Nova Scotia Pyramid Model

Annual Report 2020-21

MAY 2022

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Land Acknowledgement

The authors would like to acknowledge that the evaluation of the Pyramid Model was conducted in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq People. This territory is covered by the "Treaties of Peace and Friendship" which Mi'kmaq and Wolastoqiyik (Maliseet) People first signed with the British Crown in 1725. The treaties did not deal with surrender of lands and resources but in fact recognized Mi'kmaq and Wolastoqiyik (Maliseet) title and established the rules for what was to be an ongoing relationship between nations.

We also pay respect to the histories, contributions and legacies of African Nova Scotian communities which have been here for over 400 years.

Common Terms

Educator = Early Childhood Educators that are being coached through Pyramid Model implementation. Previously referred to as Coachees.

Inclusion Coaches = Individuals who are facilitating the coaching through Pyramid Model implementation. Previously referred to as Pyramid Model Coaches or Coaches.

Programs = Regulated Child Care Centres or Pre-primary Programs.

Provincial Leadership Team = State Leadership Team.

Pyramid Model = The Pyramid Model for Promoting Social Emotional Competence in Infants and Young Children.

Acronym List

BoQ: Benchmarks of Quality

DEECD: Department of Education and Early Childhood Development

NSECDIS: Nova Scotia Early Childhood Development Intervention Services

PBS: Positive Behavior Support

PPP: Pre-primary Program

RCC: Regulated Child Care

TPITOS: Teaching Pyramid Infant-Toddler Observation Scale

TPOT: Teaching Pyramid Observation Tool

Introduction

The Pyramid Model for Promoting Social Emotional Competence in Infants and Young Children (referred to as Pyramid Model from this point forward) is an evidence-based, positive behaviour support (PBS) framework for educators to promote social and emotional development and address challenging behaviours (Hemmeter et al., 2008). Using a three-tiered framework, the Pyramid Model organizes evidence-based practices to build the capacity of educators to support all children. The Pyramid Model focuses on five key areas (Figure 1); Effective Workforce, Nurturing and Responsive Relationships, High Quality Supportive Environments, Targeted Social Emotional Supports, and Intensive Interventions. To support all children, a coaching approach to professional development and skill development is taken. The coaching approach supports educators by providing professional development opportunities and a designated Coach to develop new goals and learnings (O'Keefe, 2017).

Figure 1: The Pyramid Model

The goal of the Pyramid Model initiative is to support the social and emotional health of all children across the province. Research has shown that social and emotional development is essential to a child's future academic success and health and well-being (Hemmeter et al., 2008; Rucinski et al., 2018; Voineau & Damian, 2014). This development helps children identify and understand feelings, accurately read and comprehend emotional states in others, manage strong emotions, regulate behaviours, develop empathy for others, and establish and sustain relationships (Voineau & Damian, 2014). These social emotional skills and competencies are interrelated and their development in the early years forms the foundation for later emotional, social, and cognitive adjustment (Papadopoulou et al., 2014). Poor development of social and emotional skills is among the factors that may place children at risk for social adjustment problems, including peer rejection, behaviour problems, and lower academic success (Sciaraffa et al., 2018).

Nova Scotia Context

It is important to begin this report with an acknowledgment that Nova Scotia is in Mi'kma'ki, the ancestral and unceded territory of the Mi'kmaq People. This territory is covered by the "Treaties of Peace and Friendship" which Mi'kmaq and Wolastoqiyik (Maliseet) People first signed with the British Crown in 1725. The treaties did not deal with the surrender of lands and resources but in fact recognized Mi'kmaq and Wolastoqiyik (Maliseet) title and established the rules for what was to be an ongoing relationship between nations.

Nova Scotia (Figure 2) has a population of roughly 969,383 people (Statistics Canada, 2022) and is comprised of mostly rural communities. Over the past several years, communities across the province are becoming increasingly diverse with the introduction of various programs to support immigration.

Most (91%) of the province identified English as being their mother tongue, followed by French (3.1%) and other languages (0.5% Aboriginal Languages; 4.8 Immigrant languages) (Statistics

Figure 2: Map of Canada with Nova Scotia Showcased

Canada, 2017a). The majority of the population identify as having European origins (68.4%) or other North American origins (45.2%), and Nova Scotia is also home to strong Mi'kmaq or North American Aboriginal origin (8.2%) communities and immigrant communities (6.1% of the Nova Scotian population) (Statistics Canada, 2017b). Additionally, Nova Scotia is home to the largest indigenous Black population arriving more than 400 years ago (BCCNS, 2021). African Nova Scotian (descendants of Black Loyalists, Jamaican Maroons, Black Refugees and Caribbean workers) represent 44% of the racially visible population, constituting 2.3% of the total NS population (ANSA, 2022; BCCNS, 2021).

It was estimated that in 2020, there were approximately 42,283 children aged 0-4 within the province (Statistics Canada, 2021). In 2020, 51% of Nova Scotian children aged 2-4 were attending early childhood education and care, with over 73% of eligible children enrolled in the Pre-primary Program (PPP) in the 2020-2021 school year (Akbari et al., 2021). However, recent investments through the Canada-Wide Early Learning and Child Care agreement will further enable access to early learning through a focus on supporting high quality, affordable, and inclusive child care. This agreement will also address workforce issues that have been identified by the ECE sector such as compensation and training.

In Nova Scotia, The Early Development Instrument has been used to assess a child's developmental health at school entry (Offord Centre for Child Studies, 2007). The Early Development Instrument is administered by teachers in Primary and measures five different areas of development: Physical Health and Well-being, Social Competence, Emotional Maturity, Language and Cognitive Development, and Communication Skills and General Knowledge. The 2020 Nova Scotia report highlighted that 25.5% of children in the province were vulnerable in at least one domain, slightly lower than the Canadian average of 27% (Nova Scotia Department of Education and Early Child Development, 2021). Further, 9.4% of children were vulnerable in the *Social Competence* domain, and 9.5% were vulnerable in the *Emotional Maturity* domain. This is a decrease from the 2018 report where 11.2% and 10.5% were

Overview of RCC Cohort

September 2018 - December 2021

Sept 2018 to Aug 2019
Active Programs: 23
Active Educators: 37

Sept 2019 to Aug 2020
Active Programs: 21
Active Educators: 39
New Educators at Fidelity: 1

Programs Joined: 0
Educators Joined: 20

Programs Withdrawn: 2
Educators Withdrawn: 18

Sept 2020 to Aug 2021
Active Programs: 20
Active Educators: 49
New Educators at Fidelity: 6

Programs Joined: 0
Educators Joined: 24

Programs Withdrawn: 1
Educators Withdrawn: 14

Sept 2021 to Dec 2021
Active Programs: 19
Active Educators: 45
New Educators at Fidelity: 2

Programs Joined: 0
Educators Joined: 4

Programs Withdrawn: 1
Educators Withdrawn: 8

Figure 3: Overview of RCC Cohort September 2018 – December 2021

vulnerable in the *Social Competence* and *Emotional Maturity* domains respective. Although there have been decreases in these domains, these results suggest that some children are still entering school without the expected social and emotional skills.

Early childhood education in Nova Scotia is delivered through Regulated Child Care (RCC) and the public education system through PPP. In response to the existing data surrounding the social and emotional competence in the early years, Nova Scotia began implementing the Pyramid Model in

2018 at select RCC centres across the province. This step was intended to help begin to build the capacity of educators to support all children's social and emotional development. RCC centres who were selected to participate in implementing the Pyramid Model provide services to children from birth to five years of age. These play-based programs are licensed by the Nova Scotia Department of Education and Early Childhood Development (DEECD). Twenty-three RCC centres and eight Inclusion Coaches were part of the initial cohort of implementation (referred to as the "RCC Cohort") in 2018. In 2019, 2020 and 2021, the province broadened its implementation of

Overview of PPP Cohort

September 2019 - December 2021

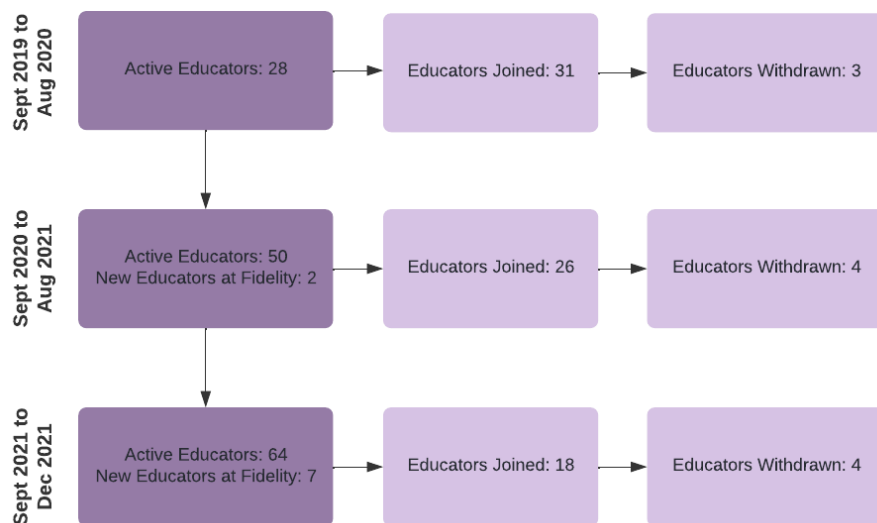|			
Sept 2019 to Aug 2020	Active Educators: 28	Educators Joined: 31	Educators Withdrawn: 3
Sept 2020 to Aug 2021	Active Educators: 50 New Educators at Fidelity: 2	Educators Joined: 26	Educators Withdrawn: 4
Sept 2021 to Dec 2021	Active Educators: 64 New Educators at Fidelity: 7	Educators Joined: 18	Educators Withdrawn: 4

Figure 4: Overview of PPP Cohort September 2019 – December 2021

the Pyramid Model into select PPPs across the province, which is available for children the year before school entry (typically four-year old). The PPP is a play-based, no-fee program operated by a regional centre for education or school board. In total, sixty-four PPPs and eleven Inclusion Coaches were part of the second cohort of implementation (referred to as the "PPP Cohort"). Both cohorts began implementation with a focus on strengthening the knowledge of educators through professional development and implementing the first universal tier for supporting all children through nurturing and responsive relationships and high-quality supportive environments. Figures 3 and 4 provide an overview of the RCC and PPP Cohorts as a whole and reflects the growth and attrition within the program. The overview of the RCC Cohort is illustrated through programs and educators as implementation is at the program level. The overview of the PPP Cohort is illustrated through educators only as implementation is at the regional level, rather than program level.

Purpose of this Annual Report

An evaluation is underway of the implementation of the Pyramid Model in Nova Scotia led by the Early Childhood Collaborative Research Centre at Mount Saint Vincent University. This developmental evaluation is guided by a theory of change which encompasses three drivers: competency, leadership, and organization. These are essential activities that enable the success of the implementation. The theory of change will be discussed in more details in a subsequent section. The purpose of this annual report is to respond to three key questions:

1. How are the competency, leadership and organization drivers influencing the implementation of the Pyramid Model initiative?
2. How has the Pyramid Model influenced change in knowledge and use of effective practice for social and emotional learning?
3. How is the Pyramid Model implementation being supported by Inclusion Coaches and programs?

This annual report findings complement previously reported data in an interim report (October 2019) and first annual report (October 2020) and includes both RCC and the PPP Cohorts. A developmental evaluation approach is used to help facilitate ongoing communication, collaboration and partnerships

between the evaluation team and key stakeholders (Gamble, 2008). With ongoing feedback to the Provincial Leadership Team from the evaluation team, the Provincial Leadership Team can make data-based decisions to ensure success of the implementation across the province. Table 1 illustrates the data that has been collected to date to inform this annual report. A comprehensive list and links to each data tool can be found in Appendix A.

Table 1: Data included in this evaluation report

Data Collection Method	Participants	Dates of Collection
Benchmarks of Quality (BoQ)	Provincial Leadership Team Program Leadership Teams Regional Leadership Teams Inclusion Coaches (RCC, PPP)	June 2018 to February 2022 December 2018 to December 2021 January 2020 to December 2021 January 2020 to September 2021
Surveys	Program Leadership Teams Educators (RCC, PPP) Regional Leadership Teams	November 2020 November 2020 to December 2021 May 2021
Interviews	Inclusion Coaches (RCC, PPP)	August 2021
	Educators (RCC, PPP)	August 2021 to January 2022
	Provincial Leadership Team	December 2021
	Coach Team Leads	December 2021
Teaching Pyramid Model Observation Tool (TPOT)	Educators (RCC) Educators (PPP)	February 2019 to December 2021 October 2019 to December 2021
Teaching Pyramid Infant-Toddler Observation Scale (TPITOS)	Educators (RCC)	February 2019 to December 2021
Coaching Logs	Educators (RCC) Educators (PPP)	April 2019 to December 2021 December 2019 to December 2021
Admin Logs (see Appendix B)	RCCs and PPPs	March 2020 to December 2021
TPOT Observation Coversheets (see Appendix C)	Educators (RCC, PPP)	July 2020 to December 2021

Pyramid Model in Nova Scotia Through the Lens of the Pandemic

Nova Scotia announced its first cases of the SARS-CoV-2 virus (hereafter COVID-19) on March 15th, 2020 (see Figure 5). The Maritime provinces (including Nova Scotia, New Brunswick, and Prince Edward Island) have been recognized for their quick response and the stringent measures put in place to preemptively minimize the spread of the virus. Nova Scotia is a prime example, as the province announced that schools, PPP and RCC were almost immediately closed along with additional restrictions (e.g., required quarantines for those who traveled, a gathering limit, and limited access to indoor public places) until a lockdown was announced in April of 2020. When case numbers slowed, Nova Scotia took a cautious approach by reducing the lockdown measures slowly, increasing the gathering limits and opening public places, with the caveat of requiring the use of non-medical face masks. RCC centres re-opened at 50% capacity, prioritizing the children of essential workers, and slowly increased their capacity over the summer months.

The province maintained its cautious approach with the continuation of restrictions such as mask wearing and gathering limits throughout the summer months and into the fall. Schools and PPP were able to re-open on schedule and RCC centres continued operating under public health guidelines. Children and teachers/educators in schools, PPP and RCC centres were subjected to screening questions, and all were required to stay home and be tested if they presented with two or more symptoms.

Nova Scotia faced its second wave in November of 2020. When a significant rise in cases occurred in one part of the province, the government implemented targeted restrictions further minimizing gathering limits, access to public spaces and discouraging travel to and from the area. By the middle of December, the travel restrictions were lifted but a gathering limit of 10 people was left in place for the holiday season. This rise in cases seemed to spark an awareness of getting tested for COVID-19 as this was highly promoted by Nova Scotia Health and both PCR tests and rapid tests were made available to the public.

The targeted approaches to COVID-19 cases and exposure continued into 2021 and Nova Scotia reported very few cases of COVID-19 until there was a third wave of community spread in April of 2021. As cases began to rise in one part of the province, the government once again implemented a series of targeted restrictions. However, as more cases were reported in other areas, the restrictions and closures were blanketed across the entire province once again. From April into May, smaller gathering limits were implemented and schools and PPP were closed. Schools and PPP were able to reopen in early June. At this point vaccine roll-out had begun, and this continued throughout the summer as restrictions eased alongside the lowering number of daily reported cases. Fall of 2021 saw a substantial increase in gathering limits, however mask usage, testing and self-isolation requirements, and proof of vaccination were required in most settings. Halfway through December of 2021, Nova Scotia saw its highest numbers of COVID-19 due to the Omicron variant. As daily case numbers reached the thousands, individuals were encouraged to keep their social groups small, schools and PPPs closed early for Christmas break on December 17th, and stayed closed until January 17th 2022, with one week of online learning from January 10th to January 17th, 2022.

The implementation of the Pyramid Model was adapted in response to the COVID-19 pandemic and public health directives throughout 2020 and 2021. During the initial lockdown (March and June 2020), coaching visits transitioned from in-person to remote coaching exclusively, which included virtual formats such as video conferencing, emails, and phone contact (calls and texts communication). From June 2020 onward, virtual coaching was still provided as an option as it was applicable. Data collection also adjusted accordingly, with the majority of impacts occurring during provincial shutdowns in spring 2020 (RCC and PPP cohort) and spring 2021 (PPP cohort). To account for many programs spending a large amount of time outside to reduce virus spread, the TPOT Observation Cover Sheet (Appendix C) was created to provide some contextual information
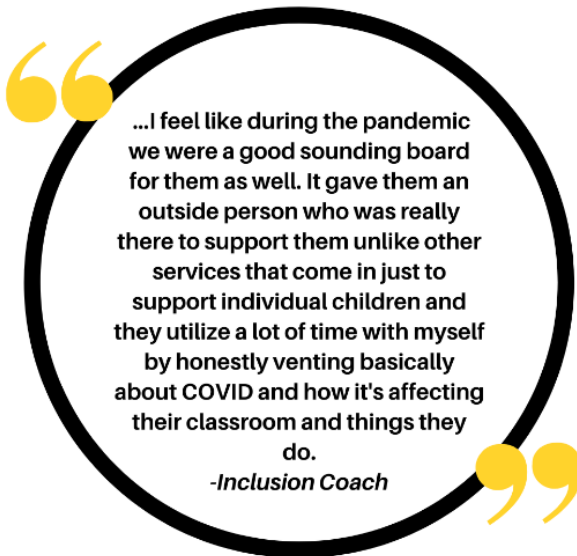
about when, where and how data collection was happening within preschool classroom as outdoor time is typically excluded from TPOT observations.

Timeline of COVID-19 in Nova Scotia

March & April 2020

Nova Scotia reports its first three cases of COVID-19 and declares it's first state of emergency. Schools, Pre-primary Programs and regulated child care centers are closed following March break.

Some Pyramid Model coaching continues virtually throughout the lockdown.

June & July 2020

Regulated child care centers re-open at 50% capacity, with the plan to slowly increase. Families who are able to keep their children home are encouraged to do so.

