

Expert Report of Dr. Julie Koudys

Prepared By:

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1. I am Julie Koudys. I have a Ph.D. in Psychology from York University, I am a registered clinical psychologist in Ontario and I am a Board Certified Behaviour Analyst at the Doctoral level (BCBA-D). I have attached my CV to this report (**Tab 1**).
2. I have been engaged by or on behalf of the Lawyers for **Student** to provide this declaration on **Student's** needs and his/her required accommodation of ABA in the classroom setting.
3. I acknowledge that it is my duty to provide evidence in relation to this matter that is fair, objective, non-partisan, and relates only to matters that are within my area of expertise.
4. I acknowledge that the duty referred to above prevails over any obligation which I may owe to any party by whom or on whose behalf I am engaged.

Summary of Qualifications for Expert Opinion

5. I have a Ph.D. in Clinical Psychology from York University. I am a scientist-practitioner with expertise in autism spectrum disorder, developmental disabilities, applied behavior analysis, and clinical-developmental psychology.
6. I am an Assistant Professor at Brock University. I teach graduate level course work in ABA. I predominantly teach upper level ethics and professional practice courses, including training students in the standards of the Professional and Ethical Compliance Code for Behavior Analysts by the Behavior Analysts Certification Board® (BACB, 2014, *Professional and Ethical Compliance Code for Behaviour Analysts*). I taught and provided clinical supervision to several Board Certified Behavior Analysts (BCBAs) who now work in education environments, including public/catholic school boards in Ontario.
7. I was recently approved by the Disciplinary Review Committee of the BACB to provide mentorship as part of Code Compliance/Corrective Action for a BCBA certificand who violated the Professional and Ethical Compliance Code for Behavior Analysts (BACB, 2014, *Professional and Ethical Compliance Code for Behaviour Analysts*).
8. I recently co-authored two book chapters related to autism and evidence-based intervention (i.e., Early Intensive Behavioural Intervention; EIBI or Intensive Behavioural

Intervention; IBI). I have presented at numerous conferences and conducted workshops on the topic of ASD and behaviour analysis.

9. I was recently the Chair of the Ontario Scientific Expert Taskforce for the Treatment of ASD, an *ad hoc* committee formed by the Ontario Association for Behaviour Analysis (ONTABA). I received the 2017 ONTABA Research Award for my role on this committee, which produced a comprehensive review of scientific evidence and practice guidelines related to the treatment of ASD “*Evidence-Based Practices for Individuals with Autism Spectrum Disorder: Recommendations for Caregivers, Practitioners, and Policy Makers*” (Ontario Association for Behaviour Analysis; ONTABA, 2017), as well as a brief caregiver version of the report (ONTABA, 2018, *ONTABA: Evidence-Based Practices for Individuals with ASD – Recommendations for Caregivers, Practitioner, and Policy Makers (Caregiver Brief Report)*).
10. I am currently an appointed member of the Ministry of Child and Youth Services Autism Spectrum Disorder (ASD) Clinical Expert Committee. Committee members are tasked with providing advice to the Minister on up-to-date, evidence-based research on effective clinical practices. (The opinions I present in this report and through my testimony are my own and do not reflect my involvement on the MCYS Clinical Expert Committee).
11. I am a Clinical Supervisor of Applied Behaviour Analytic (ABA)/Intensive Behavior Intervention (IBI) programming in private practice. I have provided training and consultation in broad spectrum ABA across Canada to public schools, hospitals, children’s mental health programs, and providers of ABA services. I was previously a provincial trainer for Instructor Therapists (ITs) in the MCYS funded Intensive Behavioural Intervention (IBI) program, as well as a Senior Therapist and Clinical Supervisor. I have experience supervising ABA/IBI programming for children and youth with ASD, with varying developmental and behavioural needs from preschool to adolescence (i.e., early learners, intermediate learners, advanced learners). I am able to speak to the changing needs of children across developmental and chronological ages.
12. I have extensive experience related to ABA and education for children with ASD. I helped design ABA transition classrooms, consulted to Section 23 classrooms providing services to children with ASD and comorbid intellectual disabilities, and have transitioned numerous children from IBI to the classroom environment. I currently provide clinical supervision to children in an ABA school, as well as children receiving ABA in the regular classroom environment, funded through Ministry of Child, Community and Social Services.

