection to ensure the student is making progress as a result of the interventions and summative outcome assessment which is used at the end of a school year to measure student success in terms of grade-level outcomes and to guide in planning future interventions (Wixson and Valencia, 2011).

The data from the study revealed that several of the participants did not know what RTI was. It is important to understand what it is, but for RTI to be implemented in a classroom, it is important to understand all the components of RTI, how it works and what the goals are. Participants’ stating that they are familiar with RTI does not constitute a guarantee that it is being used in the classroom in an efficient fashion and this links back to one of the limitations of the study which was about the inability to observe how RTI is being implemented in classrooms.

The results of the survey once again demonstrated a lack of consistency in the knowledge of this small group of participants on RTI model strategies. It is difficult to have a clear picture of what they are implementing in their classrooms since there is no way to observe first hand which strategies are being used. In considering the knowledge, training and in-service to support RTI as an inclusive practice, there is no evidence of how much has been provided to FI schools. It is also interesting to remember that according to McIntosh et al. (2011) and Bunch (2015), there is no consistent definition of inclusion and what it looks like across Canada. There is also nothing mandated about inclusive practices and what specifically constitutes inclusive practices.

Project/Inquiry-Based Learning

According to Larmer, Mergendoller and Boss (2015),
the goal of projects was to foster student motivation by encouraging students to freely decide the “purposes” they wanted to pursue... [U]nless students were given unfettered

voice and choice, schoolwork would only be drudgery and this would alienate students and be counterproductive to the ultimate educational goal of producing productive citizens. (p.27)

P/I-BL is one way to teach outcomes in authentic ways that encourage students to use concepts taught in class and to see how those concepts actually work. A teacher who is well-trained in P/I-BL can incorporate several outcomes from different subject areas, increase engagement in students and encourage questioning. Larmer et al. (2015) go on to point out that although it is challenging for teachers to implement P/I-BL in their classrooms due to scheduling, time constraints, assessment expectations, increasing neurodiversity, the amount of content there is to cover, and of course in French Immersion, this all has to be done in a second language. They conclude by positing that once teachers are able to overcome their initial difficulties, they see value in P/I-BL.

Thematic analysis of the answers to questions around Project/Inquiry-Based Learning suggested that all of the participants were familiar with it to various degrees but again, there was a lack of consistency in the knowledge of the possibilities for student success associated with implementing P/I-BL. One participant pointed out that P/I-BL helps to increase engagement because “students are driving the learning. Instead of the teacher lecturing students get to research and interact with the material on a deeper level. There is also a greater opportunity to be creative.” Several participants mentioned increased engagement because students can research based on their own interests. One participant mentioned learning to evaluate the validity of resources and assessing whose point of view is being represented versus whose is not. They also mentioned that the teacher does not give students “the right answer”. This model of teaching and learning aligns with Hattie’s (2009) visible learning:

Visible learning occurs when learning is the explicit goal, when it is appropriately challenging, when the teacher and student in their various ways seek to ascertain whether and to what degree the challenging goal is attained, when there is deliberate practice aimed at attaining mastery, when there is feedback given and sought...(p.18)

It is interesting to note that no one mentioned the value of formative assessment in conjunction with scaffolding and chunking of learning tasks and project sections to help neurodiverse students to understand how to proceed. This again denotes a certain lack of understanding of the possibilities for success for struggling students using P/I-BL.

Only two participants answered that they did not see value in P/I-BL and both expressed frustration at the lack of support. One participant from Alberta commented,

I find in elementary school it doesn't increase engagement as there is the student that understands and does a lot of the work and those who coast along for the "ride"... The challenge is that it was mandated in our province and French Immersion was in the past the reason that most families who have diverse needs would not choose it. We are now teaching students with varying levels of Autism, Down Syndrome, sensory needs and we have been given zero training on how best to meet their needs.

This comment and other similar comments point to this group of FI teachers feeling ill-equipped to teach struggling students. This suggests that more professional development is required for FI teachers to better understand how to differentiate for all learners.

According to Ryan and Deci (2017),

Although SDT (Self-Determination Theory) suggests that children are intrinsically motivated to learn... many schools fail to capitalize on student's intrinsic motivation and instead emphasize extrinsic motivators...Substantial evidence shows that autonomy-

supportive versus controlling teaching strategies foster more autonomous forms of motivation in students and the higher quality engagement, performance and positive experience associate with it (p. 351).