Some coaches are having difficulties entering programs for coaching due to varying guidelines at centers. Some continue virtual coaching.

TPOTs were previously only conducted indoors, this conflicts with educators adaptations to be outside as much as possible.

As if July 31st, masks are now required in all indoor public places.

September & October 2020

Public schools and Pre-primary Programs have re-opened as scheduled. Regulated child care centers have transitioned to 100% capacity.

TPOT observations are now able to be completed outside. The majority of coaches are able to return to coaching in-person.

November & December 2020

Nova Scotia has entered its second wave of COVID-19. Various restrictions and school and Pre-primary Program closures are scattered across the province in response to local cases.

Regulated child care centers continue to operate.

January & February 2021

Schools and Pre-primary Programs have re-opened as scheduled.

Regulated child care centers continue to operate.

Rolling school closures still occur in response to local cases.

April 2021

Nova Scotia has entered it's third wave of COVID-19. Rolling school closures in select parts of the province transitioned into a province-wide shutdown of schools and Pre-primary Programs.

Regulated child care centers are to stay open during the lockdown at limited capacity, prioritizing the children of essential workers.

Children over 2 years old are required to wear a mask.

May & June 2021

On May 19th, the province announced that the lockdown would be extended and schools and Pre-primary would remain closed for the rest of the school year.

Regulated child care centers were required to drop to 60% capacity.

On May 28th, it was announced that on June 2nd all schools and Pre-primary would re-open.

Rolling closures continued to occur in response to school-based cases.

September 2021

Schools and Pre-primary Programs have re-opened as scheduled. Regulated child care centers continue to operate at full capacity.

Children under 5 are not required to wear masks unless they attend a Pre-primary Program.

The province has stopped releasing exposure notifications at schools. Schools are no longer closing due to a single case of COVID-19.

Some TPOT observations due in June were postponed until September at the request of educators.

October 2021 - January 2022

Nova Scotia has entered it's fourth wave. Individual schools and Pre-primary Programs close when there is considerable spread, but continue to stay open when there are single cases of COVID-19.

Exposure notifications at school have been made public again.

In response to the Omicron variant, schools remained closed from Christmas break to January 17th, 2022. Pre-primary Program educators did online learning for one week.

Figure 5: Timeline of COVID-19 events in NS

Adaptations to the Pyramid Model and Experiences during COVID-19

To understand educators' experiences who were participating in the Pyramid Model during COVID-19 and how the Pyramid Model influenced their practices, interviews with educators from both RCC (n=3) and PPP (n=6) and Inclusion Coaches (n=9) were conducted. Educators and Inclusion Coaches had a range of experience with the Pyramid Model, with few educators (n=3) and most Inclusion Coaches (n=7) involved since before the pandemic and most educators (n=6) and few Inclusion Coaches (n=2) becoming involved after March 2020. While Inclusion Coaches could only share how they perceived the educators to be adapting to the pandemic, both Inclusion Coaches and educators shared some similar experiences regarding the changes in classroom environment, communication, and the Pyramid Model process. Both groups also shared their own unique experiences as detailed below.

> ...I feel like during the pandemic we were a good sounding board for them as well. It gave them an outside person who was really there to support them unlike other services that come in just to support individual children and they utilize a lot of time with myself by honestly venting basically about COVID and how it's affecting their classroom and things they do.
> -Inclusion Coach

The abrupt closure to RCC and PPPs in March 2020 resulted in a change to the Pyramid Model in Nova Scotia. Working from home, Inclusion Coaches were required to shift their coaching process to a virtual format, without programs being open. The majority of Inclusion Coaches stated that early in the pandemic, especially during the initial lockdown, they stayed connected to educators through alternative methods of communication although they received sporadic response from their educators. Some Inclusion Coaches described feeling like they were not "*doing enough*", but another described that after remaining consistent in sharing resources, two of the educators who had not been responsive during the lockdown thanked them for the resources upon their return to the classroom: *"as soon as school went back they messaged me like the first day "We got all your stuff, thank you. When are you coming to see us?"".* Further, the majority of educators described positive experiences with the Pyramid Model and their Inclusion Coaches. One educator did not have an Inclusion Coach for a period of time during the pandemic but still described feeling supported, and another stated that they did not have time for coaching due to staffing challenges. As programs began to re-open in June 2020, some virtual coaching occurred. Inclusion Coaches facilitated reflective debrief sessions, discussed classroom situations and Pyramid Model training modules. As observational visits were not possible at this time, educators spoke about the challenge due to the delay in reaching goals and completing TPOT/TPITOS observations.

The re-opening of RCCs and PPPs in the context of COVID-19 led to many changes for educators and how Inclusion Coaches provided support. Once Inclusion Coaches could return to in-person coaching, they had to adapt their approach to adhere to public health restrictions, to maintain classroom cohorts and increase the duration of visits to minimize frequency. Educators also spoke about the difficulties navigating the new public health restrictions, including finding new ways to integrate families into the classroom, such as increased telephone calls, email, newsletters, and use of apps (e.g., HiMama). A few RCC educators shared examples of connecting through Facebook

> It was—I found it was a bit harder to get them to focus on goals because there was so much extra things that they had to do with regards to cleaning and sanitizing and keeping everything safe that some classrooms didn't achieve as many goals as I would have wanted because of the extra stuff that they had to do.
> -Inclusion Coach

groups or recording videos of themselves to send to the children. PPP educators acknowledged that this shift to virtual ways of connecting with children and families during school closures allowed them a glimpse into the children's lives and provided further opportunities to interact with families.

Additionally, both Inclusion Coaches and educators spoke about early requirements to modify classroom environments, such as removing soft, porous items from the room (rugs, costumes/dress-up clothes, stuffed toys) and individualizing activities that were once shared (e.g., sensory bins). Both cohorts spoke of this as being one of the main adaptations due to the pandemic "*Yeah and I mean you're encouraged to have this stuff and then all of a sudden you can't have it".* Educators further discussed other new requirements related to masks and monitoring minor illness symptoms in children.

Inclusion Coaches and educators shared their experiences responding to the shifting public health restrictions as the pandemic continued to endure and evolve. In general, the majority of educators described feeling some degree of worry, stress and overwhelm at the beginning of the pandemic, but that those feelings seem to have lessened over time. For example, educators discussed the added responsibility of cleaning and sanitization. One educator felt like they were "*expected to put the cleanliness of [their] classroom and the cleaning of [their] toys above the children*". Inclusion Coaches were aware of the burden placed on educators during this time and attempted to respond by allowing time to vent, listening, validating feelings, and giving verbal support if needed. Inclusion Coaches also spoke about the importance of continuing to maintain the relationships throughout the pandemic, with one stating: "*[I] was just consistently reaching out even if they did not return my emails so that they knew I was thinking about them. I was still here and I was still respecting where they were at."* Inclusion Coaches mentioned that they felt educators appreciated the debrief time for reflective conversations and that they benefitted from the opportunity to vent and decompress. One explained, *"sometimes they would go in and out from personal to professional but still they really enjoyed that part of it and [...] they really loved the reflective process and having that time to sit with somebody."*

> I can only say this the way it was if I didn't have positive reinforcement from what I was trying to do from the pyramid coach I wouldn't have had any and at that time I needed it... it is very helpful because I think —lots of things in the Pyramid you say 'oh yeah, of course I knew that' but it gives you something to refer back to...
> -Educator

Educators reflected on impacts of the pandemic on children's social and emotional development and challenging behaviors. While three educators did feel there was an increase in challenging behaviors, others did not feel they could attribute challenging behaviors solely to the pandemic. Two educators specifically acknowledged that because of their focus on social and emotional learning with the Pyramid Model, children may have coped better during the pandemic. One educator further described: *"we were always kind of focusing on social and emotional but with the Pyramid behind us kind of pushing that a little bit more [...] I think having been working on it before the pandemic it actually really was helpful to prepare them when the pandemic took hit*". Educators also attributed changes to children's social and emotional skills to the limited opportunities for social interactions throughout the pandemic (e.g., playdates, attending birthday parties etc.). Similarly, Inclusion Coaches reflected on some successes that they felt came from the pandemic, one being a reduction in challenging behaviors, increase in TPOT scores, as well as an increased buy-in from educators.

> ...and the Pyramid coach I had was wonderful. She was great for giving me a lot of resources and she was very responsive. If I asked for things I got a reply right away...
> -Educator

All educators reported using resources from the National Center for Pyramid Model Innovations website (e.g., problem solving and solutions kit, social stories, visuals, emotions charts) to respond to children's social and emotional skills and challenging behaviors. Inclusion Coaches also reported sharing resources specific to COVID-19 (e.g., mask and handwashing social stories, Tucker Turtle at home) and educators mentioned using these in the beginning of the pandemic too. As one educator said: *"usually I just go to like the Pyramid website, pop in whatever I'm looking for and I've never been disappointed. There's never not been what I'm looking for there, so I've been able to find anything I need"*.

System Level Implementation

Our Transition from a Pilot to a Program

In March 2021, Nova Scotia Early Childhood Development Intervention Services (NSECDIS) was approached by the Department of Education & Early Childhood Development (DEECD) to discuss the potential integration of the Pyramid Model program into NSECDIS. A proposal was put forth to the NSECDIS Board of Directors during the March 2021 Board meeting. After careful discussion and analysis of the potential risks and benefits, the Board of Directors voted to go forward with the integration of the program into NSECDIS.

The NSECDIS Board of Directors signed an amended Service Agreement with the Province of Nova Scotia to incorporate the Pyramid Model Program into NSECDIS services and mandate in April 2021. Funding for the program was provided through the Nova Scotia DEECD and the Early Learning & Child Care Federal/Provincial Bilateral Agreement.

Since Inclusion Coaches were currently employed at Support Sites for early childhood education, the transition was set up into three phases. Phase 1 included the transition of all Nova Scotia Community College Inclusion Coaches to NSECDIS, who chose to continue with the Pyramid Model implementation, on July 1st, 2021. Phase 2 included the transition of all Inclusion Coaches from the Centre d'appui à la petite enfance de la Nouvelle-Écosse, Jane Norman College and Nova Scotia College of Early Childhood Education to NSECDIS, who chose to continue with the Pyramid Model implementation, on September 1st, 2021. Phase 3 was carried out in January 2022 where seven new Inclusion Coaches were hired to support an expansion of the Pyramid Model implementation across the province.

To prepare for the transition over the summer months, multiple meetings, conversations and collaborations took place to ensure that the Pyramid Model was being integrated into NSECDIS as intended and met their service delivery model. Key priorities were identified by the Internal Leadership Team at NSECDIS for the Pyramid Model program implementation:
- A training plan for the onboarding of new Inclusion Coaches
- A caseload planning tool
- Data management system
- A plan for the onboarding of new programs

Working groups were formed to address the various priorities in a timely manner. Included in the working groups were Inclusion Coaches, Coach Team leads, Regional Directors, and Provincial Leadership Team members.

To support this transition as of December 2021, various new positions have been created and hired. Prior to becoming a permanent program, there was one Coach Team Lead who supported Inclusion Coaches provincially. Now, there are five Coach Team Leads who are each responsible for supporting the Inclusion Coaches in their own region(s) which has increased our capacity to implement the Pyramid Model regionally and provincially. In addition, the new role of Learning and Development Specialist has been created to support the onboarding of new Inclusion Coaches and the ongoing training of existing Inclusion Coaches. To support data entry, analysis, and data-based decision making provincially, a Data Management Specialist has also been hired. Lastly, the program was expanded with the hiring of seven more Inclusion Coaches in January 2022. For a complete list of who is involved in the Pyramid Model implementation in Nova Scotia, see Appendix D.

Perceptions of the Transition
To gain a deeper understanding of how the transition to NSECDIS has impacted the Pyramid Model, nine interviews (n=9) were conducted. Specifically, perspectives were sought from Coach Team

Leads (n=5) and members of the Provincial Leadership Team (n=4). The role of a regional Coach Team Lead is a new position resulting from the transition; therefore, each Coach Team Lead had previously held a different position either with NSECDIS or as a Inclusion Coach within the previous Pyramid Model structure. The members of the Provincial Leadership Team each have varying backgrounds in early childhood education and development and experience with Pyramid Model since the beginning of the implementation.

All Coach Team Leads and members of the Provincial Leadership Team shared their general thoughts and experiences surrounding the initial and ongoing transition of the Pyramid Model into NSECDIS. In addition, participants were asked to share what went well, any challenges that they may have experienced, and any future opportunities that they felt could arise from the transition. Perspectives were also sought regarding their thoughts on how the transition to NSECDIS would affect stakeholder and participant perceptions of the Pyramid Model and buy-in to the program. Lastly, participants were asked to share any suggestions or recommendations they had to better support the Pyramid Model as the transition continues to finalize.

Overall, the majority of participants felt well supported by NSECDIS during the transition. The initial reaction of most Coach Team Leads and members of the Provincial Leadership Team seemed to be mixed between hesitancy of leaving their previous positions behind and feeling hopeful about the opportunities that a singular established organization could provide for the Pyramid Model. Some participants spoke of the benefits of having a consistent professional language, as well as the benefits of working closely with their Regional Director to flesh out their role as Coach Team Lead. Some participants felt that NSECDIS would have the scope and capacity to support the Pyramid Model in its growth across early childhood education centres in the province. One participant explained that Pyramid Model may benefit from the connections that NSECDIS has already established in the community. Furthermore, these connections may positively influence how Pyramid Model is perceived as one participant explained that being under the umbrella of NSECDIS may further place a professional lens on the Pyramid Model.

There were some areas that participants felt should be considered as the transition into NSECDIS finalizes. Prior, there were multiple moving parts in both organizations, and due to the size of the transition and the intricacies of the Pyramid Model, one participant stated that they felt it may take some time for both organizations to adjust. Another possible concern was the new title of Inclusion Coach, a few wondered if this title coming from NSECDIS would cause some confusion on the part of educators and parents—potentially suggesting that these Inclusion Coaches were intended for individual children needing developmental supports. One challenge specific to the Francophone/Acadian sector was that the French Inclusion Coaches are located in a few regions across the province, resulting in a difficulty in scheduling observation meetings.

Theory of Change

In March 2020, the Provincial Leadership Team approved a theory of change that reflected the complex nature of the Pyramid Model implementation by integrating a framework of core implementation drivers to incorporate implementation science into our approach. This version was later revised and approved by the Provincial Leadership Team in April 2021 (see Appendix E) which highlighted additional implementation strategies and targets.

A causal approach to the Pyramid Model theory of change begins with a foundation of resources available for implementation. From there, the theory of change leads into three implementation drivers: Competency, Leadership, and Organization Drivers as shown in Figure 6 (Fixsen & Blase, 2008).
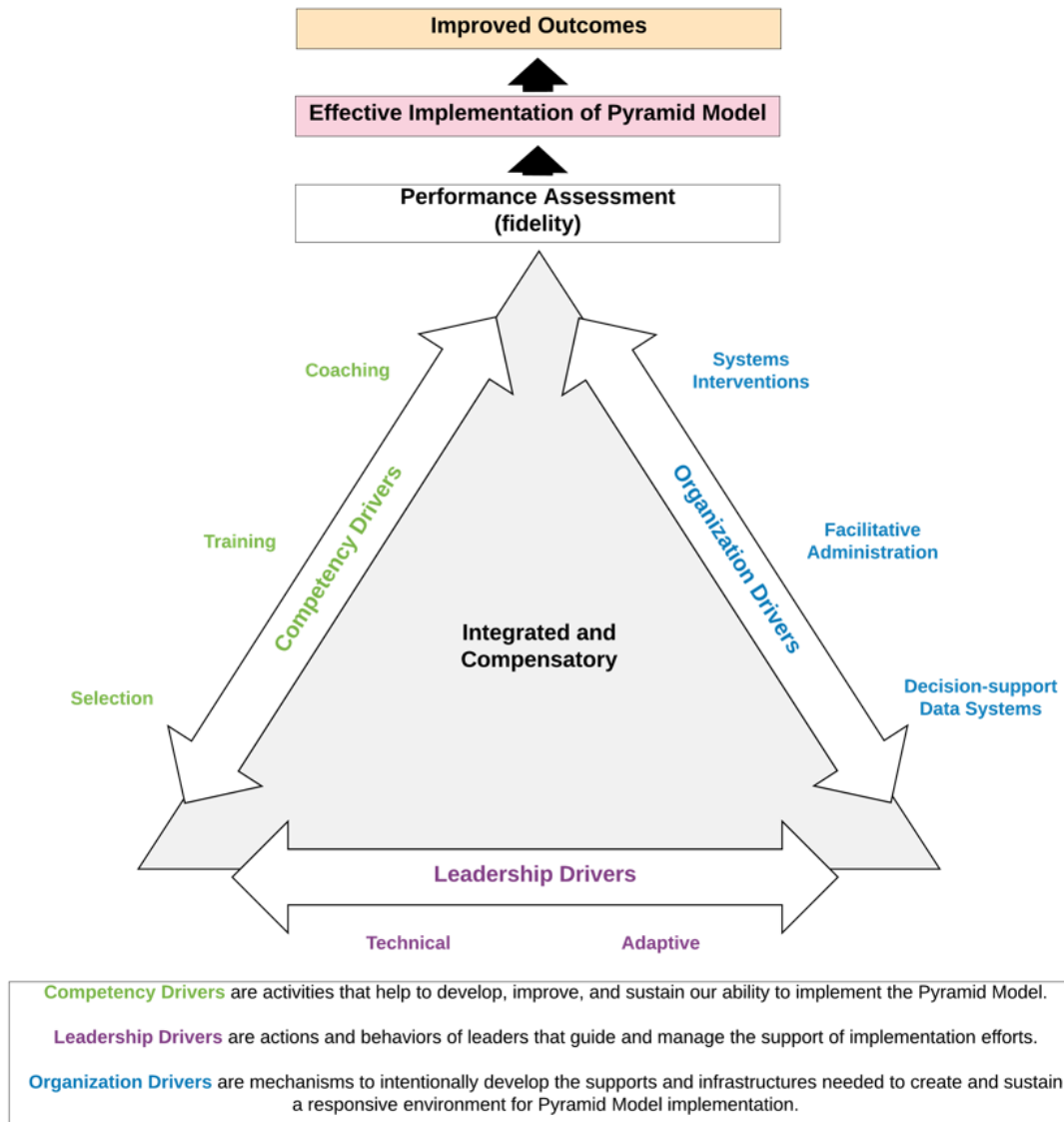

Figure 6: Description of Implementation Drivers. Adapted from Fixsen & Blase (2008)

Competency Drivers are activities that help to develop, improve, and sustain the ability to implement the Pyramid Model. Competency is built through selection, training, and coaching of stakeholders at all levels. Educators, RCC centres, and PPP were selected to participate and trained in Pyramid Model strategies and practices. Inclusion Coaches were hired to implement this program and trained in Pyramid Model strategies, practices and practice-based coaching. In order to assess educator's successful implementation of Pyramid Model practices, the TPITOS and TPOT are used.