13. I was previously accepted by the Human Rights Tribunal as an expert for the *J.S. v Dufferin-Peel Catholic District School Board* case.

Materials Reviewed for this Report

14. For this Declaration, I have reviewed **Student's** Neurodevelopment Pediatric Clinic ASD Diagnosis Report, **Service Provider 1's** Briefing Notes, **Service Provider 2** OAP documents including **Student's** ABLLS for 2017/18, his/her service plan and behaviour plan, **Student's** report cards, his/her 2017 and 2018 IEPs, and related documents from the Board such as Structured Learning Class as well as the notes taken by the ABA-Facilitator.
15. I have also reviewed and reference relevant documents such as the ABLLS-R Linked to Ontario Kindergarten Curriculum document and various documents from the field of ABA.
16. In addition to the documents described above, I participated in two observations of **Student**. One took place at his/her school (**School**) and the other at his/her daycare centre (**Daycare Center**) where he/she receives ABA programming implemented by **Service Provider 2**. In both settings I completed half day observations in the morning on two consecutive days.

Student's Diagnosis, Strengths and Weaknesses

17. **Student** was diagnosed by **Doctor 1** with **syndrome**, Global Developmental Delay (GDD) and Autism Spectrum Disorder (ASD). To my knowledge there has been no psychoeducational assessment. The existing diagnostic reports and assessments, in conjunction with curriculum assessments completed by **Service Provider 2** which are summarized in his/her OAP service plan, are sufficient to demonstrate that **Student** exhibits autism symptomatology at the severe end of the ASD spectrum and requires evidence-based ABA. A psychological/psychoeducational assessment at this time would not change or add to the conclusion that **Student** requires ABA.
18. As a result of **Student's** GDD diagnosis, he/she presents with significant deficits in his/her intellectual functioning (e.g., reasoning, problem solving, thinking) and his/her adaptive functioning (e.g., communication, self-help skills, social skills).
19. As a result of his/her ASD diagnosis, **Student** presents with significant persistent deficits in social communication and social interaction, as well as restricted, repetitive behaviours, interests or activities.

20. These skill deficits and behavioural excesses are *in addition to* the deficits expected for his/her general developmental level. In other words, **Student's** developmental level is extremely delayed for his/her age, as evidenced by his/her GDD diagnosis (**Doctor 1, Date**) and by scores in the "low range" on the Vineland Adaptive Behavior Scales-II as reported by **Person 1, Person 2** and **Doctor 2 (Service Provider 1, Date)**. His/her cognitive and adaptive deficits are exacerbated by his/her ASD symptomatology, which was reported to be towards the severe end of the autism spectrum (**Doctor 1, Date** and **Service Provider 1, Date**).
21. A review of **Student's** diagnostic report and the **Service Provider 1/Region** Autism Services Brief Screening Summary indicate that at the time of these assessments **Student** experienced deficiencies across many developmental domains, including on-task behaviour, social skills, play skills, sensory development (e.g., auditory, touch), imitation skills, communication skills, self-care skills, and motor skills. Similarly, a review of his/her most recent Assessment of Basic Language and Learning - Revised (ABLLS-R) conducted by **Service Provider 2 (Date)** indicates that although **Student** has made slow and steady gains in his/her ABA programming between March 2017 and September 2018, he/she continues to present with significant deficits across all areas of development, including visual performance, receptive and expressive language, imitation skills, play skills, social skills, group instructions, classroom routines, academics, gross and fine motor skills, and self-care. Given the observable gains noted on **Student's** ABLLS-R, many of which correspond to areas in which **Student** was receiving ABA intervention, it appears these gains are a result of the ABA programming provided by **Service Provider 2** (at both **Service Provider 2** and the daycare). My belief that **Student's** gains are attributable to his/her ABA services is further informed by my knowledge of the extant literature which clearly indicates that children with ASD do not make significant skill gains without ABA intervention. For these reasons, I believe it is highly unlikely that the majority of **Student's** gains are attributable to sources other than ABA.
22. Relative strengths were identified in **Student's** Family Service Plan (**Service Provider 2, Date**) in the areas of emerging social development (i.e., interest in watching his/her peers), communicative intent and some use of an augmentative/alternative communication system (i.e., the Picture Exchange Communication System), early receptive language skills and cooperation. However, it is important to note that these were described as "relative" strengths, meaning that in comparison to other areas of **Student's** development these areas were relatively stronger.