P/I-BL is an autonomous learning strategy and the ability for students to guide their own learning can be an extremely engaging process. Lam, Cheng and Ma (2009) report that “a teaching strategy providing choices could produce dramatic increases in students' intrinsic motivation and engagement in learning” (p.567).

The other participant from Ontario who saw no value in P/I-BL commented that “it increases engagement if you have resources that are accessible to your students but this RARELY occurs in immersion.” It could be argued that inclusive practices such as UDL, RTI and P/I-BL, when efficiently implemented could improve student achievement and students would “struggle” less. Instead, students’ motivation to achieve would rise and so too would their success. The argument again is for more training in the art of inclusive practices particularly in FI so that teachers are able to properly support students who struggle. This can be in a team-teaching capacity when a support teacher or other team member is present but also independently when there is no other supplementary support present.

Of the 54 participants, there were 13 who declared themselves as beginners to using P/I-BL and wanted to learn more. The larger division was a group of three participants from Alberta who either had more than one teaching role or a non-enrolling role within their schools. In terms of respondents who felt they had some knowledge of P/I-BL, the larger group was the three K-3 teachers from Alberta. The larger group of four participants who felt they were expanding their knowledge of P/I-BL was the group of grades 4-7 teachers from Ontario. In addition, there were two participants, both grades 4-7 teachers who felt they were experts in the area of P/I-BL. They

pointed out that the advantages to P/I-BL are that “students are more invested in their learning” and that “students have choice and voice and are able to share their learning in diverse ways”.

From the data, it seems that the group of grade 4-7 teachers encompassed the greater number of teachers who were either expanding their knowledge of P/I-BL or were experts. One participant shared:

Every student can be as successful in an FI classroom as they can be in any other classroom. FI teachers need to differentiate, accommodate, and support all learners. The value for the student is that they will be able to speak French, which will help them regardless of their grade in reading and writing. The challenges arise when there is no SERT (Special Education Resource Teacher) support for these students, while they would receive support in a regular classroom.

From the data collected as part of this study, there is no way to say that more people from one province had more knowledge over another province; however it would point to grade 4-7 teachers participants in this study as being slightly more familiar with P/I-BL (6/54 participants). What the data appears to say is that there is an inconsistency in what this group of French Immersion teachers knows and understand about inclusive practices. When a teacher administers a summative assessment to her class in math, for example, and the results are this diverse, the teacher would then need to reteach the material to make sure that the largest number of students has understood the concept. Using the RTI model, the teacher would then be able to tend to the students who need more targeted instruction. In this scenario, it is impossible to tell which group of participants needs more targeted professional development on inclusive practices and therefore it would seem that everyone could benefit from clarification about each of UDL, RTI

and P/I-BL and then professional development on inclusive practices, how and when to use them and how to decrease the rate of attrition from French Immersion programs.

The data collected from this group of FI teachers suggests that they are familiar with P/I-BL but again, there is no real way to know what is being implemented in classrooms. The small group who felt they were experts on the subject of P/I-BL answered the questions in line with the literature in that they understood the value of students being able to demonstrate their learning through projects in different ways and that it is more engaging for students to have voice and choice in their learning. It is interesting to note that of the 54 participants, only two felt comfortable enough with P/I-BL to state they felt they had a certain amount of expertise which paired with the six other participants who felt they had some understanding of it points to the Grade 4-7 teachers in this group having a slightly deeper understanding of P/I-BL. This suggests that more professional development would help to enrich this group's knowledge and ability to implement it in their classrooms but also to help the participants who would like to know more about it. It's a positive that they see value in it enough to want to learn more.

Professional Development

According to Tim Loreman (2014),

The extent to which teachers and school staff feel prepared to implement inclusive practices governs, to a great degree, the success of inclusion at the school and classroom level. Many teachers do not feel that they have the necessary skills to implement inclusion, and so professional development and teacher education should reflect the provision of opportunities for staff to learn effective pedagogical approaches (p. 467).

For French Immersion teachers to properly differentiate for struggling students and to create more inclusive classrooms, they need to feel prepared to accommodate all learners and

those who prepare them must help them to develop how they think about their practice and what they are making generally available to the whole class as opposed to seeking the support of specialists to individualize teaching for ‘problematic’ students (Florian & Linklater, 2010).