Leadership Drivers are actions and behaviors of leaders that guide and manage the support of implementation efforts. To date, the provincial Pyramid Model implementation has been overseen by the Provincial Leadership Team who bring a broad range of representation to the table and engage in data-based decision making to ensure successful implementation. At the local level, Program and Regional Leadership Teams have been created to oversee specific centres or regions of Pyramid Model implementation and are responsible for selecting future educators to participate in

implementation. All leadership teams are to meet monthly to provide ongoing support and guidance to the implementation in their program or region.

Organization Drivers are mechanisms to intentionally develop the supports and infrastructures needed to create and sustain a responsive environment for Pyramid Model implementation. These mechanisms support the effective use of the competency drivers, ensure continuous data-based decision making and that feedback loops are in place. To do this, a wide range of technical and administrative support is provided at all levels of implementation, clear communication pathways are established, and the pragmatic use of resources and funding is carried out.

Within each driver, strategies and actions that are taken by the implementation are detailed. These connect to targets, which are skills, behaviours, and knowledge that the strategies aim to change. Finally, outcomes are the changes that the implementation hopes to ultimately impact through effective implementation of the Pyramid Model and expected outcomes of the program, which are to increase the understanding of the Pyramid Model in families and early years community, increase knowledge and use of effective practice to support improved social emotional skills, and increase leadership skills for Inclusion Coaches and educators.

Provincial Leadership Team Benchmarks of Quality

To support the Pyramid Model implementation across Nova Scotia, the BoQs are completed. There are three distinct versions of the BoQ: one for the Provincial Leadership Team, one for Inclusion Coaches, and one for Program/Regional Leadership Teams. In particular, the Provincial Leadership Team completes the State (Provincial) Leadership Team BoQ, which is used by the Provincial Leadership Team to engage in data-based decision making by informing the current action plan and guiding implementation across the province. Action plans are updated regularly to reflect areas from the Provincial Leadership Team BoQ that require additional support to become fully in place. The Provincial Leadership Team BoQ consists of forty-nine indicators organized into five critical elements: *Leadership Team, Family Engagement, Implementation and Demonstration Programs/Sites, Professional Development*, and *Evaluation/Data-Based Decision Making*. Inclusion Coach and Program/Regional Leadership Teams BoQ are discussed in subsequent sections.

Assessments are completed collaboratively by the Provincial Leadership Team on a biannual basis. Each indicator is scored 0 – 2 (0 = Not in Place, 1 = Emerging/Needs Improvement, 2 = In Place).

Provincial Leadership Team BoQ's have been collected at eight timepoints, roughly six months apart: June 2018, January 2019, July 2019, January 2020, July 2020, January 2021, August 2021, and February 2022 (Figure 7).
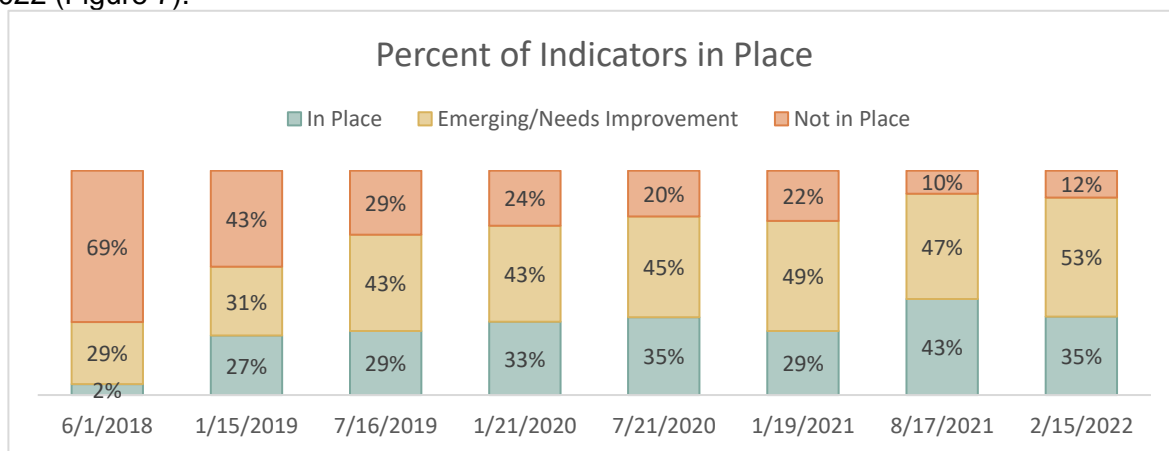

Figure 7: Provincial Leadership Team BoQ

Coaching Level Implementation

The Pyramid Model uses a collaborative goal-setting process. Practice-based coaching is a cycle-based approach that involves collaborative partnerships, shared goals and action planning, focused observations, and time for reflection and feedback opportunities (Figure 8). This approach enables early childhood professionals to utilize evidence-based research to effectively promote positive child outcomes (von der Embse et al., 2019). Both Inclusion Coach and educator work together to set goals by using information obtained from data-based tools such as the TPOT or TPITOS and track their progress towards completion of these goals through coaching logs. Further, Inclusion Coaches also use the Coaching BoQs to monitor their own effective implementation of the practice-based coaching cycles to ensure they are adequately supporting their educators towards reaching fidelity. Below is a description of the tools used in relation to coaching and what coaching has looked like in Nova Scotia. Data is presented separately between RCC and PPP due to the differing infrastructure.

Figure 8: Practice-Based Coaching Cycle

Regulated Child Care Cohort

Coaching Benchmarks of Quality

The Coaching Practice BoQ, adapted from the Colorado Department of Education Coaching Practice Benchmarks (Colorado Department of Education, n.d.), is designed to serve two primary purposes. The first is to provide details at an individual level to help Inclusion Coaches organize their work and reflect on their practices. The second is to provide data at a systems level to aid monitoring and evaluation of the implementation process.

The Coaching Practice BoQ is a self-assessment that is collected biannually. It is comprised of twenty-two indicators organized into three types of coaching practices: *Preparing for Coaching*, *Coaching Process*, and *Content and Fidelity*. Each indicator is scored 0 – 2 (0 = Not in Place, 1 = Partially in Place, 2 = In Place).

Data collection for the Coaching Practice BoQs is still underway. Timepoints are collected based on hiring date, therefore, not all were collected on the same date but rather each Inclusion Coaches' first collection of their Coaching Practice BoQs. There are only eight Inclusion Coaches with a second BoQ due to maternity leave. Of those eight, only three Inclusion Coaches have completed a third BoQ due to the timing of hiring. Therefore, the following results for time three are based only on this sub-sample and are preliminary only.
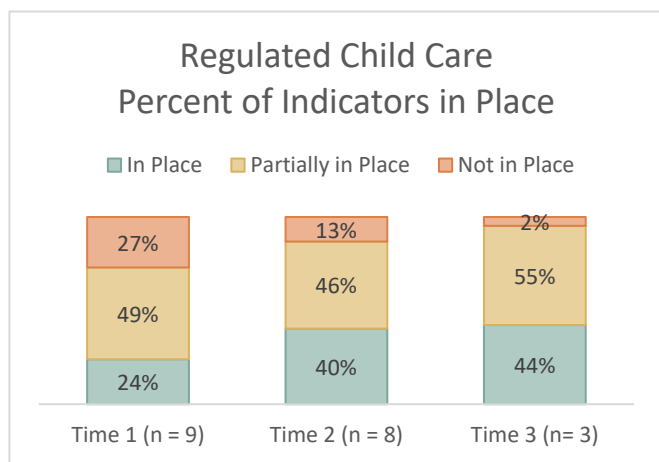

Figure 9: RCC Coaching Practice BoQ Percent Indicators

Overtime, there has been steady improvement across indicators (Figure 9). Indicators fully in place have continued to increase, where indicators not in place have decreased. Figure 10 illustrates the average of indicators by coaching practice type: *Preparing for Coaching*, *Coaching Process*, and *Content and Fidelity*. Across timepoints, *Preparing for Coaching* continues to improve. Between time two and three, there was little change in the average score for *Coaching Process* and *Content and Fidelity*, however it did increase.
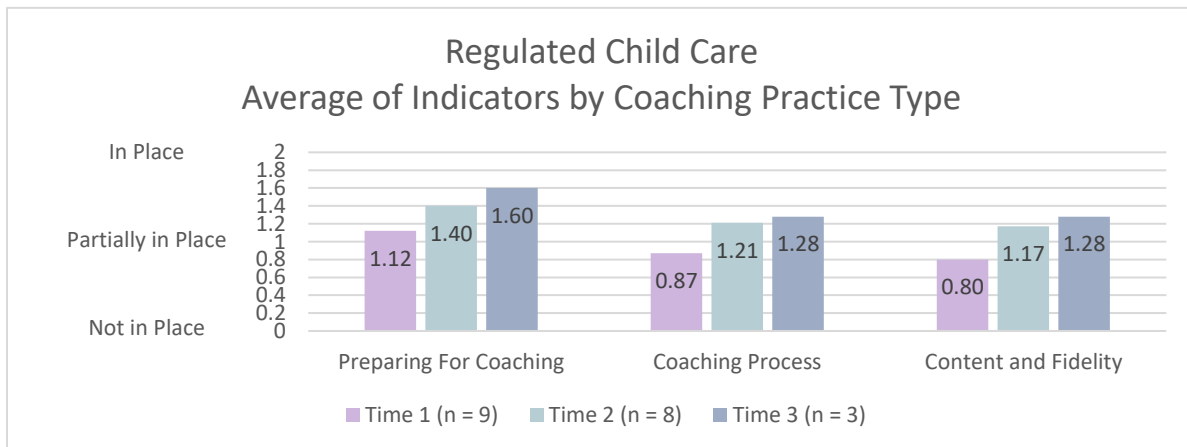

Figure 10: RCC Coaching Practice BoQ Average Indicators

Coaching Logs

One of the foundational pieces of the Pyramid Model is the Practice Based Coaching approach. To track and organize coaching data, Inclusion Coaches complete a coaching log for every direct coaching session with their educator, therefore, coaching log information is collected at the educator level. Coaching logs are organized into two sections: observations and debriefs. Each section is comprised of ten evidence-based strategies that, when used to coach, improve implementation of Pyramid Model practices. Strategies are scored as 'present' or 'not present' with the total amount of time spent using those strategies recorded based on whether it was an observation or debrief strategy. Coaching logs also track the number of action plan goals written and completed, and the number of cycles attempted and completed. One practice-based coaching cycle includes at least one observation session and at least one debrief session, with a maximum of five visits to complete the cycle. Coaching logs are ongoing. Currently there are coaching logs for eighty-three RCC educators.

Across the RCC Cohort, the length of time being coached ranges from two to thirty-three months (2.75 years). Within that time, the average number of visits per cycle was 1.9, indicating that cycles are typically completed within two coaching visits.

In regard to the strategies being used during coaching visits within the RCC Cohort, the three most common observation strategies were *Observed* (31.4% of visits), *Other Help in the Classroom* (11.4% of visits) and *Modeled* (11.3% of visits). This is a change in previously reported data from the 2020 Annual Report which indicated the three most common observation strategies were *Observed*, *Other Help in the Classroom*, and *Reflective Conversation*.

The three most common debrief strategies were *Reflective Conversation* (26.9% of visits), *Goal Setting/Action Planning* (17.2% of visits), and *Supportive Feedback* (14.3% of visits). These are the same three most common debrief strategies as reported in the 2020 Annual Report.

The average length of time spent in observation and debrief sessions decreased since the beginning of the pandemic (Figure 11). On average, observation sessions lasted 66.0 minutes which is 4.6 minutes shorter than prior to the pandemic. Further, debrief sessions lasted 46.3 minutes which is 1.4 minute shorter than prior to the pandemic.

As of December 2021, the average number of goals written across RCC educators was 4.9 with a completion rate of 84.2%. This is a decrease in completion rate (down from 93%) compared to before the pandemic.
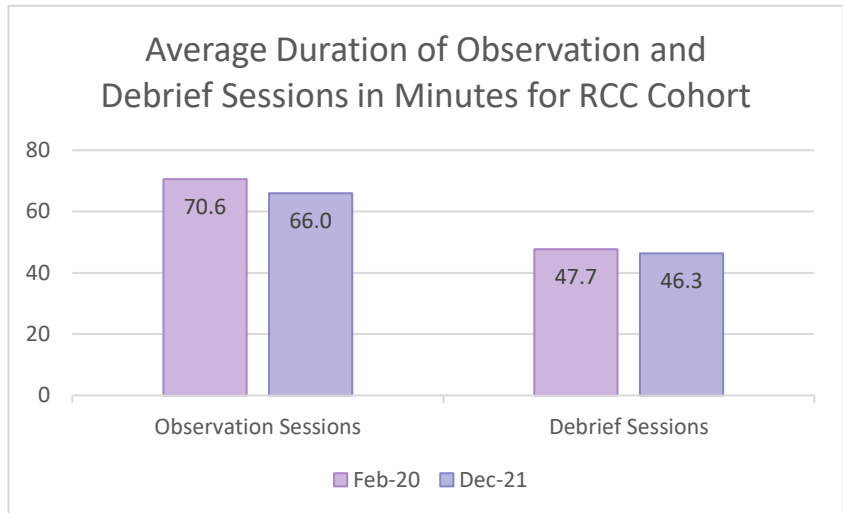

Figure 11: Observation and Debrief Session Averages for RCC Cohort

Pre-primary Program Cohort

Coaching Benchmarks of Quality

Data collection for the PPP Coaching Practice BoQs is still underway. Timepoints are collected based on hiring date, therefore, not all time one's were collected on the same date, but rather each Inclusion Coaches' first collection of their Coaching Practice BoQs. There are only ten Inclusion Coaches with a second BoQ due to attrition. Of those ten, only five Inclusion Coaches have completed a third BoQ due to timing of hiring. Therefore, the following results for time three are based only on this sub-sample and are preliminary only.

Across timepoints, indicators fully in place have increased, where indicators not in place have decreased (Figure 12). Looking at the average of indicators in place by coaching practice type (Figure 13), there has been continuous progress across all practice types. Notably, the *Coaching Process* and *Content and Fidelity* have increased by 0.35 and 0.45 respectively.
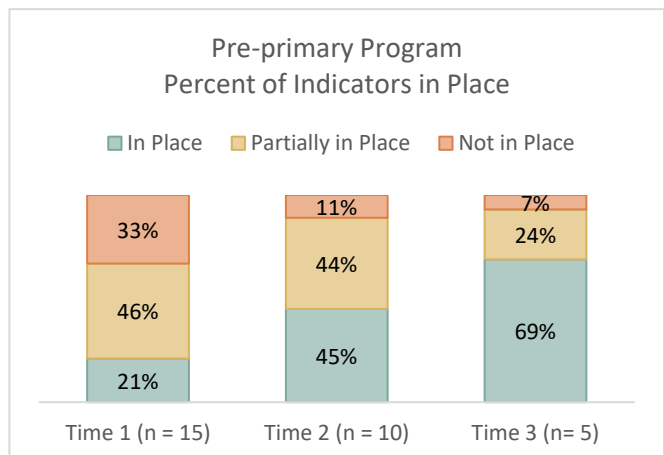

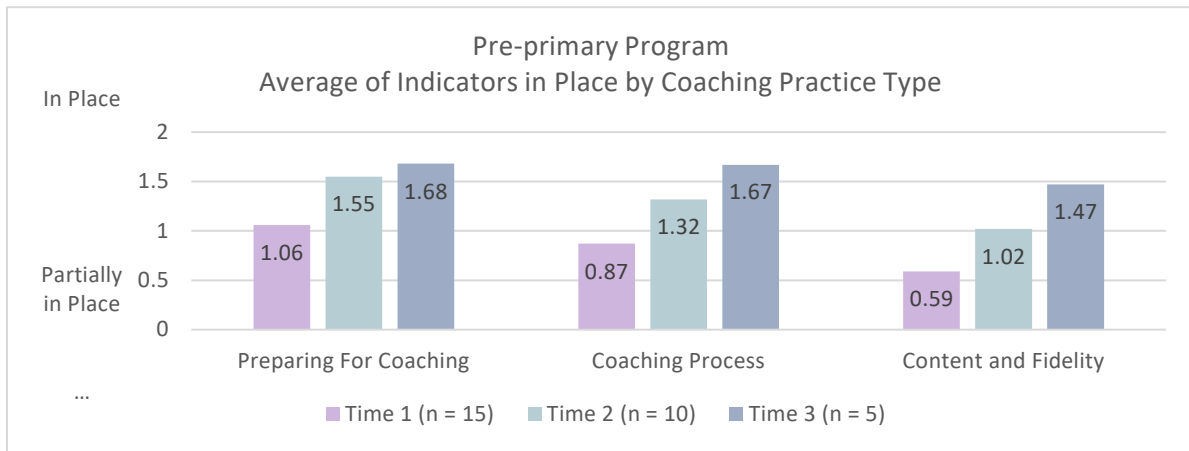Figure 12: PPP Coaching Practice BoQ Percent Indicators

Figure 13: PPP Coaching Practice BoQ Average Indicators

Coaching Logs

Currently there are coaching logs for seventy-five PPP educators. Across the PPP Cohort, the length of coaching ranges from one month to twenty-five months (~ 2 years). Within that time, the average number of visits per cycle was 1.7, indicating that cycles are typically completed within two coaching visits.