Student's Need for ABA

23. As a result of **Student's** dual diagnosis, he/she requires ABA in order to gain skills and reduce or prevent the occurrence of repetitive, restricted behaviours which may interfere with learning. ABA as an intervention for individuals with ASD has been identified as best practice in multiple comprehensive, systematic reviews (National Autism Centre, 2015, *National Autism Centre Findings and Conclusions: National Standards Project, Phase 2. Addressing the Need for Evidence-Based Practice Guidelines for Autism Spectrum Disorder*; and National Professional Development Centre, 2014 *Evidence-Based Practice and Autism in the Schools: an educator's guide to providing appropriate interventions to students with autism spectrum disorder, 2nd Edition, National Autism Center*). No such evidence exists for general education methods for children with ASD. In fact, comparisons between general education (treatment as usual) and ABA have consistently demonstrated the superiority of ABA as an educational approach for children with ASD (Eikeseth, S., Smith, T., Jahr, E. & Eldevik, S., *Intensive behavioral treatment at school for 4- to 7-year-old children with autism: A 1-year comparison controlled study. Behavior Modification, 26(1), 49-68.*; **Tab 2:** Eikeseth, Smith, Jahr & Eldevik, 2007; Howard, J. S., Sparkman, C. R., Cohen, H. G, Green, G., & Sanislaw, H.A., *Comparison of intensive behavior analytic and eclectic treatments for young children with autism. Research in Developmental Disabilities, 26, 359-383*). For this reason, **Student** requires ABA in order to:
- a. develop foundational skills across all areas of development which are impacted by his/her diagnoses (e.g., expressive and receptive communication, play and social skills, self-help skills, pre-academic skills, motor skills, etc.), and
 - b. meaningfully access the school curriculum.
24. The evidence related to children with ASD, many of whom have significant intellectual and adaptive impairments, is clear; ABA is the most effective, and therefore necessary, educational/intervention* approach. (**ABA is described in many ways as an intervention or therapy, as an educational approach or form of specialized education, or as an approach or accommodation; for the purposes of this declaration I am using these terms interchangeably*). The level of intensity of ABA programming, as well as the setting in which ABA is implemented and the nature of the approach (i.e., direct one-to-one instruction, dyad, group-based, mediator training, parent implemented) may change over time based on a child's demonstrated need(s). In **Student's** case, at the present time and for the foreseeable future, it is my opinion, that he/she requires ABA programming, delivered over many hours, across a diversity of activities (known as "comprehensive ABA") in order to access his/her education.
25. With respect to the Ontario Kindergarten Program, many of **Student's** deficits link

directly to key areas in the Ontario Kindergarten curriculum and could therefore be addressed using ABA within the classroom. Examples of how this might look are provided in “Linking ABLLS®-R to the Kindergarten Program” (2010). (Although there have been curriculum updates since this document was published, the general idea that Ontario Kindergarten curriculum goals and goals identified through a curriculum guide such as the ABLLS-R may be integrated remains salient). This document demonstrates that ABA is an educational approach.

26. For example, deficits identified in **Student’s** most recent ABLLS-R assessment (**Service Provider 2, Date**) include waiting to do activities and standing and waiting appropriately during transitions (ABLLS-R codes N5, N10). These targets would appropriately be captured by Ontario Kindergarten Curriculum targets in the area of Personal and Social Development, such as “demonstrates the ability to take turns in activities and discussions”. Similarly, **Student’s** receptive language deficits as identified on the ABLLS-R, such as touching parts of items and selecting adjectives (ABLLS-R codes C23, C24) could appropriately be integrated into Ontario Kindergarten Curriculum Language targets such as “follows one and two step directions in different contexts”. Finally, early academic skills were identified as an area of deficit for **Student** in the ABLLS-R, including deficits in foundational numeracy skills such as matching objects/amounts, counting objects, etc. (ABLLS-R codes B3-B7, R3, R4, R8). These targets could be integrated into Ontario Kindergarten Curriculum Mathematics targets such as “begin to make use of one-to-one correspondence in counting objects and matching groups of objects”. I will elaborate on these connections in my testimony.