The last piece of data gleaned from the surveys was how many participants felt they could benefit from more professional development on inclusive practices. 74% of participants felt that they would benefit from more professional development. Their reasons ranged from “professional development should always be ongoing” to

[t]he needs of our students are so diverse now! I would love to be better equipped to accommodate them all. I had a professor that once said ‘what works for your exceptional students will work for all of your students.’ I would love to be able to better help all my students be successful in French immersion.

One participant asserted that,

French immersion used to be quite elite and there was no need for inclusion. I have little to no experience like I do in English. There are few high interest/low reading French resources. Most francophone resources are already over FI heads.

Nine percent of the participants answered that they did not think they would benefit from more professional development. Their answers ranged from “we have had full Inclusion in NB for 20 years and are well versed in inclusionary practices” to “I have already had extensive PD and taught in an English program”. Two of the participants not wanting supplementary PD answered the questions on UDL, RTI and P/I-BL in such a way that they seemed to have an understanding of inclusive practices, two gave answers that demonstrated a burgeoning understanding of how to implement inclusive practices in their classrooms while one participant claimed that inclusion was a waste of their time and they saw no value in pursuing it. 17% of participants answered

maybe to that question with answers that ranged from “I have a very good knowledge already” to the larger group who felt that PD in any form and on any subject is valuable. Three chose not to answer why they thought that maybe they would benefit from more PD. These participants demonstrated some knowledge in one or more of UDL, RTI or P/I-BL but were not familiar with all three, once again, demonstrating an inconsistency in the knowledge of inclusive practices that has been a theme in this study. 74% of participants in this study felt that they would benefit from more PD mainly because they felt that PD is valuable and they recognized a need to understand more about how to address the increasing needs in their classrooms. One participant wanted more PD “particularly in French!” Another declared, “[T]here is always something new to learn”. 26% of participants did not feel that they could benefit from more PD on the subject of inclusive practice. Thematic analysis of their responses pointed to them not seeing value in learning more because they felt that “inclusive practice does not work” in FI. One declared that after having spent years trying to be inclusive, they felt that there was no improvement in students’ results and that “everybody suffers.” Other themes that emerged were that some participants felt that they had had enough PD. Further research would be required to investigate participants’ reasons for these responses, and whether these trends are consistent among teachers in the FI teaching community in Canada.

What does all this mean?

This study answered the question, “What do French Immersion teachers understand about inclusive practices in French Immersion?” in several thematic areas: 1) What do FI teachers understand about UDL and how to use it to differentiate for each of their learners? 2) Do FI teachers understand RTI and how it can be used to focus on students’ specific academic challenges and to create targeted interventions? 3) Do FI teachers understand how to implement

P/I-BL in their classrooms and how it can be an efficient way to teach all learners and allow neurodiverse learners to keep up with their classmates? 4) Do FI teachers feel that they could benefit from more professional development on inclusive practice?

From the answers to the questions about UDL, it would appear that this small group of FI teachers needs clarification on what UDL strategies are. While 74% were familiar enough with it to know that strategies for adapting the physical spaces, working in groups and adapting learning tasks all constituted UDL strategies, many important strategies such as using technology or using traditional paper media to foster voice and choice, having alternate work spaces outside of the classroom, the use of speech-to-text and audio books, different lighting, colour overlays, music, noise-blocking headphones etc. can also be used for all students and not just neurodiverse learners. 48 of the 54 participants claimed to use UDL strategies for all their learners which is positive; however six said they used UDL for some of their learners or only the struggling learners. This demonstrates a certain misunderstanding of the word “universal” in Universal Design for Learning for those participants.

The responses to the questions on RTI were interesting: 65% claimed to not use RTI strategies in their classrooms but 75% answered that they felt the use of RTI strategies helped to motivate learners in their classrooms. This inconsistency also demonstrates a lack of understanding about RTI and its value. It shows that although the majority of this small group of participants understands that differentiated learning and targeted interventions helps students to feel more motivated about their learning, they are not putting RTI into practice which perhaps points to a need for more training on how to efficiently utilize it. A couple of the participants who claimed to understand RTI mentioned strategies that they were using which were actually UDL strategies.