During these coaching visits, the three most common observation strategies were *Observed* (23.9% of visits), *Collected Data* (12.9% of visits), and *Reflective Conversation* (12.4% of visits). This is a change from previously reported data in the 2020 Annual Report that replaced *Collected Data* with *Other Help in the Classroom*.

The most common debrief strategies used during coaching visits were *Reflective Conversation* (21.5% of visits), *Supportive Feedback* (17.9% of visits), and *Goal Setting/Action Planning* (13.0% of visits). These are the same three most common debrief strategies as report in the 2020 Annual Report, except *Goal Setting/Action Planning* and *Supportive Feedback* traded places.

The average length of time spent in observation decreased and debrief sessions increased since the beginning of the pandemic (Figure 14). On average, observation sessions lasted 113.4 minutes which is 16.3 minutes shorter than prior to the beginning of the pandemic. Further, the average length of time spent in debrief sessions was 63.1 minutes which is an increase of 9.6 minutes from previously reported data.

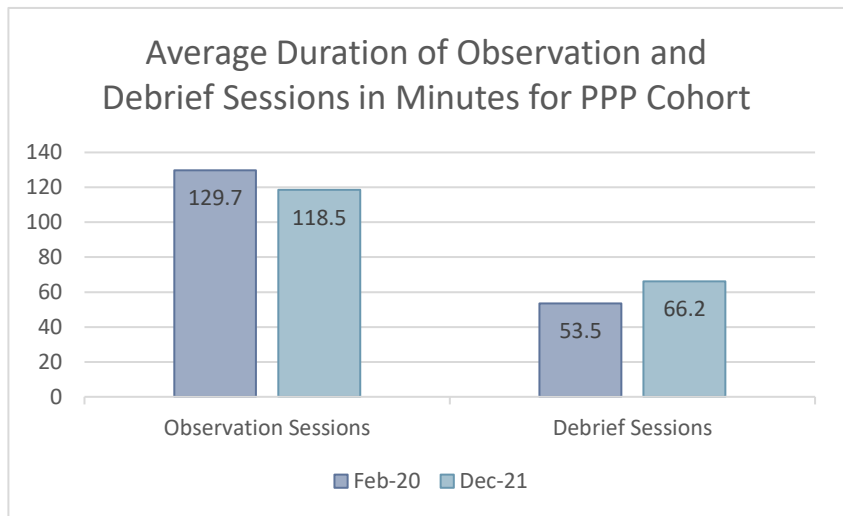As of December 2021, the average number of goals written across PPP Educators was 6.3 with a completion rate of 98.9%. This is an increase in completion rate (up from 86%) compared to before the pandemic.

Figure 14: Observation and Debrief Session Averages for PPP Cohort

Program Level Implementation

The following section illustrates the program level data collected throughout the Pyramid Model implementation for select groups. The following data summaries will showcase programs and educators who have remained consistent with their BoQ and observation tool collection, resulting in a reduced number to present.

Regulated Child Care Cohort

In December 2020, a survey was administered to RCC Program Leadership Teams. The purpose of the survey was to learn about how Program Leadership Teams are functioning and what supports might be needed to move them forward with successful implementation of the Pyramid Model in Nova Scotia. See Appendix F for more details.

One hundred individuals (n=100; 89% response rate) responded to the survey across the province. Program Leadership Teams are comprised of RCC directors and assistant directors, Inclusion Coaches, educators, inclusion coordinators, Early Childhood Development Consultants, family representatives and community members. While COVID-19 has impacted the progress of the Pyramid Model implementation in some centres, many participants reported that their leadership teams were still meeting monthly and that meetings have been going well. Overall, it was reported that working relationship amongst leadership team members was collaborative, supportive and respectful. It was reported by many that Inclusion Coaches are the ones who take on much of the organization and facilitation of meetings (e.g., agenda organizer, meetings facilitator, note taker, and researcher/data collector). However, when it comes to decision making, it was stated that this is a collaborative process and that decisions were made in consensus with the whole team, however the Director typically had the last say.

"I enjoy this time together it helps us to see how well things are going and lets the parents involved really hear what things look like in the class..."
-Director

"Our coach was excellent and became a part of our daycare family. It seems like it was a long process but well worth it. I have noticed so many changes in our centre and also with the educators."
-Educator

"As a parent being part of the program has been nice and I'm pleased that a parent point of view was valued."
-Parent

Many participants discussed the benefits of the Pyramid Model as a whole, stating that the framework is an added resource for educators and a great effort to support child care centres. Many participants expressed gratitude for the support they receive from their Inclusion Coaches. Inclusion Coaches also discussed how it has been rewarding for them to witness their teams grow stronger.

Benchmarks of Quality

The Early Childhood Program-Wide PBS BoQ (Program BoQ) is a comprehensive assessment and progress-monitoring tool designed to help programs evaluate their progress toward implementing the Pyramid Model. The Program BoQ is scored by capturing the consensus opinion of leadership team members about the level of implementation of the benchmarks for program-wide critical elements. Assessments are completed biannually to inform data-based decision making and action planning.

Program BoQs are comprised of forty-one indicators organized into seven critical elements: *Establish Leadership Team* (ELT), *Staff Buy-In* (SBI), *Family Engagement* (FE), *Program-Wide Expectations* (PWE), *Professional Development and Staff Support Plan* (PDSS), *Procedures for Responding to Challenging Behavior* (PRCB), and *Monitoring Implementation and Outcomes* (MIO). Each indicator is scored 0 – 2 (0 = Not in Place, 1 = Partially in Place, 2 = In Place).

Data has been collected from the RCC Cohort up to six timepoints. All twenty-three programs originally participating have a second BoQ. From there, timepoints three through six have varying numbers of programs due to attrition or data not being submitted on time. Therefore, timepoints are based on collection date, not a standard six-month timeframe between scores.

Much like the Provincial Leadership Team and Coach BoQs, there has been steady progress made on the RCC Cohort Program BoQs. Indicators in place continued to increase while indicators not in place have decreased (Figure 15). Looking at the average indicators in place across program elements, all elements at time five and six were at least partially in place (Figure 16). From time five to six, *Staff Buy-in* and *Family Engagement* decreased.
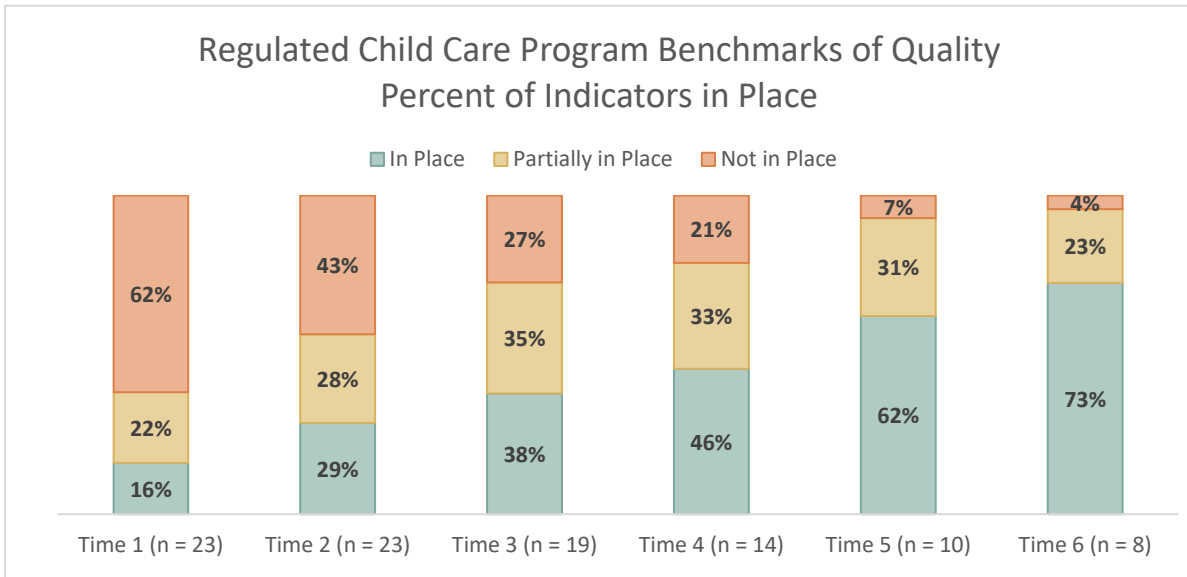

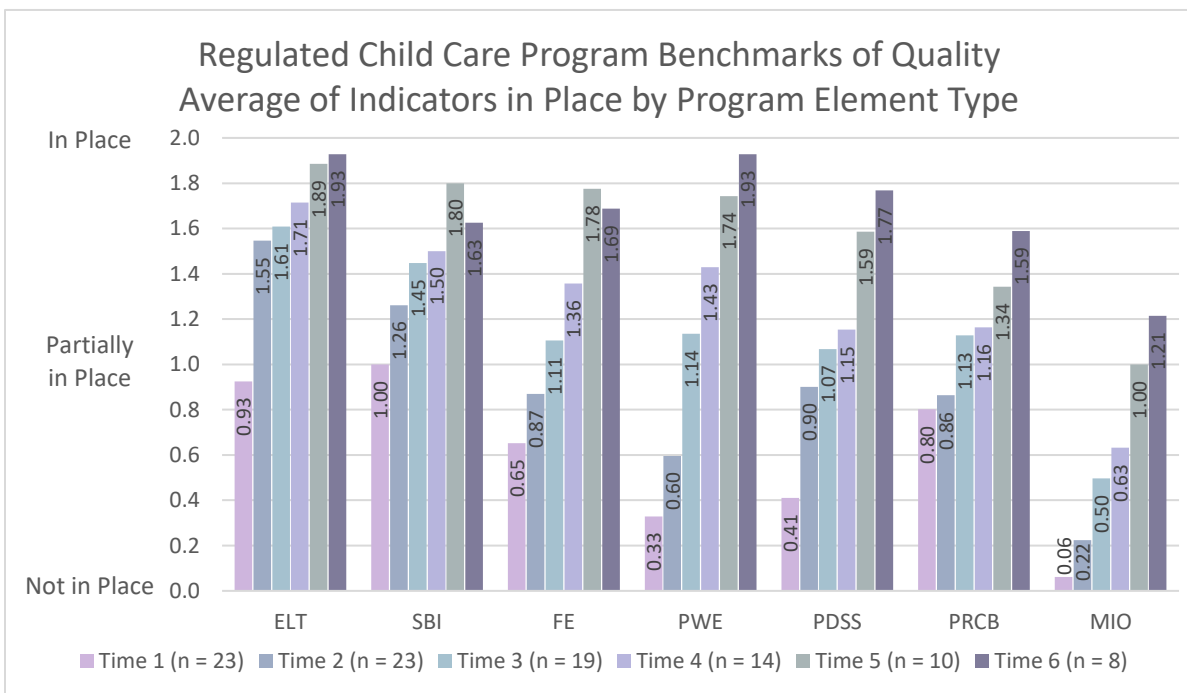Figure 15: Program BoQ Percent Indicators in Place for Regulated Child Care Cohort

Figure 16: Program BoQ Average Indicators in Place for Regulated Child Care Cohort

TPOT

The TPOT is an assessment instrument designed to measure the fidelity of implementation of practices associated with the Pyramid Model in preschool settings. The purpose of the TPOT is to identify whether practices in all three tiers of the Pyramid Model are consistently occurring (Hemmeter et al., 2014). This includes practices related to nurturing and responsive relationships, high-quality supportive environments, targeted social emotional and behavioural support, and intensive interventions. The TPOT consists of three subscales: *Key Practices*, *Red Flags*, and *Responses to Challenging Behavior*.

Key Practices is comprised of fourteen items, each with multiple indicators of associated teaching practices. Eight items are based solely on observations, three are based on a combination of observations and/or interview questions, and three are based solely on interview questions. The majority of indicators are scored either 'yes' they are in place or 'no' they are not in place, and some indicators scored 'N/O' (no opportunity). The indicators that can be scored 'N/O' are predetermined following specific criteria. Table 2 lists the TPOT Key Practices subscale items and scoring methods.

Table 2: TPOT Key Practices Subscale Observational and Interview Items

ITEM	OBSERVATION	INTERVIEW
Schedules, Routines, and Activities (SR)	✓	
Transitions Between Activities Are Appropriate (TR)	✓	
Teachers Engage in Supportive Conversations with Children (SC)	✓	
Promoting Children's Engagement (ENG)	✓	
Providing Directions (PD)	✓	
Collaborative Teaming (CT)	✓	
Teaching Behaviour Expectations (TBE)	✓	
Teaching Social Skills and Emotional Competencies (TSC)	✓	
Teaching Friendship Skills (FR)	✓	✓
Teaching Children to Express Emotions (TEE)	✓	✓
Teaching Problem Solving (TPS)	✓	✓
Intervention for Children with Persistent Challenging Behavior (PCB)		✓
Connecting with Families (COM)		✓
Supporting Family Use of the Pyramid Model Practices (INF)		✓

The *Red Flags* subscale is a seventeen-item inventory of practices that are not consistent with Pyramid Model practices (e.g., chaotic transitions, reprimanding children for expressing emotions). Based on educators' practice during the observation and interview period, red flags are scored 'yes' if they occurred or 'no' if they did not.

Responses to Challenging Behaviour quantifies whether challenging behaviour (e.g., persistent or prolonged crying, physical aggression) occurs during an observation and if essential strategies are used to address each incident. The item is scored 'yes' if a challenging behaviour occurred and *all* essential strategies were observed in *all* incidents. A score of 'no' is issued if challenging behaviours occurred and essential strategies were used partially or not at all. If no incidents are observed, the item is scored 'N/O.'

TPOT observations are conducted biannually by a trained observer. Observations are conducted for at least two-hours in a preschool setting and must include teacher-directed activities (e.g., circle time), child-directed activities (e.g., free play), and the transition between activities. Following the observation period, educators are interviewed to gather further information about their strategies to support children's social-emotional development. These interviews typically last for 15 – 20 minutes.

The data presented below (Figure 17) represent a subset of RCC Cohort educators that have three timepoints to date (n=10). Data is illustrated by the average percentage of key practices in place regardless of length of time between collection or date of collection. In general, progress is being made and scores are increasing over time. However, only items SC and CT have reached fidelity (≥80%). Figure 18 illustrates the average number of red flags per timepoint which consistently have decreased over time. For more information on the entire set of RCC Cohort educators and their TPOT scores, see Appendix G.
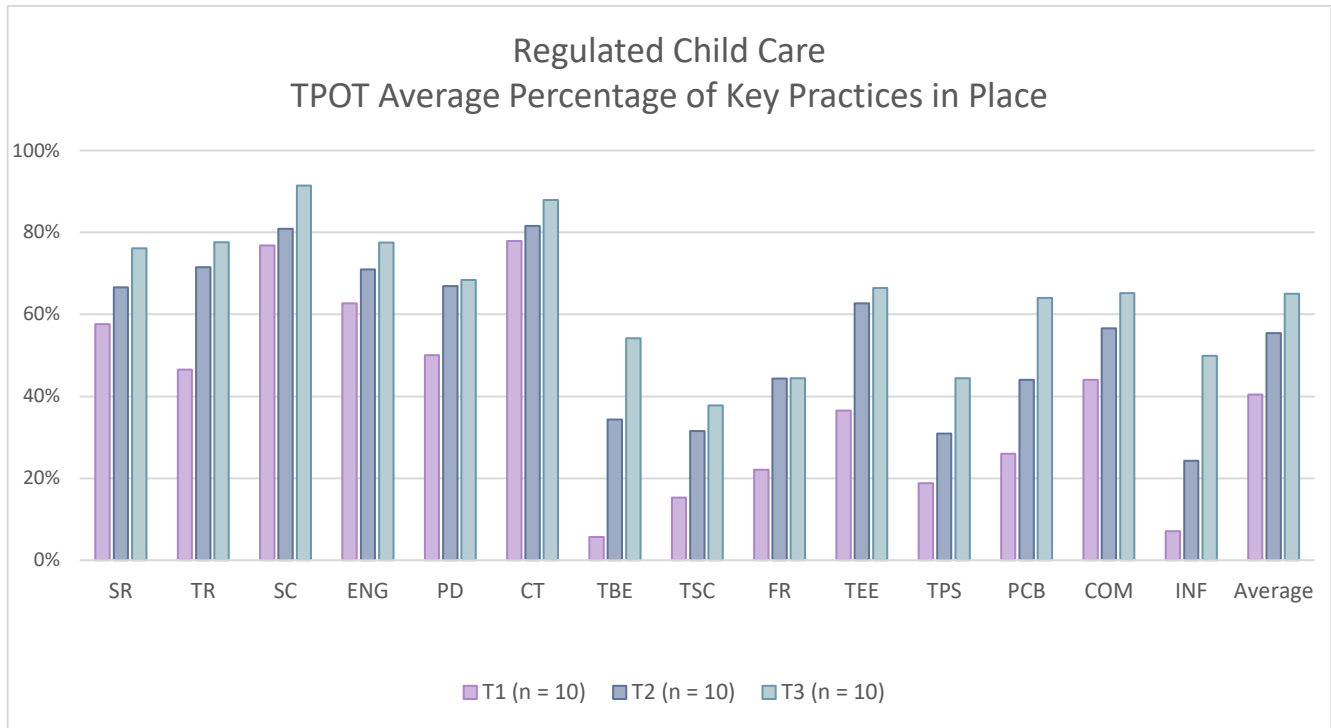
Figure 17: Average Percentage of Key Practices in Place for Subset of RCC Cohort Educators
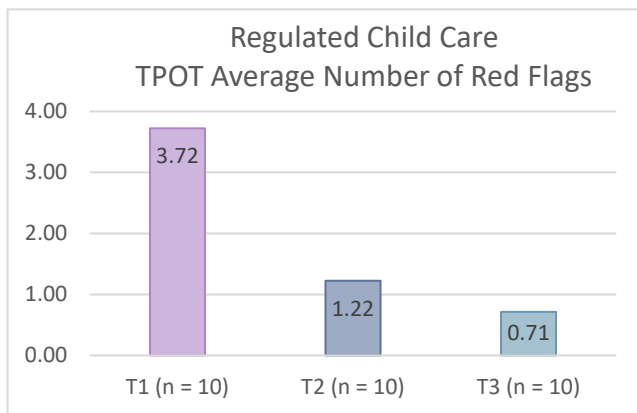
Figure 18: Average Number of Red Flags for Subset of RCC Cohort Educators

TPITOS

The TPITOS is used to assess fidelity of implementation of practices associated with the Pyramid Model in infant and toddler settings. The purpose of the TPITOS is to provide a snapshot of educators behaviours and environmental factors that are associated with the first tier of the Pyramid Model (Bigelow et al., 2019). This includes practices related to nurturing and responsive relationships and high-quality supportive environments, the universal tier of the Pyramid Model. There are thirteen items and eleven red flags on the TPITOS. Four items are scored based on observation only, seven are scored based on a combination of observation and/or interview questions and two are scored based on interview questions only. The majority of indicators are scored either 'yes' they are in place or 'no' they are not in place, with some indicators being able to be scored 'N/A' (not applicable). The indicators that can be scored 'N/A' are predetermined following specific criteria. Red flags are items that are not consistent with Pyramid Model practices, which could impede children's social emotional development if continued. Red Flags are scored as either 'yes' they are in

place or 'no' they are not in place based on educator or classroom behaviour during the observation and interview period. Table 3 lists TPITOS items and scoring methods.