Summary of Observations

27. My opinion of **Student’s** strengths and needs, including his/her education requirements, was further informed by two observations of **Student**, one at his/her daycare (**Daycare Center**) and the other at his/her school (**School**). At his/her daycare, **Student** receives ABA programming designed and delivered by his/her ABA team at **Service Provider 2**. I observed **Student** between approximately 9:00 am to 12:00 pm in both settings.
28. At his/her daycare **Student** was predominantly engaged in programming in a small, separate room which he/she worked in one-to-one with his/her ABA therapist. Although he/she participated in one group craft activity with his/her peers (involving painting and pasting shapes) with the support of his/her ABA therapist, it was reported by his/her Senior Therapist (**Therapist**) that the significant variation in the schedule of activities at the daycare makes it difficult to establish ongoing learning activities within the group setting. As such, his/her ABA therapists attempt to capture these opportunities within the group setting when possible, but they also teach similar skills (e.g., gluing/pasting) within

his/her one-to-one ABA to ensure regular, frequent teaching opportunities. In the group activity, **Student** required assistance in the form of physical and gestural prompts from his/her ABA therapist in order to complete the craft. During his/her one-to-one ABA programming similar prompts were used to support **Student's** gluing. *(It should be noted that **Student** has a written ABA program for gluing/pasting that involves the use of different types of glue, e.g., squeeze bottles, tubs of glue with spreaders, glue sticks. These materials were selected based on those available at the daycare and in his/her kindergarten classroom in an attempt to program for generalization. Further, systematic teaching strategies are written into the program, including prompting and prompt fading strategies. Data are collected on his/her performance and it was noted by his/her ABA therapist that according to his/her data he/she has mastered using a glue stick, and the day before he/she mastered using a pot of glue with a spreader.)* During his/her group involvement **Student's** teacher helped him/her wash his/her hands, which he/she did for the majority of students. However, **Student's** engagement at daycare was predominantly supported by his/her ABA therapist who ensured he/she was on-task and engaged in the group activity, and that target skill development goals were integrated as was possible/appropriate.

29. **Student** also participated in lunch with his/her peers. He/she sat at the table with his/her ABA therapist beside him/her. **Student** has a written ABA program for the goal of independently eating with a spoon. To this end, **Student's** ABA therapist prompted **Student** to use his/her spoon to take each bite. His/her ABA therapist was aware of the current prompt level (he/she reported it should be a partial physical prompt at his/her shoulder in order to stabilize his/her shoulder as he/she lifts the spoon to his/her mouth). However, as the lunch that day was soup he/she required an increased prompt level (at his/her elbow or wrist) in order to be successful. For this reason, his/her IT noted that he/she would receive "negatives" on his/her data sheet for each trial with those prompt levels and he/she reported that he/she would enter the data immediately following lunch. During lunch **Student** briefly became tearful. This appeared to coincide with an increase in activity and volume in the group of children near him/her. When this subsided **Student** appeared calmer. His/her ABA therapist reported this isn't uncommon and is generally brief. It is important to note that **Student** was appropriate when near his/her peers in all activities. Further, he/she demonstrated emerging independence in several steps within

these daily routines (i.e., going to the sink to wash his/her hands – but requiring some support to fully wash his/her hands, raising his/her arms to remove his/her bib after eating – but requiring some support to fully remove his/her bib). It is my professional opinion that if **Student** had regular access to these natural learning opportunities, with ABA programming integrated into these activities, he/she would more efficiently gain skills and demonstrate increased independence.