All the participants knew about P/I-BL and all but two saw value in using it. 41% of participants claimed to be expanding their knowledge of P/I-BL, 28% had some knowledge and 24% self-identified as beginners. One participant who was expanding their knowledge of P/I-BL shared:

Our kindergarten program in Ontario is an inquiry-based learning approach and our curriculum is written for inquiry-based learning. One inquiry we did was about dinosaurs. We did measurement in math, how to draw dinosaurs for art, made vocabulary lists for language, made and brushed fossils for science, etc. Each kid was completely engaged and this inquiry lasted for a couple months.

Many participants who claimed to be beginners did not answer the question about how P/I-BL helps to increase engagement. One shared, “[o]utdoor time is providing tons of problems and solutions that children need to figure out.” These results showcase a need among this small group of FI teachers for a deeper understanding of how P/I-BL can help differentiate learning for students with and without diagnosed areas of need. More PD can serve to show teachers how to create engaging projects, foster an inquisitive spirit, encourage questioning and unearth a desire to learn more on different topics of interest. P/I-BL can be a means for students with gifts to showcase their talents, encourage students who do not otherwise struggle with their learning to enrich skills they already have and discover new ones. It can also assist neurodiverse learners to be able to learn alongside their classmates, demonstrate what they have learned and showcase areas of improvement in a variety of ways.

Although this sample of participants is too small to draw any generalized conclusions, this study answered the question, “What do FI teachers understand about inclusive practice?” in that this group of teachers appears to have a small and varying knowledge of inclusive practices.

Some are more familiar than others and some think they understand more than they do. The results of this study suggest a need for more specific, targeted and authentic PD to help teachers see the value of inclusivity for their students and for themselves.

Teacher Attitude Toward Inclusive Practice

Thematic analysis of the question about what participants see as challenges in including neurodiverse students in FI classes list the following issues: the length of time it takes to prepare for struggling students, the lack of adequate support, both in terms of resources and support teachers and the fact that EAs do not always speak French. Most of the participants agreed that FI should be for everyone, that it is an asset and that all should be able to succeed in the program. Only one participant responded,

I used to be in favor for many years. But I am starting to think that no one benefits (students with challenges, ‘average’ students and teachers). After several professional developments and university courses, I realize that struggling students are still losing out. The lack of supplementary support in class and cuts are harmful to good development.

While 50 of the 54 participants had positive comments about diversity in FI, there were still some frustrations expressed at the lack of supports for struggling learners and teachers.

Rodriguez, Saldana and Moreno (2011) support this by positing that

[r]esearch into teachers’ attitudes towards inclusion and students with disabilities has shown that they are very much influenced by variables such as experience, training, and perception of available resources and support...Teacher training also has a powerful influence on the development of attitudes toward inclusion, especially when it incorporates related and specific professional abilities...three types of resources were deemed necessary: training, support from a team of experts, and support in the classroom .

The support of experts and other practitioners is especially valuable when it is accompanied by appropriate collaboration. (p.1)

Thematic analysis of participants' comments suggests that they would appreciate more training because they want to be able to learn more about different ways to teach and that "there is always more to learn." One participant shared that they feel like they are not doing a good job. If nothing else, specific and targeted professional development would help teachers like this participant to feel more comfortable about helping struggling students. Avramidis and Norwich (2002) confirm that

[t]he assumption here is that if teachers receive assistance in mastering the skills required to implement an innovation such as 'inclusion', they will become more committed to the change (and more effective) as their effort and skill increase. (p.142)

Increasing teacher capacity and feelings of self-efficacy are essential if they are expected to address student needs efficiently.

Chapter 5: What's next?

The question, “What do French Immersion Teachers know and understand about inclusive practices?” developed from hearing the same conversations about the suitability of the French Immersion program for students with exceptionalities and from watching those students leave the program to go to English programs. This study found that the small sampling of participants had varying degrees of understanding of inclusive practices. The results demonstrated that even though all the participants were Canadian, there were differences in what participants knew from one province to another. Several participants felt that they would benefit from more professional development on the subject, while several expressed frustration about the lack of resources and support and consequently did not see value in more professional development or for differentiating instruction for struggling learners.

More Questions

The 54 participants in the study came from seven of Canada's ten provinces and three territories suggesting that the need for more knowledge about inclusive practices may be shared by teachers across the country. The results of the study were interesting because there were no groups better versed in knowledge or understanding of inclusive practices. Some of the participants were well-versed in inclusive practices and claimed to use them as a regular part of their practice. Some were familiar with one but not another and some had very little knowledge or understanding of inclusive practices in general.