Table 3: TPITOS Observational and Interview Items

ITEM	OBSERVATION	INTERVIEW
Teacher Provides Opportunities for Communication and Building Relationships (CBR)	✓	
Teacher Demonstrates Warmth and Responsivity to Individual Children (DWR)	✓	
Teacher Promotes Positive Peer Interactions (PPI)	✓	✓
Teacher Promotes Children's Active Engagement (CAE)	✓	✓
Teacher is Responsive to Children's Expression of Emotions and Teaches About Feelings (REF)	✓	✓
Teacher Communicates and Provides Feedback About Developmentally Appropriate Behavioral Expectations (CBE)	✓	✓
Teacher Responds to Children in Distress and Manages Challenging Behavior (RDC)	✓	✓
Teacher Uses Specific Strategies or Modifications for Children with Disabilities or Delays, or who are Dual Language Learners (SMD)	✓	✓
Teacher Conveys Predictability Through Carefully Planned Schedule, Routines, and Transitions (SRT)	✓	
Environment is Arranged to Foster Social-Emotional Development (EA)	✓	
Teacher Collaborates with his/her Peers to Support Children's Social Emotional Development (TCP)	✓	✓
Teacher Has Effective Strategies for Communicating with Families and Promoting Family Involvement in the Classroom (CWF)		✓
Teacher Engages Parents in Supporting Their Children's Socio-Emotional Development and Addressing Challenging Behaviors (EEP)		✓

Observations are completed during a two-hour period in infant or toddler settings and must include observations from three of four routines: free play, structured group, personal care, and gross motor. Following the observation period, educators are interviewed to gather further information about their strategies to support children's social-emotional development. These interviews typically last between 15 – 20 minutes. The TPITOS is then scored by calculating the percentage of indicators observed per item.

The data presented below (Figure 19) represent a subset of RCC Cohort educators who have four timepoints (n=8). Data is illustrated by the average percentage of observational and interview items in place regardless of length of time between collection or date of collection. Generally, things are improving with all but two items (REF and CBE) at fidelity by time four (≥80%). Figure 20 illustrates the average number of red flags per timepoint which has consistently been low. It is important to note that although time two looks to be quite high compared to the other timepoints, it is still below one red flag on average per observation. For more information on the entire set of RCC Cohort educators and their TPITOS scores, see Appendix H.
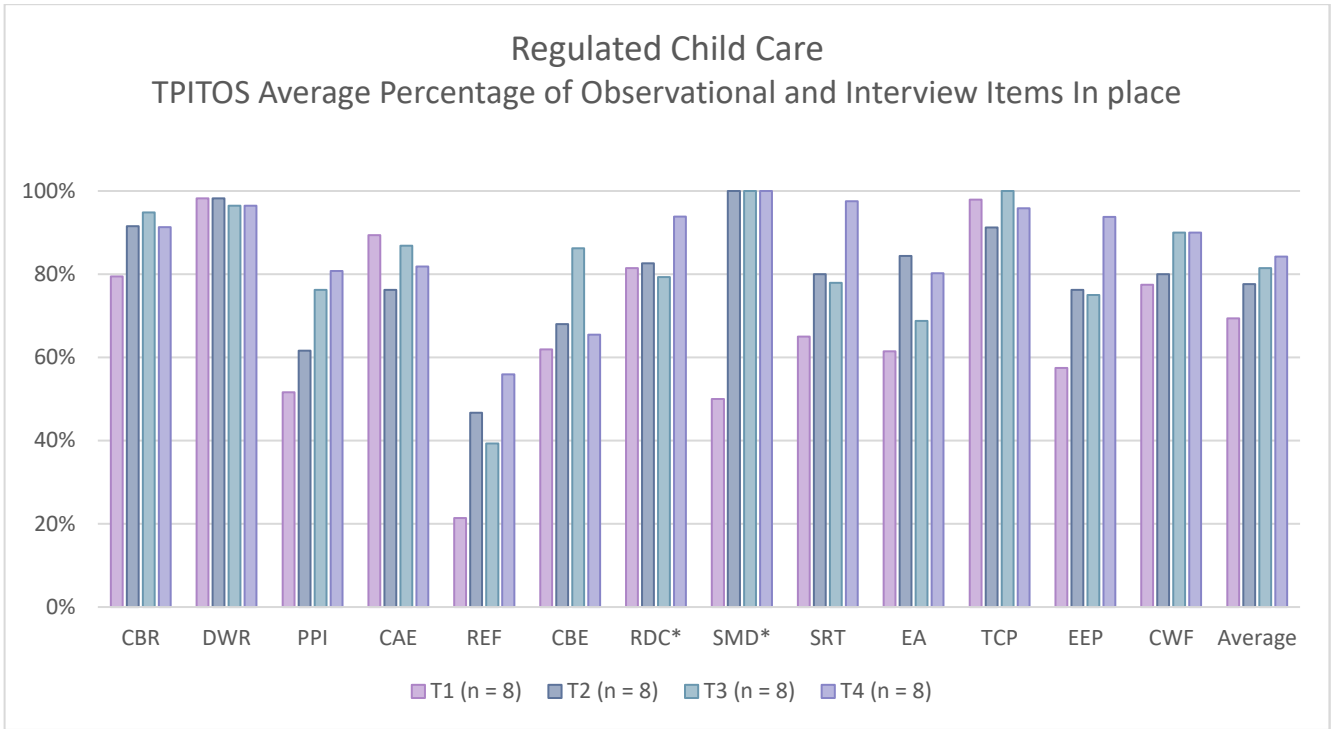
Figure 19: Average Percentage of Observational and Interview Items in Place for subset of RCC Cohort Educators
*Note: Due to the TPITOS scoring schema, items RDC and SMD may be entirely N/O for an educator, thus decreasing the sample size.
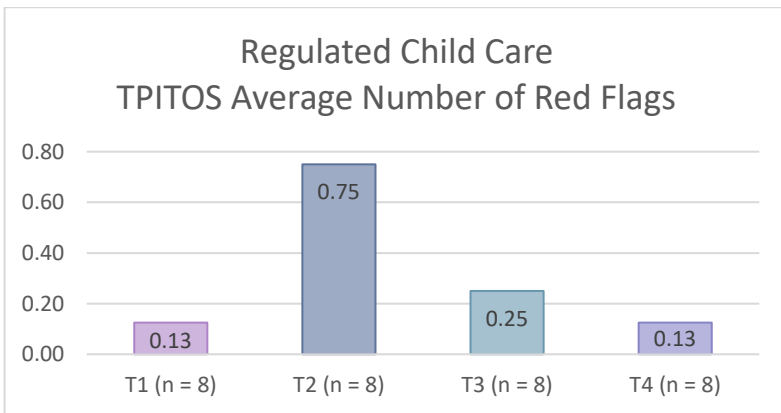
Figure 20: Average Number of Red Flags for Subset of RCC Cohort Educators

Pre-primary Program Cohort

In May 2021, a survey was administered to Regional Leadership Teams. The purpose of the survey was to learn about how Regional Leadership Teams are functioning and what supports might be needed to move them forward with successful implementation of the Pyramid Model in Nova Scotia. See Appendix F for more details.

Sixty-four individuals (n=64; 92% response rate) responded to the survey from seven Regional Centres

"This has been a very positive experience. Our team meets regularly and we have been able to set goals and accomplish them through a dedicated vision, agenda, purposeful meetings and collaboration."
-School Principal

for Education and one School Board. Regional Leadership Team members included representation from educators, consultants, NSECDIS Regional Directors, Inclusion Coaches, PPP leads, school principals, family representatives, and Master Cadre. Although there were school closures as a result of the COVID-19 pandemic, participants reported that leadership team meetings continued through virtual platforms. Overall, many participants stated that they have a great working relationship with their Regional Leadership Teams and that things were going well. Some participants indicated that they appreciated the distribution of roles amongst their leadership teams and many participants indicated the many roles that individuals hold within their leadership team such as note taker, agenda maker and meeting scheduler. Furthermore, participants indicated that decision making was a collaborative process which included group discussions or sometimes a voting system.

> "Decisions were made through conversations. When opinions differed, we would have more in-depth conversations. If we could not reach a decision that meeting we would often re-visit it the next, with more discussion."
> - *Educator*

> "I have enjoyed my Pyramid experience. My coworker and I have learned a lot about ourselves, which perhaps we did not expect. The reflection piece is such an important part of the program."
> -*Pre-primary Lead*

Reflecting on successes, participants explained that the Pyramid Model has been beneficial for educators and children, and that resources shared with families are supportive to parents' in building healthy relationships with their children. Additionally, it was stated that children's social and emotional learning has greatly improved, which has positively influenced the classroom environment.

Benchmarks of Quality

Within the PPP Cohort, there are eight Regional Leadership Teams. All leadership teams have completed at least two BoQ self-assessments. Sample size decreases with time three and four due to one Regional Leadership Team beginning at a different time than the rest, and data not being collected every 6-months. Therefore, timepoints are based on collection date, not a standard 6-month timeframe between scores. Consistent with other BoQs mentioned above, the PPP Cohort BoQs continue to improve. Indicators in place are increasing while indictors not in place are decreasing (Figure 21). By time four, all critical elements except one (MIO) are at least partially in place (Figure 22) but all continue to increase over time.

Pre-primary Program Benchmarks of Quality
Percent of Indicators in Place

Legend: In Place | Partially in Place | Not in Place

	In Place	Partially in Place	Not in Place
Time 1 (n = 8)	14%	29%	56%
Time 2 (n = 8)	17%	41%	42%
Time 3 (n = 7)	35%	54%	27%
Time 4 (n = 6)	46%	38%	16%
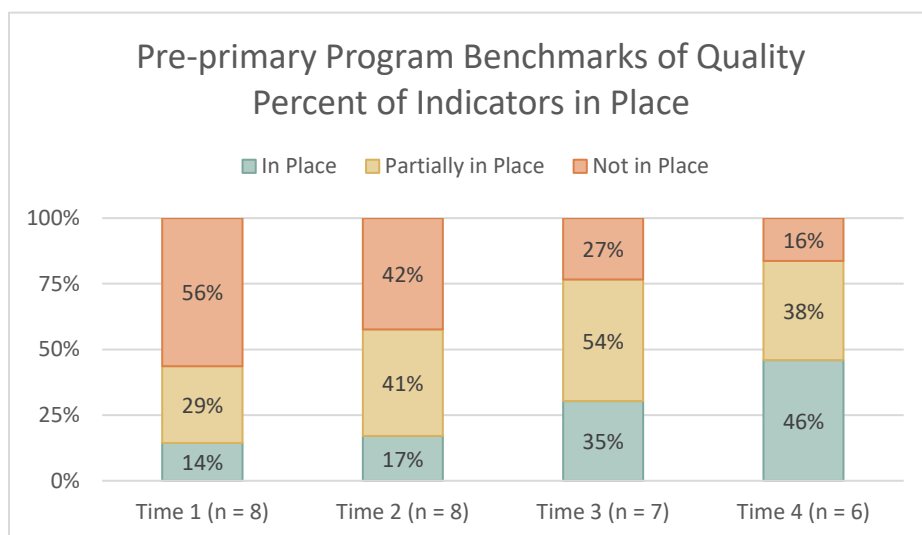
Figure 21: Program BoQ Percent Indicators in Place for Pre-primary Cohort
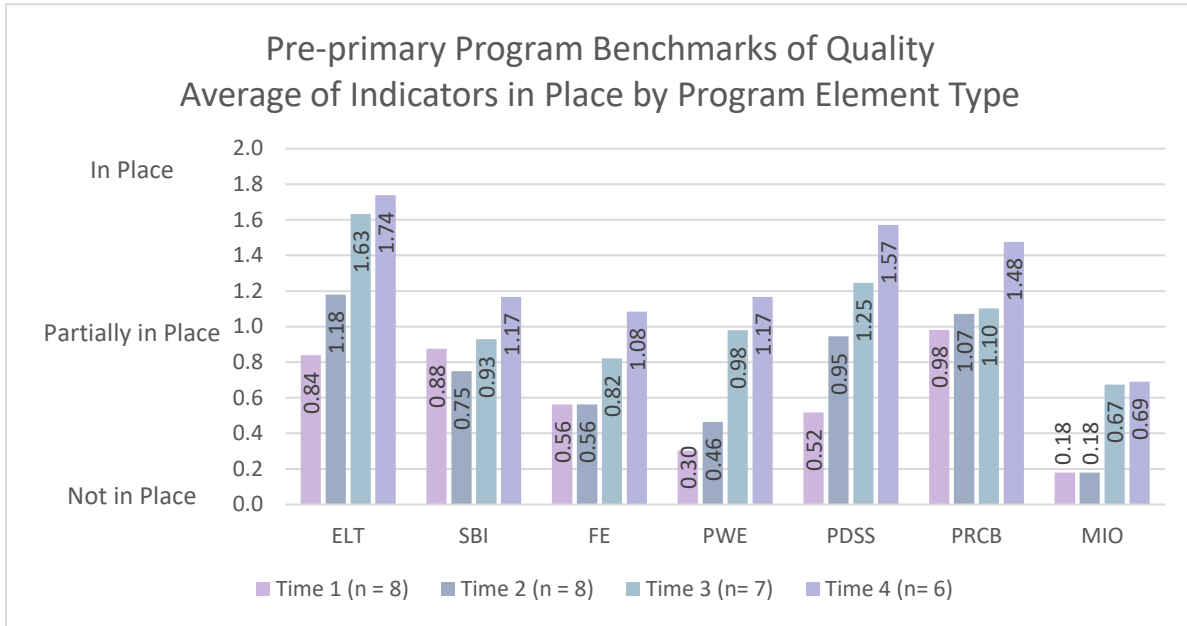
Figure 22: Program BoQ Average Indicators in Place for Pre-primary Cohort

TPOT

The data presented below (Figure 23) represent a subset of PPP Cohort educators who have four timepoints (n=9). Length of time between data collection timepoints is roughly T1 (1-year COVID gap) → T2 (6 month) → T3 (6 month) → T4. In general, scores continue to increase with nine out of fourteen items at fidelity at time four. However, it is important to note there was a decrease in average scores from time three to four in items TBE and TPS. Figure 24 illustrates the average number of red flags per timepoint which consistently decreased over time. For more information on the entire set of PPP Cohort educators and their TPOT scores, see Appendix I.
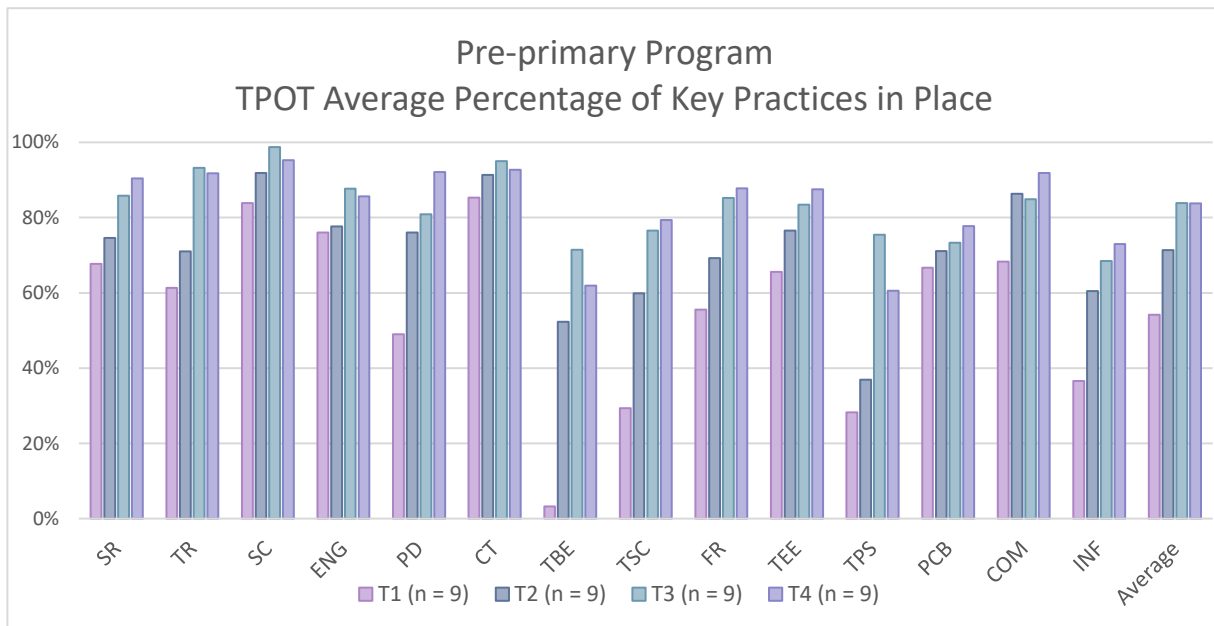
Figure 23: Average Percentage of Key Practices in Place for Subset of PPP Cohort Educators
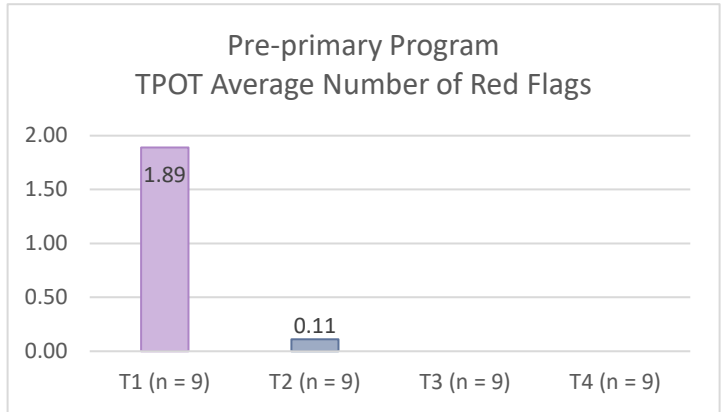
Figure 24: Average Number of Red Flags for Subset of PPP Cohort Educators

Moving Forward

This annual report marks an important time in the implementation of the Pyramid Model in Nova Scotia. The transition of Pyramid Model into NSECDIS as a permanent program has contributed essential infrastructure that signals the importance of supporting capacity for educators in evidence-based social and emotional learning practices. While the COVID-19 pandemic has influenced all implementation drivers and required adaptations to implementation of the Pyramid Model, the infrastructure of NSECDIS has contributed to greater stability of the program across the province.