30. In his/her one-to-one ABA programming I observed **Student** participate in the following acquisition programs (meaning skills **Student** was currently learning): requesting with PECS at Phase IV (two-picture sentence construction), receptive identification of common objects in pictures, labelling pictures of common objects, fine motor tasks, gluing, isolating his/her pointer finger, and imitation of foot and leg movements.
31. Before beginning teaching, **Student's** ABA therapist conducted a “multiple stimulus without replacement preference assessment” in order to identify the items/activities **Student** was interested in working for. Intermittently during the observation, he/she further assessed his/her preference by conducting “forced choice preference assessments” during which two options were provided to **Student** prior to a work task and he/she was able to work to access the desired item/activity. During teaching, **Student's** ABA therapist interspersed mastered tasks with these programs that were considered to be in acquisition (i.e., not mastered). For example, he/she would ask him/her to imitate his/her actions, touch different body parts, and follow simple instructions in between asking him/her to complete more difficult or new skills.
32. During his/her one-to-one programming there was clear evidence of the use of ABA. For example, the PECS protocol, which was created by Andy Bondy and Lori Frost, suggests using a variety of ABA strategies, including “backward chaining” (teaching one step in a sequence at a time, beginning with the last step in the sequence) in combination with the systematic use of prompting and prompt fading to teach the child to touch each picture on the sentence strip when making a request (Collet-Klingenberg, 2008, **Tab 3**). **Student's** ABA therapist consistently used this approach to teach **Student** to use PECS. Further, he/she was able to report which steps in the sequence were mastered (i.e., constructing the two-picture sentence) and which steps were in acquisition (i.e., tapping the pictures). Additionally, there was clear evidence of the use of systematic prompt fading across trials and data were recorded following each trial as per the PECS protocol (Collet-Klingenberg, 2008, **Tab 3**). This data included an indication of **Student's** level of independence or required prompt level on each step in the sequence. *(It should be noted that this level of detail allows the ABA team to analyze where in the communicative interaction **Student** might be having difficulty. These data can then be used to alter teaching strategies to specifically facilitate*

improved performance). Nearly all of **Student's** requests were followed by brief periods of access to preferred items/activities (i.e., he/she was given access to reinforcers). During this time his/her ABA therapist often recorded data or prepared materials for the next activity. At times, his/her ABA therapist would not immediately reinforce his/her request and would inform him/her that he/she could work for the reinforcer. Then following approximately 3-4 tasks he/she would deliver the requested reinforcer.

33. In his/her other programs there was also clear evidence of the use of ABA. His/her therapist referred to a binder with written ABA programs. These programs indicated the current teaching targets (e.g., which pictures/objects **Student** was learning about), the level and nature of prompt to use, the required response to correct and incorrect responses, and the nature of data collection. His/her ABA therapist was observed to regularly refer to the written program, set-up materials and use prompts in accordance with the program, collect data on **Student's** performance on each teaching trial, and use ABA error correction strategies as needed. Following correct responses **Student** received reinforcement on a variable schedule of 3 (VR3; meaning approximately every 3 responses he/she received reinforcement). I conducted several probes in which I took data on **Student's** performance and compared that to the data of the ABA therapist and found good accuracy and reliability. I also took data on his/her ABA therapist's adherence to his/her VR3 schedule of reinforcement and found good adherence. *(Reinforcement is one of the most effective teaching strategies in ABA, as such, it's correct implementation in order to build new skills is essential.)* Importantly, **Student's** ABA therapist was able to identify which programs were in acquisition and therefore most-to-least prompting was to be used in order to reduce errors and enhance learning, and which programs had met mastery criteria and so least-to-most prompting should be used in order to facilitate independence. The use of most-to-least prompting, and prompt fading across trials to facilitate independent responding was observed. Further, his/her ABA therapist was able to describe, and implement, program revisions that had been made when the data indicated that **Student** was not making gains as expected in a particular program (e.g., an additional prompt to increase his/her attending to pictures was embedded in his/her labelling program in order to facilitate success).
34. **Therapist** reported that the nature of the activities during the observation, and **Student's** performance in the activities, was typical. He/she reported that the only difference was that his/her formal toileting program (which includes systematic teaching strategies, a predetermined toileting schedule, and a predetermined time that **Student** was expected to sit on the toilet during each visit) would not be run as typical. This decision was made as it was believed that observing the toileting program would limit the opportunity to observe **Student's** performance on other tasks in the brief observation period. Rather,

Student was taken to the bathroom (as per his/her program) following a request using PECS, and supported in the bathroom routine, but did not sit for the specified time as per the program (15 minutes). **Student** brought his/her PECS binder with him/her to the bathroom.