This lack of consistency in knowledge and understanding across the participants brought up several more questions that could not be answered through the data collected but definitely would be worth answering: is there a correlation between teacher knowledge and understanding of inclusive practices and years of experience? Is there a correlation between teacher attitude

towards inclusion and years of experience? Are inclusive practices being taught in university pre-service teacher programs and if so, how profoundly? Are school boards providing enough professional development for seasoned teachers so they understand what inclusion is and how to implement inclusive practices?

It would be interesting to be able to shadow French Immersion teachers who understand inclusion and see how they are implementing inclusive practices. One of the weaknesses of my study was in that it is not possible to observe teachers in action and to see how many inclusive practices they implement in their classrooms. Observations would also demonstrate how many French immersion teachers do implement inclusive practices in their classrooms and where they could use some more training or mentoring.

Response to Findings

The findings of this study call on districts and educational facilities to reassess what is expected of French Immersion teachers and whether they are receiving enough support to implement inclusive practices in their classrooms. The first thing that needs to be addressed is the differences in the definition of inclusion in the different provinces and the differences in who “qualifies” for inclusion in individual school jurisdictions. The next thing to examine is the lack of consistency in the knowledge of inclusive practices as demonstrated by the participants in this study. French Immersion teachers cannot be expected to implement practices that they do not completely understand.

Teacher Education

Pre-service teacher training.

Another area to investigate is whether pre-service teacher programs are addressing the ever-increasing need to understand inclusive practice. New graduates should be emerging from

teacher training programs well-versed in inclusive practices. The challenge there is whether university instruction is enough and whether pre-service teachers are being given the opportunity to practice being inclusive in their practicum classes. One way to begin the process of educating and training French Immersion teachers about inclusive practices is for pre-service teachers to be practicing it as part of their university training. Universal Design for Learning can be applied to pre-service teacher training on neurodiversity and inclusive practice. Vitelli (2015) states

One potential way by which teacher preparation programs can more effectively prepare general education teachers for inclusive settings is through instruction on Universal Design for Learning (UDL). UDL is a tool for curriculum development that seeks to provide all students, regardless of ability, with opportunities to learn. (p.167)

This same principal of curriculum development that provides all students the ability to learn can be applied to pre-service teachers. Those that understand UDL better can be provided with case studies or opportunities to prepare learning tasks using UDL for students in their practicum classes. By extension, seasoned mentor teachers welcoming pre-service teachers would need to be versed in inclusive practice to be able to offer guidance when needed or to be open to the idea of learning about inclusive practice alongside their student teachers. In this instance, we come full-circle to whether teachers have a deep enough understanding because if the supervising teacher does not understand inclusive practice, they may not understand the need for their pre-service teachers to practice implementing UDL, RTI or P/I-BL. Hurlbut and Tunks (2016) suggest that,

Researchers cite a growing need for embedded RTI practices within teacher preparation programs. According to a 2010 survey by the Florida Problem Solving/RTI Statewide Implementation Project, recent graduates indicated that teacher preparation programs

needed to do more to expand the competencies and skills needed to work with struggling students in a problem-solving or RTI model. (p.27)

An additional area which bears researching is the knowledge that university pre-service professors possess on the subject of inclusive practice. In an interview he gave with Leonardo Tissot, Tobin (2018) states:

In the K-12 world, UDL has been a part of the legal requirements for designing courses and teaching for about 15 years now, throughout the United States and also in many Canadian provinces. However, just because it is the law, it does not mean everyone knows what it is and how to implement it. That is true with our elementary and high school colleagues, and it is doubly so at the higher education level, where there is no legal requirement for colleges and universities to adopt UDL or any other inclusive or accessible design practices in the way that we put our learning interactions together.

(Thomas Tobin, interview by Leonardo Tissot, elearn magazine, March 20, 2018)

Tobin is referring to accessibility in higher education institutions for students with disabilities but the question about whether pre-service teachers are being prepared efficiently enough for the realities of neurodiversity in the classroom and how to be appropriately inclusive for these students brings up another question about whether professors tasked with the job of preparing brand new teachers understand UDL, RTI or P/I-BL. If seasoned teachers have an inconsistent knowledge of inclusive practice and new teachers emerging from university programs do not feel well enough prepared for the reality of inclusion, then perhaps more professional development in this area for university teacher preparation program professors would be beneficial as well.

Professional development for seasoned teachers.