The data included in this report suggest that implementation of key benchmarks for the implementation at the provincial, coaching, regional and program level that respond to our evaluation questions:

1. How are the competency, leadership and organization drivers influencing the implementation of the Pyramid Model initiative?

- For the Provincial Leadership Team, elements of the BOQ were consistently improving across data timepoints up until the pandemic began. In the last two years, the Provincial Leadership Team has seen fluctuating scores based on the response to the pandemic, as well as the transition from pilot to program. The last data collection timepoint in February 2022 resulted in a slight decrease in indicators in place as the Provincial Leadership Team's understanding and clarity of how the Pyramid Model will be implemented as a permanent program and what elements that still need to be developed has increased. One element that remains not or partially in place is *Implementation and Demonstration Programs/Site*. With only going into the third year of implementation with the RCC Cohort, some programs are just making their way towards program-wide implementation now, therefore there are no programs identified as demonstration sites thus far. Another element that continues to be an area of focus for the Provincial Leadership Team is *Family Engagement*. More information on the efforts to obtain families input on the Pyramid Model implementation and way to engage families more is discussed in the subsequent moving forward section. The Provincial Leadership Team BoQs continue to guide the work of the Provincial Leadership Team and NSECDIS to ensure high quality province-wide implementation of the Pyramid Model.

2. How has the Pyramid Model influenced change in knowledge and use of effective practice for social and emotional learning?
3. How is the Pyramid Model implementation being supported by Inclusion Coaches and programs?

- The results suggest that Inclusion Coaches are becoming more familiar with the practice-based coaching process and are more comfortable in their coaching practice, which is represented by increases in relevant components of the BOQ. Gaps and closures of programs may have impacted some elements of the score as a result in the change in coaching format and processes due to the pandemic and alternating between face-to-face and distance coaching which had never been done before.
- For RCC and PPP Program BoQs elements are also mostly increasing over time, with all elements in the most recent timepoints being at least partially in place. One observation among the RCC cohort was the decrease in the elements of Staff Buy-in and Family Engagement. This might be explained by the difficulties experienced during the pandemic with communication with families and the increased load on early childhood educators.

- Pyramid Model practices (measured through the TPOT and TPITOS) are also increasing across participating programs in both RCC and PPP cohorts suggesting a positive trajectory for positive social and emotional practices over time. Overall, the RCC cohort was more interrupted during COVID – a slower increased implementation was observed and most educators are not at fidelity. The PPP cohort has demonstrated increased scores overall and has allowed for a more consistent data collection timing (typically fall/spring), which may allow for a greater understanding of the meaningfulness of the fluctuations in the patterns in the data. Importantly, there are similar patterns across timepoints of these measures, which is a good indication of the stability of the implementation.

The following considerations for moving forward have been developed collaboratively with the Provincial Leadership Team and identify key priority focus areas to support ongoing implementation and sustainability of the Pyramid Model in Nova Scotia.

Sustaining a systems approach to implementation

The Nova Scotia Pyramid Model has adopted an implementation science approach to build an understanding of the systemic change processes. Figure 25 provides a view of the Pyramid Model through the six stages of implementation suggested by Fixsen, Naoom, Blasé, Friedman & Wallace (2005). There is inherent complexity at the initial few stages of implementation, as it requires change to the status quo and confidence in the decision to adopt the new practice (Fixsen et al., 2005).

Exploration and Adoption (2018)

•Introduction of the Pyramid Model in the province

Program Installation (2018-19)

•Building initial building blocks of implementation, including Provincial Leadership Team, Master Cadre and Coaches

Initial Implementation (2019-current)

•Implementation in both RCC and PPP, transition into NSECDIS

Full Operation (future)

•Embedded program within NSECDIS with leadersip, competency and organization drivers established.

Innovation (future state)

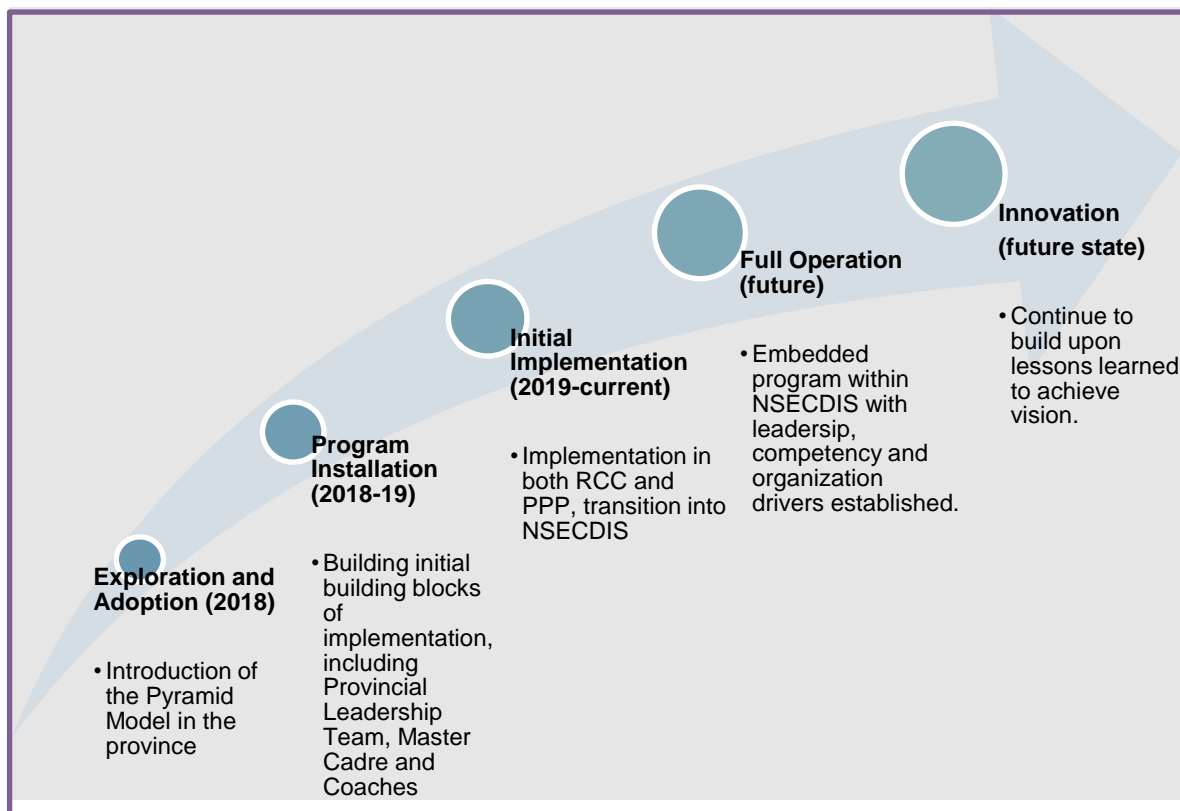•Continue to build upon lessons learned to achieve vision.

Figure 25: Implementation stages through the Pyramid Model

Our theory of change further recognizes three implementation drivers – competency, organization, and leadership – that collectively contribute to intervention fidelity and sustainable program implementation (see Figure 6). As the Pyramid Model transitioned into a program within NSECDIS, the foundational infrastructure that supports the implementation of the initiative shifted, providing a more stable provincial platform for delivery. At this same time, this has meant changes in employment for Inclusion Coaches and for leadership and organizational drivers. In the evaluation, Coach Team Leads and Provincial Leadership Team members commented on the importance of maintaining and building from the pre-transition strengths through the established infrastructure of NSECDIS. As the Pyramid Model continues to evolve, particularly within the backdrop of the Canada-wide Early Learning and Child Care agreement, it will be important to pay attention to the systems approach in implementation with a view toward sustainability while considering the impacts of the foundational aspect of the early childhood workforce. This includes the historical concerns in the ECE workforce that relate to training and compensation, along with the attrition in the profession as a result of working conditions (Saulnier & Frank, 2019).

Equity, diversity and inclusion

Equity, diversity and inclusion has been an important area of reflection and consideration for the Provincial Leadership Team over the last year. Members attended a multi-day national training series hosted by the Pyramid Model Consortium to support a more focused equity lens to the Pyramid Model. This led to the development of a focused action plan with priority considerations relevant to the diversity of the Provincial Leadership Team, Inclusion Coaches and participating programs. This focus on equity can be facilitated through the extensive experience of NSECDIS in building local community networks and collaborative partnerships to support the best interests of children and families, enabling further reach of the Pyramid Model to communities not yet involved. Additional suggestions from the evaluation include ensuring that the focus of the program remained on foundation of the Pyramid Model, creating an effective workforce and supportive environments for all children, not just children who need additional support. Finally, it is essential that the program continues to consider what is needed for our Francophone community, as it was noted in the evaluation that French translation can sometimes be slower, which creates inequity in implementation.

Family engagement

Families are important partners in the development of supportive social and emotional environments for children. A companion project, Positive Solutions for Families, is being implemented by NSECDIS through workshops for families to support parenting capacity. Virtual facilitated workshops were delivered in 2021 at select Pyramid Model programs and a self-directed workshop format is being piloted through a learning management system. However, similar to previous evaluations there is a gap in understanding of family experience with the implementation of the Pyramid Model. An online survey was provided to families at Pyramid Model programs in summer 2021 but there was limited response (see Appendix J). This may have been due, in part, to the more limited communication between programs and families during the pandemic as well as other challenges for families that make it more difficult for them to find the time to complete the survey. Finding a way to gather feedback from families will need further attention as Pyramid Model implementation expands.

Training and onboarding

As mentioned above, with the transition to a program with NSECDIS, more positions have been created to support the training and onboarding of new Coach Team Leads, Inclusion Coaches, and educators. Training and onboarding of Coach Team Leads and Inclusion Coaches is supported by the new role of a Learning and Development Specialist and a Data Management Specialist. Both roles work together to orient new staff to the Pyramid Model, the foundational components, and data-based

decision making. It was felt that there was a good amount of support for the Inclusion Coaches and an appreciation for the peer model where they can work through challenges together.

Over the last two years with the pandemic, many educators have utilized closures, extended breaks and professional development days to complete some or all of the Pyramid Model modules which has broadened the understanding of Pyramid Model across the early childhood field, even for educators who are not being actively coached. One topic in particular that has been popular in the early childhood field as we grow our understanding about the lasting effects on children growing up in pandemic times is the Trauma-Informed Care and the Pyramid Model module. This module has become increasingly important and sought out as the global pandemic is causing a lot of trauma and challenges for some children. One suggestion from educators who were being coached was that more individuals outside of those being coached (e.g., co-educators, directors/administrators, PPP Leads, relief time staff) should be trained in the Pyramid Model modules so that everyone has the same understanding of the program, it's benefits, and how it's implemented.

As we have more educators trained in the Pyramid Model modules, there is more interest in the program and for other educators to be coached. When interviewed, Inclusion Coaches expressed that there was a need for increased clarity surrounding the onboarding process for new educators. Currently for the RCC Cohort, educators are brought on at any point in the year when there is an Inclusion Coach who felt they had the capacity. For the PPP Cohort, educators are typically brought on every fall at the beginning of the school year. With the transition to NSECDIS, this process will continue to be refined and finalized over the next few months as program standards, policies and procedures are created for the roll out of the implementation. For example, Inclusion Coaches have discussed the benefits of identifying new educators in PPP prior to the summer break to allow time to build relationships and build some foundational practices in the physical environment, *"so far looking at the Fall, my new sites have been identified [...] I start a meeting with them tomorrow to get some things in place [...] I'm not going into an environment after two months and trying to put goals in place or visuals in place to take back some of the practices that they've already gotten into"*.

Program/Regional leadership teams' membership and coaching

The evaluation has identified several ways to improve the functionality of the Program and Regional Leadership Teams as they become more established. This includes clarifying the roles and responsibilities of leadership team members and sharing distribution of tasks across members. For the RCC Cohort, Program Leadership Teams are made up mostly of program directors, administrators, educators and Inclusion Coaches with little external representation as that leadership team is solely for that particular program. It was suggested by Program Leadership Team members that other external individuals should be a part of the leadership teams (e.g., consultants, community members, early childhood professionals, etc.). For the PPP Cohort, Regional Leadership Teams are comprised of regional centre for education/school board staff, school principals, consultants, community members, educators and Inclusion Coaches and represent an entire regional of schools. Since Regional Leadership Teams represent an entire region, it has been suggested for the larger regions that multiple teams be created so that there is a greater focus and discussion of specific programs rather than just the region broadly.

With the transition to NSECDIS and the creation of more Coach Team Lead positions that support each region, the intention is for the Coach Team Leads to provide coaching to leadership teams which was previously the responsibility of Inclusion Coaches in addition to coaching Educators. This dedicated focus to support the enhancement of leadership team capacity will support the long-term sustainability of Pyramid Model practices within programs. Structured onboarding processes for new programs will help ensure clarity regarding the purpose and role of leadership teams and ongoing leadership team coaching will assist in supporting the sustainability of the practices within programs.

Data collection and sharing

As the capacity of Pyramid Model implementation increases with the transition to NSECDIS, there is a need moving forward to support training in data collection to achieve a more consistent collection schedule. This would enable more reliable data to help inform decisions at all levels (program and provincial). One example is the possible expansion of training among Inclusion Coaches in TPOT and TPITOS given their essential part in the Pyramid Model process. This training would enable more Inclusion Coaches and other related individuals to be trained to carry out data collection and provide them with a better understanding of the data tools that are informing their coaching practice. There is also an opportunity to use training to support programs and their leadership teams in better understanding the value of data and its potential use in informing decision-making in their program. Additional TPOT & TPITOS training could be provided to internal coaches within programs reaching fidelity to support the long-term use of the tools to generate data to support ongoing decisions around the implementation of Pyramid Model practices within their program. A system for ongoing data sharing should be developed that links and engages programs in the collaborative use of data to support program and regional decision making.

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Appendix A

Tool Name:	Description of Tool:	Timeline:	Completed by:
Admin Logs (see Appendix B)	Admin logs provide a summary of the amount of time and how often Inclusion Coaches are engaged in conversations with program administrators, leadership teams and educators, as well as the amount of time spent in travel and prep/follow up from meetings and trainings. The Admin Logs provide an overall picture of the time, effort, and resources a particular program is requiring to implement the Pyramid Model. Admin Logs are completed once a month, tracking all activities of that month, and spreadsheets are submitted to the evaluation team.	Monthly	Inclusion Coaches
Coaching Logs	Coaching Logs provide a summary of the amount of time spent coaching and what types of strategies have been used. Coaching Logs are completed at each visit to the implementation program, and spreadsheets are submitted to the evaluation team.	Monthly	Inclusion Coaches
Coaching Practice BoQ	The Coach BoQs are designed to provide details at an individual level to help Inclusion Coaches organize their work and allow for reflection of their practices and provide data at a systems level to aid monitoring and evaluation of the implementation process.	Biannually	Inclusion Coaches
Early Childhood Program-Wide PBS BoQ	Designed to help programs evaluate their progress toward implementing the Pyramid Model program-wide.	Biannually	Program and Regional Leadership Teams
Provincial Leadership Team BoQ	Designed to assess the implementation of the Pyramid Model and determine action plans for future implementation.	Biannually	Provincial Leadership Team
TPITOS	The TPITOS tool is used to assess the implementation of the Pyramid Model practices in classrooms for children 0-3 years old.	Biannually	Trained Observers
TPOT	The TPOT tool is used to assess the implementation of the Pyramid Model practices in classrooms for children who are 2-5 years old.	Biannually	Trained Observers

For more information or to look at the tools listed above, click on the hyperlink attached to the tool name.