Using the Response to Intervention, teachers address gaps in their students' knowledge by starting at the beginning of a concept and teaching step by step either until the student has grasped the concepts and can proceed independently or until the source of the difficulty has been revealed. Educating seasoned teachers about inclusion and inclusive practices can be addressed the same way. Teachers with more knowledge, understanding and experience with inclusive practices can help to provide professional development for colleagues with less understand and experience, either through on-going workshop series' or mentoring. It would be beneficial in the face of the need for more training for school boards and governments to provide more grants and bursaries for teachers to further their education and deepen their knowledge and understanding of inclusion.

To reiterate what Larmer et al. (2015) suggested, once teachers learn how to implement Project/Inquiry-Based Learning, they will see the value in teaching that way. It is an efficient way to use UDL tools and strategies while differentiating and supplementing instruction for those students who need extra instruction to set them up for success and thus making time and room for students who need more targeted intervention.

A need for more PD is a recurring theme that came from this research. The inconsistency in the responses, for example, participants who understood P/I-BL but did not understand UDL, demonstrates that there is some confusion about inclusive practices. This group of FI teachers needs to better understand what UDL is and how it helps in terms of early intervention. They then need to know how to use the RTI framework to supplement the learning of students who need a little more targeted instruction and then how to work with the students who are struggling on a deeper level and need more intense targeted goal setting and intervention. Project/Inquiry-

Based Learning is a way to pull UDL and RTI together to address students' needs while allowing more independent students to work independently and make use of UDL tools and strategies to test what they have learned and see how it all works. More professional development seems to be necessary for teachers to understand how to implement inclusive practices into their French methodology expertise and by extension to feel capable of that implementation.

Professional development for teachers more often than not is workshops either presented for teachers at individual schools or in larger groups, usually elementary teachers meeting together and secondary teachers also meeting together. These sessions are primarily focused on one topic, lasting half a day or a full day, but not in a series. The professional development required to make inclusive practice more consistent would need to be more than simply one random session sometime during a school year. Porosoff (2014) admits that workshops do not always yield results because there is not necessarily an objective for change for a workshop. For example, she posits that

[T]here should be an end result of a diversity workshop. What should teachers and staff members understand and be able to do? What will they see and hear in hallways and classrooms if this workshop is a success? What resources are best? How will teachers share new understandings and questions? If the goal is met, what happens next? And after that? Who's ensuring the work continues (p. 80)?

To ensure that FI teachers learn or expand their knowledge about inclusive practices, professional development would need to be ongoing. The nature of neurodiversity is changing; students are coming to school with more challenges and although some of those challenges carry the same name, the effect on the students' learning can be quite different. How can schools and school boards ensure that teachers are prepared to efficiently address the increasing

neurodiversity in their classrooms? While there are still special education teachers present in schools, they are not in every classroom every day and classroom teachers need to be able to adapt learning tasks to set their struggling students up for success when the special education teacher is not in the classroom with them. Teachers who are coming out of teacher preparation programs may have had some training on inclusive practice, but like one classroom to another, the teaching styles vary, the content varies, how well the pre-service teacher understood the concepts will vary. Essentially, just as no two students are alike, no two teachers are alike. In FI, teachers, styles, levels of comprehension and implementation of inclusive practices are all different and therefore the ability to implement inclusive practice into French methodology from one teacher to another is going to be different. The suggestion is not that all teachers should use inclusive practices the same way; that would be impossible and considering students all have different needs, that would also be counter-productive. However, teachers, new and seasoned should all be equipped with the same arsenal of strategies that they can draw from. Since not all teachers are in a position where they can return to university, it begs the question of how to train new and seasoned teachers to be able to use inclusive practices in their classrooms and by extension, train new and seasoned FI teachers who are well-versed in traditional French methodology to be able to still teach French but more inclusively, thus, making struggling students feel like they can be successful and learn a second language. How can professional development alone fill in the gaps in FI teacher knowledge about neurodiversity, equity and inclusive practices?

Since PD is not possible in the way teachers would need it in order to better understand inclusion and inclusive practices, one way for teachers to learn more about it on a fairly regular basis is to explore it in professional learning communities (PLC). Stoll and Louis (2007) state

that, “[t]here is no universal definition of a professional learning community, but there is a consensus that you will know that one exists when you can see a group of teachers sharing and critically interrogating their practice in an ongoing, reflective, collaborative, inclusive, learning-oriented, growth promoting way” (p.2). In the absence of a sufficient amount of PD, could teachers not get together during PLC time with the support of administrators and learn about what constitutes inclusive practice? Teachers could meet in grade groups and first research what UDL strategies would be appropriate for their students. They would need to try some of these strategies to not only be familiar with them but comfortable enough to be able to implement them. Katz and Dack (2013) remind us that

student achievement is most influenced by classroom practice, and classroom practice, in turn, is most influenced by teacher learning. Teaching something differently (or rather, better) depends on teachers learning something new. It is the learning that is key here. The requirement to learn new content will always be a part of any professional’s job, teachers included (p.35-6).

Data would be collected to see if and how UDL strategies were improving student achievement. This data would also allow for teachers to see which students were struggling despite having adaptations put into place. This would be a slow process for some but once members of the PLC were familiar with UDL, it would then be time for the PLC to focus on learning about RTI, how it works, what it could look like in each member’s classroom and what the benefits would be to implementing it. Specialist teachers would have a role to play as well especially if they are familiar with RTI and how to use it efficiently. Again, data would be collected to see which interventions were working and to be able to measure the increase in achievement. Eventually, the focus of the PLC could be on how to create meaningful and engaging projects with the end

game of being able to begin with the UDL strategies and moving ahead to RTI when UDL proves to be insufficient for some students. While all of this will take a long time, it is possibly a more efficient way to give teachers the information they need to implement inclusive practices without trying to rely on school board provided PD.

If it is not possible for school boards to offer enough PD offered to help seasoned teachers catch up on what they do not know about inclusive practice, PLCs are an alternative way for teachers to teach themselves and each other about how to implement inclusive practices in their classrooms. The purpose of PLC is to engage in collaborative inquiry either in grade groups or in groups who have a common interest. Katz and Dack (2013) specify that “collaborative inquiry is one of the most powerful enablers of changes in practice that can influence student learning” (p.36). What better way is there to enable change that will allow for teachers to help each other to tend to the needs of their neurodiverse learners?

Limitations

There were several limitations to this study. The first was that the sample size was too small to be able to draw any generalized conclusions about what FI teachers know and understand about implementing inclusive practices in their classrooms. The study did suggest that some FI teachers understand some aspects of inclusion and that some FI teachers see value in learning more about how to differentiate for struggling learners.

Another limitation was that because the participants self-reported on what they understand and are implementing in their classrooms about inclusive practices, there is no way to confirm what is happening in their classrooms. Again, with such a small sampling, it does not give a generalized picture of which practices FI teachers implement.

A third limitation is that it is not possible to tell where PD should be focused in order to help FI teachers know how to implement inclusive practices. The knowledge that this sample of FI teachers has is inconsistent and the study found that the participants knew different things about each of UDL, RTI and P/I-BL. It is difficult to make sure all teachers have the same level of understanding when they are all coming from different provinces and school boards and they all have different definitions of inclusion. A suggestion for how to give FI teachers the training they need is to use PLC time to first explore UDL and the immediate benefits it brings to student learning and achievement. UDL strategies benefit all students and when implemented a few at a time, are not overwhelming. Once UDL strategies have been put into place, PLC time can be used to understand the RTI model. Perhaps district specialist teachers can be brought in to model how RTI works and to teach how to use RTI strategies. Then, P/I-BL can be modeled and taught to demonstrate how doable inclusive practices are.

Summary

There is still a lot of work to be done in the study of inclusion. The field of education is changing rapidly and so too is the nature of student neurodiversity. If FI teachers are to keep up with the increase in neurodiversity in today's classrooms, there needs to be more clarity and specificity in what is expected and how to help neurodiverse students to receive a more equitable learning experience. It would help if all the provinces and territories could agree on the definition of inclusion and what it should look like in a classroom. This study suggests that pre-service, new and seasoned FI teachers could benefit from more professional development. Seasoned teachers who have not taken courses since graduating from their teacher preparation programs may not be properly prepared to efficiently address all of the needs and challenges students bring to school. The challenge for school boards to is to find a way for all teachers to receive

consistent training in inclusive practices. If students are to receive equitable support, it would help if FI teachers all learned similar strategies for addressing neurodiversity.

Just as we want to give all our students the most tools possible to set them up for success, we need to give teachers the most tools possible to set them up for success as well.

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