Appendix B

Admin Coaching Log

Coach ID:											
Program ID:											
Discussion/Meeting											
Date:	Week of:		Week of:		Week of:		Week of:		Week of:		Total
	# of times completed	# of minutes	# of times completed	# of minutes	# of times completed	# of minutes	# of times completed	# of minutes	# of times completed	# of minutes	# of times completed	# of minutes
Leadership Team Meetings												
Program Module Training												
Contact with Director/Pre-primary Program Lead* (logistics)												
Contact with Coachees												
Relationship building												
Total Discussion/Meeting Time for month (minutes):												
Preparation/Follow-Up												
Preparation/Follow-up for meetings												
Preparation/Follow-up for program training												
Total Preparation/Follow-Up Time for month (minutes):												
Total Travel Time (in minutes):												

Appendix C

TPOT Observation Cover Sheet

Date of observation: Click or tap here to enter text.
Coachee ID: Click or tap here to enter text.
Observer ID: Click or tap here to enter text.

Before the observation begins, you must look for the following inside:
- Visual schedule (SR 1 & SR 2)
- Behaviour expectations/rules (TBE 1)
- If learning centres have clear boundaries (RF 27)
- If there are wide open spaces to run in the room (RF 28)

*When scoring items 1 and 7, it is sufficient for educators to receive a score of yes if they verbally reference their visual schedule or behaviour expectations while outside.

1. The observation was completed:

   ☐ Fully inside
   ☐ Fully outside
   ☐ Both inside and outside
         Please describe what was observed inside: Click or tap here to enter text.
         Please describe what was observed outside: Click or tap here to enter text.
2. Was this their typical location (inside or outside) for this time of day since reopening?

   ☐ Yes
   ☐ No
3. Was their Coach the observer?

   ☐ Yes
   ☐ No
4. Were there any adaptations or modifications made to the observation?

   ☐ Yes (If yes, please explain Click or tap here to enter text.)
   ☐ No
5. How was the interview conducted?

   ☐ In person
   ☐ On the phone
   ☐ Other (please specific Click or tap here to enter text.)
6. When was the interview conducted?

   ☐ Same day
   ☐ Next day
   ☐ More than 1 day between observation and interview
7. Does this Coachee have module 1 training?

   ☐ Yes
   ☐ No
8. Notes (if applicable): Click or tap here to enter text.

Appendix D

Who is Involved

The support infrastructure that enables the implementation of the Pyramid Model in RCC and the PPP settings includes key stakeholders as outlined below.

Nova Scotia Early Childhood Development Intervention Services

The Pyramid Model is implemented by Nova Scotia Early Childhood Development Intervention Services (NSECDIS) through 28 service locations. NSECDIS is a province-wide provincial government funded program which provides specialized services and supports to families of young children from birth to school entry who are experiencing delays or difficulties in their development. The transition of the Pyramid Model implementation into NSECDIS began in July 2021 with the first round of existing Inclusion Coaches transferred over from their early childhood education support site. The remaining existing Inclusion Coaches transferred over to NSECDIS in September 2021. All Coach Team Leads and Inclusion Coaches are now employed by NSECDIS.

Provincial Leadership Team

The Provincial Leadership Team has been comprised of leaders responsible for the planning and supervision of all aspects of the Pyramid Model implementation. Team members have included representatives from the Nova Scotia DEECD, NSECDIS, Early Childhood Education Support Sites, the evaluation team, and community partners. The team has ensured that the necessary structure and resources are put in place and are available to guide the implementation of the Pyramid Model across Nova Scotia. With the transition to NSECDIS, the roles and responsibilities of the Provincial Leadership Team are shifting slightly. The Provincial Leadership Team continues to have discussions to determine their role as implementation moved forward.

Master Cadre

Twenty early childhood professionals were selected to act as Master Cadre, the holders of knowledge, for the Pyramid Model implementation across the province. The team of Master Cadre has representation from Nova Scotia DEECD, NSECDIS, Centre d'appui à la petite enfance de la Nouvelle-Écosse, Conseil scolaire acadien provincial, Chignecto-Central Regional Centre for Education, Strait Regional Centre for Education, Nova Scotia Community College – Burridge and Nova Scotia College of Early Childhood Education. Master Cadre are responsible for delivering Pyramid Model training modules to programs to support implementation across the province.

Evaluation Team

The evaluation team is led by Dr. Jessie-Lee McIsaac, a Tier II Canada Research Chair in Early Childhood, Diversity and Transitions and an Assistant Professor at Mount Saint Vincent University, cross-appointed between the Department of Child and Youth Study and the Faculty of Education. Using a developmental approach, the evaluation team informs the ongoing implementation of the Pyramid Model across the province within frequent reporting of emerging findings from evaluation activities.

Learning and Development Specialist

The Learning and Development Specialist for the Pyramid Model collaboratively designs and implements research-based orientation and professional development content, standards, procedures, and practices in line with the Pyramid Model for NSECDIS staff, particularly Coach Team Leads and Inclusion Coaches. They offer support and guidance to orient new team members to ensure all staff are confident in implementing the Pyramid Model practices with programs.

Data Management Specialist

The Data Management Specialist oversees the development and use of NSECDIS data systems to support ongoing service delivery within the community. They work in collaboration with Pyramid Model team members to support the delivery of quality services through the collection, analysis, storage and reporting of organizational and Pyramid Model specific data.

Regional Directors

Regional Directors lead and support the delivery of NSECDIS in their designed region and support the overall administration and management of the organization as required. Key duties may include admissions and review, caseload management, support for regional staff, liaising with community partners, and reporting on community needs and assets. Coach Team Leads and Inclusion Coaches are directly supported by Regional Directors.

Coach Team Leads

The Coach Team Leads are responsible for supporting Inclusion Coaches in their region throughout their implementation and caseload management. This role uses parallel processing to enhance experiential learning in the Inclusion Coaches. A reflective approach is used to encourage Inclusion Coaches to reflect on their coaching practices, modelling similar strategies which the Inclusion Coaches can utilize with their Educators. Coach Team Leads also support the program and regional leadership teams in their regions with readiness and strategies to facilitate the implementation of the Pyramid Model program principles and practices within their programs.

Early Childhood Education Support Sites

Located across the province, Early Childhood Education Support Sites provide guidance to Educators and other early childhood professionals at the community level. Support sites assist in building partnerships and provide resources specific to early childhood such as the delivery of professional development opportunities. Support sites were the original hosts of Inclusion Coaches before they transferred to NSECDIS. These support sites now serve as a community support for Inclusion Coaches.

Inclusion Coaches

Previously called Pyramid Model Coaches, the coaching team now consists of 19 Inclusion Coaches: two who support RCC only, nine who support the PPP only, and eight who supports both cohorts. These Inclusion Coaches are considered experts in early childhood and provide individualized on- and off-site external coaching and support to implementation programs. Inclusion Coaches support the Program and Regional Leadership Teams by collecting data, supporting the decision making process, planning for professional development, policy alignment and implementation program-wide. Seven additional Inclusion Coaches have been hired to begin in January 2022 who will support both cohorts.

Program/Regional Leadership Teams

These teams differ based on the early childhood setting they are in. Program Leadership Teams are formed by RCC centres who are participating in the Pyramid Model implementation and support RCC Cohort Educators within that particular centre. Specific members are determined at the local level and often consist of program administrators, educators, behavioural specialists (e.g., consultant or developmental interventionist), Master Cadre, Coach Team Leads, Inclusion Coaches, and family representatives. Regional Leadership Teams support the Pyramid Model implementation in all identified Pyramid Model PPPs in a given region. Nova Scotia has seven regional centres for education and one Francophone school board. These teams consist of principals, educators, Regional PPP Leads, behaviour specialists, Master Cadre, Coach Team Leads, Inclusion Coaches, community partners, and family representatives. Both teams utilize data to inform the ongoing

implementation of Pyramid Model practices and strategies, with the goal of adopting them program-wide.

Implementation Programs

There are currently nineteen RCCs and fifty-seven PPP schools across the province participating in the Pyramid Model in Nova Scotia. Pyramid Model RCC centres support children from 0-5 years of age and are licensed by the Nova Scotia DEECD. Pyramid Model PPPs support children the year before Primary.

Educators

Educators who have committed to implementing the Pyramid Model practices in their rooms. They participate in the coaching visits, reflective practices, data collection, action planning, and ongoing professional development as identified in their individualized action plans. There is currently data for eighty-seven RCC educators (forty-five remain active) and eighty-five PPP educators (sixty-four remain active).

Appendix E

Pyramid Model Theory of Change - April 2021

VISION: All Nova Scotia ECEs and programs have the capacity to support the social emotional well-being of children and their families in collaboration with a caring network of community partners.

MISSION: To lead the development of a sustainable infrastructure to implement the Pyramid Model, a system of professional development practices for ECEs that address the social emotional needs of Nova Scotia children and their families.

Conditions

External Influences
- High turnover within programs
- Attrition within Pyramid Model
- Government funding and ownership
- COVID-19
- Administrative structures of early childhood programs (e.g., non-profit/privately owned, RCEs/CSAP)
- Program infrastructure (e.g., available resources, physical space, access to internet)
- Variability in program quality
- Variability in workforce education and experience

Assumptions
- Supportive relationships are built between coaches, coachees, and programs
- Sustained commitment from stakeholders
- Continuing resources, commitment of funding
- Pyramid Model aligns with curriculum framework and EECD policy initiatives

Critical Assumptions
- Willingness to actively support and participate in Pyramid Model and Pyramid Model processes
- Individual, organization prioritization of Pyramid
- Implicit biases and racism are systematically addressed through Pyramid Model approach and practices

Long-term Outcomes
- Improved positive social emotional skills for children and youth
- Sustained regional and provincial infrastructure to support practice
- Stable and professionalized workforce
- Equitable systems to support all children

Intermediate Outcomes
- Decreased behavioral issues
- Improved child development outcomes
- Increased quality in implementation programs
- Reduced need for specialized services and support
- Increased job satisfaction and reduced turnover

Short-term Outcomes
- Increased understanding of Pyramid Model in families and early years community
- Increased knowledge and use of effective practice to support improved social emotional skills
- Increased leadership skills for coaches and coachees

Effective Implementation of Pyramid Model

Targets

- Sustained fidelity in use of Pyramid Model practices
- Implementing and sustaining infrastructure and support for regional and provincial implementation
- Enhanced internal and external collaborative support networks for families and other stakeholders
- Increased use of Pyramid Model practices
- Ongoing and responsive data-driven support to guide implementation
- Increased ability for program leadership team to make structural changes and build internal coach capacity for sustainability
- Increased opportunity for family engagement, communication, and input
- Increased capacity to coach ECEs to fidelity
- Increased capability in ECEs, coaches, and leadership teams to use data and data-based decision making
- Consistent and effective communication within and between stakeholders

Implementation Strategies / Implementation Drivers

Systems Administration
- Ensure supports and infrastructure are available and utilized from PLT organizations
- Ensure adequate and pragmatic use of resources and funding
- Use data to guide action planning
- Engage and grow champions for Pyramid Model to build capacity
- Provide administrative support to program/regional leadership teams and directors/leads
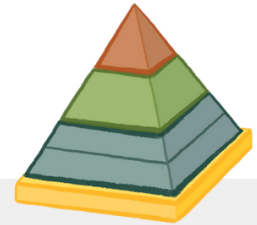
Data Services and Evaluation
- Provide access to data collection tools and systems
- Provide training and technical assistance on data-based decision making (programs)
- Use information to inform change
- Provide regular updates to Provincial Leadership Team

Leadership
- Establish a clear governance structure
- Establish a Provincial Leadership Team and associated sub-committees
- Engage partners and collaborate to shape implementation for NS
- Establish program and regional leadership teams
- Hold regular leadership team meetings (provincial and program/regional) to provide ongoing support and guidance on implementation
- Establish clear communication to and from stakeholders

Coaching
- Establish a cadre of coaches
- Establish coach team lead role to provide ongoing reflective supervision to coaches
- Provide coaching to ECEs and leadership teams

Training
- Deliver training on Pyramid Model tools and content (programs, coachees)
- Train Master Cadre to deliver training

Organization Drivers
Decision-support Data Systems, Systems Interventions, Facilitative Administration

Competency Drivers
Selection, Training, Coaching, Performance Assessment

Leadership Drivers
Adaptive Practices, Technical Practices

Resources

| Provincial Leadership Team and represented organizations | Research Network | Evaluation team | Implementation programs | Support sites | Internal and external support networks to programs | Program/Regional Leadership Teams | Master Cadre | Coach Team Lead | Coaches | Educators | Curriculum framework and EECD policy initiatives | Translation |

Pyramid resources/Consortium/NTI

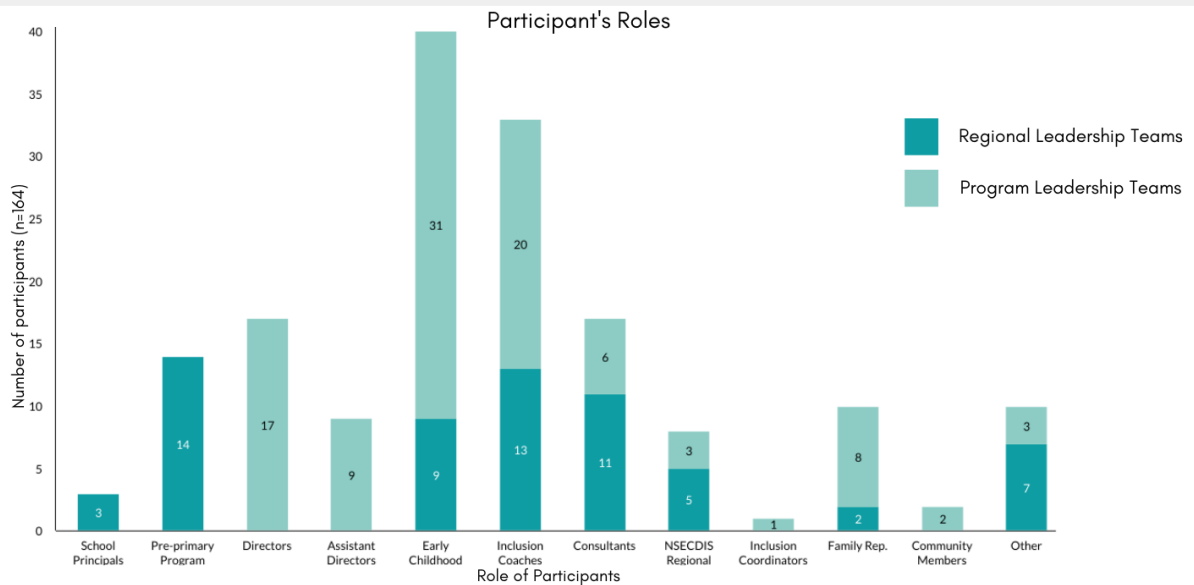Commitment of funding/EECD/Bi-lateral funding

Appendix F

Program & Regional Leadership Team Survey Findings

In December 2020, a survey was administered to Regulated Child Care Program Leadership Teams. One hundred individuals (n=100) from twenty (n=20) regulated child care centres responded to the survey across the province. Later, in May 2021, an adapted version of the same survey was administered to Pre-primary program Regional Leadership Teams. Sixty-four individuals (n=64) responded to the survey from seven (n=7) Regional Centres for Education and one (n=1) School Board. The purpose of these surveys were to learn about how Program and Regional Leadership Teams are functioning and what supports might be needed to move them forward with successful implementation of the Pyramid Model in Nova Scotia.

Below is a detailed summary of participant's roles and the key findings from the surveys.

Participant's Roles

Bar chart showing Number of participants (n=164) by Role of Participants, comparing Regional Leadership Teams and Program Leadership Teams.

- School Principals: Regional 3
- Pre-primary Program: Regional 14
- Directors: Program 17
- Assistant Directors: Program 9
- Early Childhood: Regional 9, Program 31
- Inclusion Coaches: Regional 13, Program 20
- Consultants: Regional 11, Program 6
- NSECDIS Regional: Regional 5, Program 3
- Inclusion Coordinators: Program 1
- Family Rep.: Regional 2, Program 8
- Community Members: Program 2
- Other: Regional 7, Program 3

REGIONAL LEADERSHIP TEAMS

PROGRAM LEADERSHIP TEAMS

Working Relationship Among Leadership Teams

(n= 64)

- Many participants reported a positive working relationship and meeting experiences
- Relationships were described as supportive and respectful
- Several participants discussed working collaboratively to support the implementation of the Pyramid Model

(n= 91)

- Many participants reported a positive working relationship and meeting experiences
- Relationships were positively stated as collaborative, supportive and respectful
- Communication was reported to be good and consistent
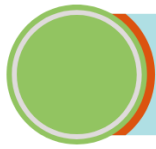
REGIONAL LEADERSHIP TEAMS
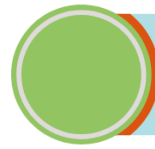
PROGRAM LEADERSHIP TEAMS

Meeting Facilitation and Decision-Making Process

(n=60, n=60)*

(n=75, n=83)*

- Use of virtual meetings in response to COVID-19
- Many respondents indicated that meetings are led by an agenda
- Majority of participants reported making decisions in consensus
- Some discussed using a voting system to reach decisions

*Questions were asked separately, therefore n= reflects how many participants responded to each question

- Use of virtual meetings in response to COVID-19
- Inclusion Coaches are the ones facilitating meetings, setting agendas and suggesting ideas
- Decisions are a group effort and made in consensus
- There is an open-floor policy to share ideas and provide feedback
- Exec. Directors have the last say in decisions
- Decisions are made in the best interest of the children, staff and centre

"
Everyone provides their opinions and then we decide what work best.
[Program Leadership Team Partcipant]

Each team member is valued and we usually all agree when making decisions
[Program Leadership Team Partcipant]

"
Open communication and respectful conversations are the basis for our problem solving process. Taking time to recognize our own values and beliefs, the philosophy of the program and collaborate from a strengths based approach has helped keep our disagreements to a minimum.
[Regional Leadership Team Participant]
"

Process for Conflict Resolution

(n=60)

(n=80)

- Have not experienced any disagreements to date
- Collaborative and respectful discussions to reach a consensus to avoid or resolve conflicts and disagreements
- If clarification is needed, participants reported going to a provincial person, Inclusion Coach, a Consultant or Coach Team Lead to clarify things as needed

- No issues, conflicts or disagreements
- Communication has worked well for resolving disagreements or conflicts within meetings
- Collaboration to either avoid or resolve conflicts and disagreements
- Allowing time to further research or check in with other resources was an effective strategy to work through conflicts and disagreements

Experience with Completing Benchmarks of Quality (BoQ)

(n=60)

- Completion of BoQs is a positive, collaborative and efficient process
- BoQs guide discussions at meetings
- Some challenges that participants discussed in reference to the completion of BoQs include: the amount of time it takes to complete, wording and meaning of some items, such as it being confusing, daunting, and overwhelming.

(n=76)

- Overall, completion of the BoQs has been a good experience
- Coach support was identified as being helpful
- Some challenges that participants discussed in reference to the completion of BoQs include: process is intimidating, the language was confusing, it was a long process and a lot of work and there was difficulty uploading and submitting to Evaluation Team

Additionally, participants were asked their agreement with the following statements.

The percentages reflect the combined total of the participants who selected "strongly agree" and "agree".

Participants level of agreement with the following statements:	Regional Leadership Teams (n=60)	Program Leadership Teams (n=84)
I feel comfortable/safe to voice my opinion	68%	94%
My input is valued and respected	97%	93%
My Leadership Team uses collaborative decision making	88%	89%
Information discussed remains confidential	90%	93%
Our meetings stay on task	95%	93%
Our meetings are organized	92%	90%
Key decisions discussed at our meetings are shared with outside stakeholders	63%	87%

"This has been a very positive experience. Our team meets regularly and we have been able to set goals and accomplish them through a dedicated vision, agenda, purposeful meetings and collaboration."
[Regional Leadership Team Participant]

"I enjoy this time together it helps us to see how well things are going and lets the parents involved really hear what things look like in the class..."
[Program Leadership Team participant]

Thank you Message!

"Thank you for having us be a part of the Pyramid Model for promoting social competence in infants and young children- positive behavioral intervention is a strong tool to utilize and we are fortunate to be a part of this model".
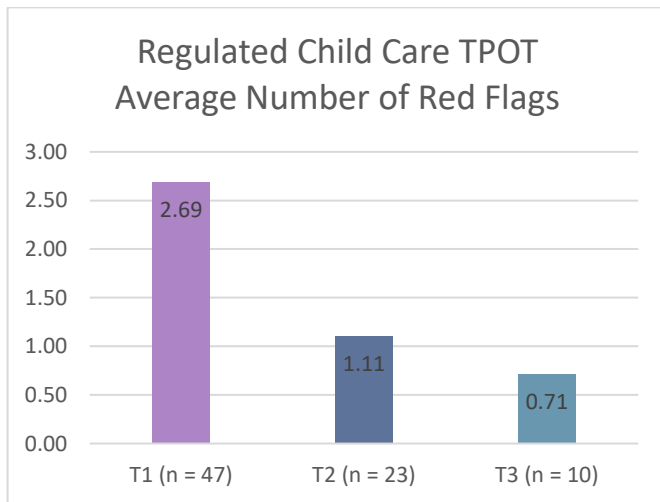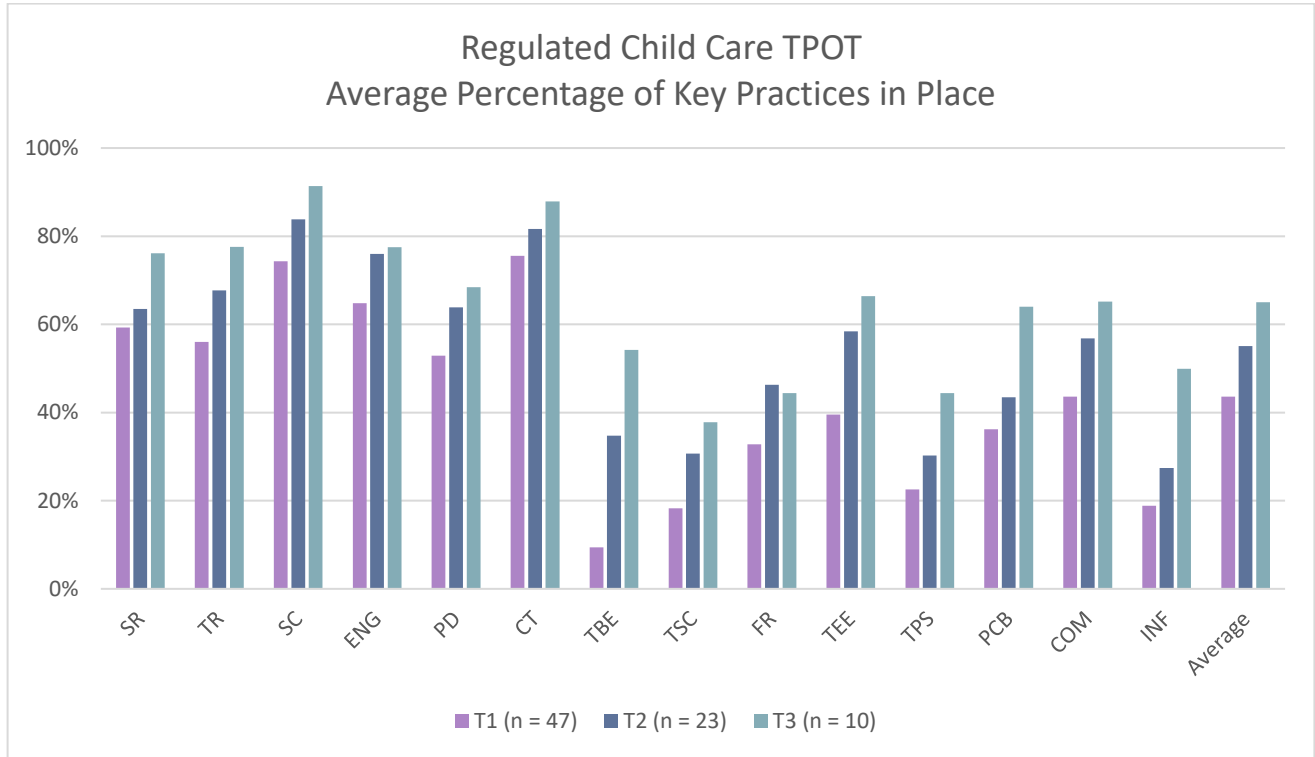*[Program Leadership Team Participant]*

Early Childhood Collaborative Research Centre

Nova Scotia
Nouvelle-Écosse
Pyramid Model
Modèle de la Pyramide

Promoting Social & Emotional Competence in Nova Scotia's Young Children
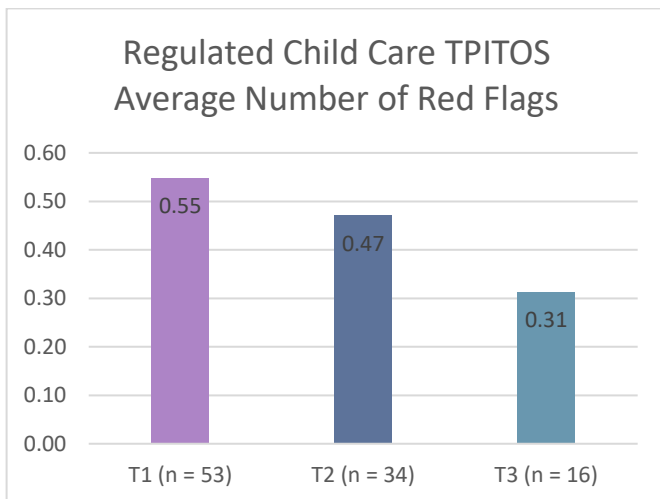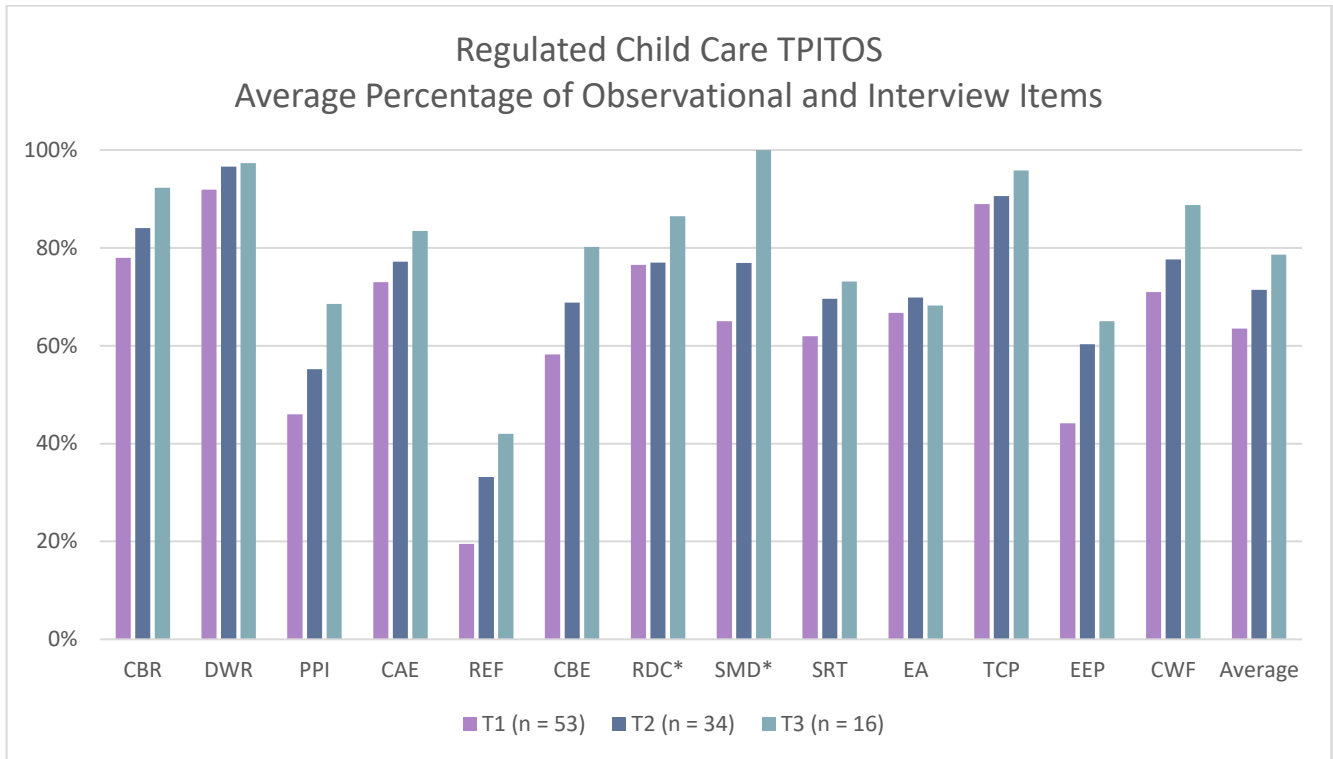Favorisant la compétence socio-émotionnelle des jeunes enfants de la Nouvelle-Écosse

Appendix G

Data below represents all data obtained through the Pyramid Model implementation for RCC Cohort educators who have had a TPOT up to time three. Time four and five were omitted due to small sample numbers. Timing of data collection varies due to when the educator was onboarded and the length of time between observation.

Regulated Child Care TPOT
Average Percentage of Key Practices in Place

Regulated Child Care TPOT
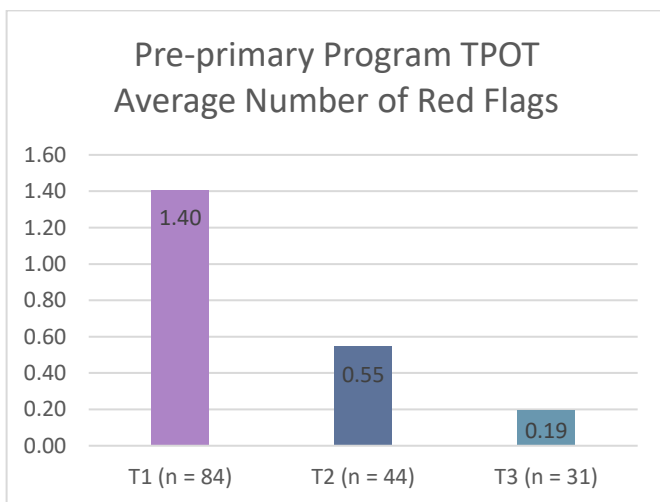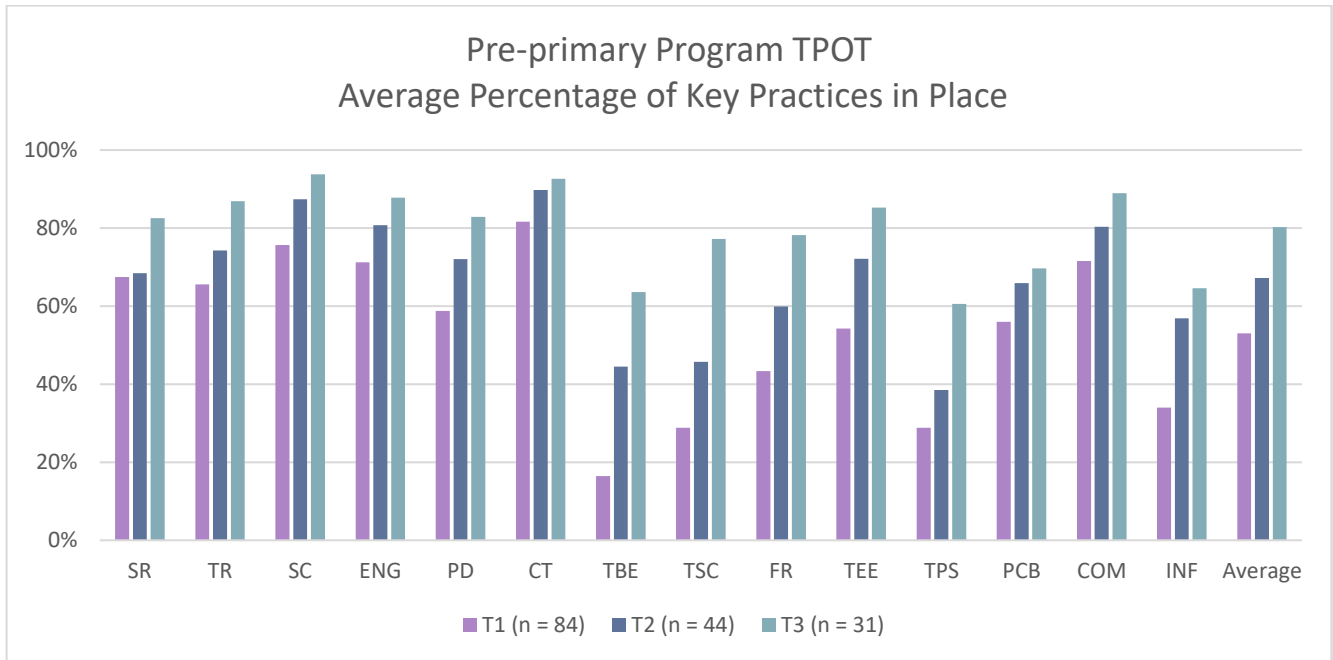Average Number of Red Flags

Appendix H

Data below represents all data obtained through the Pyramid Model implementation for RCC Cohort educators who have had a TPITOS up to time three. Time four was omitted due to small sample numbers. Timing of data collection varies due to when the educator was onboarded and the length of time between observation.

Regulated Child Care TPITOS
Average Percentage of Observational and Interview Items

Regulated Child Care TPITOS
Average Number of Red Flags

Appendix I

Data below represents all data obtained through the Pyramid Model implementation for PPP Cohort educators who have has a TPOT up to time three. Subsequent timepoints were omitted due to small sample size. Timing of data collection varies due to when the educator was onboarded and the length of time between observation.

Pre-primary Program TPOT
Average Percentage of Key Practices in Place

Pre-primary Program TPOT
Average Number of Red Flags

Appendix J

Family Experiences with the Pyramid Model

This survey aimed to provide families with an opportunity to share their thoughts about the Pyramid Model implementation at their child's regulated child care centre.

21 child care centres were contacted via email and sent recruitment packages (i.e., posters and post cards). They were asked to share recruitment materials with their families who have children in classrooms that are participating in the Pyramid Model.

A total of 9 parents participated in the family survey. The majority of parents (6) were recruited from one centre. The remaining 3 were recruited from two other centres.

Connection

All participants stated that they felt comfortable talking to their child's educators.

The majority of participants stated that they felt connected with the learning program community.

Culture

All participants stated that they felt that their child's educators were responsive to their culture and identity.

All participants stated that they felt that their culture was reflected in their child's classroom.

Informed

All participants stated that the educators kept them informed about their child's progress

The majority of participants stated that their educators shared information about their child's friendship skills and how their child manages emotions.

Family Quotes:

"My child feels very comfortable with her educator relative to other adults from outside the home."

"I'm satisfied because of the pandemic but I would love to see his classroom and how he interacts with others, and to learn more about whether he is hitting his milestones."

"I am given an end of day report on my child's experiences and how his day went. I am informed of progresses and if he had any challenges."

Six out of nine participants were aware of the Pyramid Model Initiative in their child's classroom.

Parents said what they know about the Pyramid Model came from daycare staff. Most did not provide specific examples, but one parent said that they were aware that the initiative involved positive strategies for child development (i.e., transitions, emotional regulation, etc.).

NSECDIS

Nova Scotia
Nouvelle-Écosse
Pyramid Model
Modèle de la Pyramide

Promoting Social & Emotional Competence in Nova Scotia's Young Children
Assomont les compétences socio-émotionnelle des jeunes enfants de la Nouvelle-Écosse

Early Childhood
Collaborative
Research Centre
eccrc