35. In terms of progress monitoring and supervision, **Therapist**, BCBA, reported that he/she observes **Student** minimum once per month for several hours in his/her daycare setting. Additionally, he/she sees him/her minimum every other week at **Service Provider 2**. He/she reviews his/her data every other week. He/she meets with his/her lead ABA therapist (or Instructor Therapist) on a weekly or biweekly basis to monitor progress. Further, his/her Clinical Supervisor, **Doctor 3**, C.Psych., BCBA-D sees **Student** on an as needed basis and was scheduled to see him/her the week following my observation.
36. At his/her school I observed **Student** in his/her regular kindergarten classroom with his/her Educational Assistant (**EA Name**) and his/her classroom teacher (**Teacher**). He/she participated in circle time in which all students sat on the carpet and attendance was taken. **Student** sat appropriately in his/her box chair directly in front of the teacher. His/her EA was about 6-7 feet away sitting in the chairs adjacent to the carpet area. When his/her name was called, he/she oriented to the teacher and independently raised his/her hand. He/she stood independently for "Oh Canada" when his/her peers stood up. However, he/she oriented away from the flag and his/her peers. While seated and while standing he/she remained relatively quiet, but he/she did engage in repetitive motor movements such as arm flapping and rocking. He/she did not receive any redirection from his/her teacher or his/her EA to orient towards the flag and his/her peers and to keep his/her hands still during the anthem.
37. Following circle, the teacher then informed the class it was time for centres and informed the class which centres were available, as indicated by pictures of different activities on the chalkboard. All students independently went to an activity, **Student** required individual instructions from his/her teacher in order to select an activity. He/she indicated, by gesturing to the music picture, that he/she would like to listen to music. His/her teacher turned the music on and he/she listened independently to the music for approximately 1 minute, but then he/she left the music station and went to his/her PECS binder (situated approximately 20 feet away across the room). While looking at his/her PECS binder his/her EA was approximately 15-20 feet away with another group of children. **Student** eventually created a two-picture sentence and delivered this to his/her EA. His/her EA informed him/her that his/her requested activity (listening to the wheels on the bus) was not available. He/she was not offered other options or activities at this time, nor was he/she supported to select a different activity (I was informed by **Student's** EA and teacher that **Student** was on "free choice" at this time as he/she did

not appear to be engaged in a specific centre.) **Student** returned to his/her binder and again created a sentence requesting “wheels on the bus”. Again, when he/she delivered this request to his/her EA he/she was informed that this was not available. His/her EA explained that sometimes he/she is allowed to have this, but not always. But that currently the computer is broken so it is unavailable. At this time **Student** showed some interest in the centre that had a number of shapes in a bucket. But he/she was redirected to the board in order to choose another activity/centre from the pictures on the board. He/she did not make a choice, despite his/her teacher reading the options from the board individually. Eventually he/she was guided to complete a puzzle. A “first, then” board was then placed in front of him/her and the pictures were pointed at by his/her EA. **Student** did not participate in the use of the “first, then” board (i.e., he/she did not place the work picture or puzzle picture on the board, he/she did not select a reinforcer picture and place it on the board). **Student’s** EA then removed the puzzle pieces from the board and labelled several pieces. He/she then modelled putting some pieces in the puzzle. At times his/her EA handed him/her the puzzle pieces to put in the puzzle, at other times he/she partially placed the pieces in the puzzle. There was no observable systematic strategy to the use of prompts, different approaches were used for each puzzle piece. With assistance **Student** eventually completed the puzzle and was told to go and play with no reference to the “first, then” board. It did not appear as though **Student** understood the “first, then board” or that it was being used a meaningful way to allow him/her to independently indicate his/her chosen work centre, and his/her chosen “free choice” (i.e., reinforcer). He/she was offered many different options in terms of possible options he/she could choose, such as to play with blocks or paint. **Student** shook his/her head “no” to each of these. He/she was asked if he/she needed to go to the bathroom (head shake “no”) or if he/she would like water (head shake “no”). It did not appear as though reinforcement was systematically being used or delivered in a manner that would enhance **Student’s** rate of learning.

38. Shortly after, **Student** was informed that it was time to go to the bathroom and he/she was guided by the hand to the bathroom. Two staff supported **Student** in his/her use of the bathroom. There was no reported official toileting program. However, staff report they bring him/her several times in the day (e.g., 9:45, 11:15, 2:45) and whenever he/she requests the bathroom using PECS. During the toileting routine his/her EA noted that if they try to leave the bathroom too early **Student** might cry as an indication that he/she is not ready to leave. I asked if he/she would communicate with them using PECS and it was reported that he/she doesn’t bring his/her PECS binder to the bathroom although he/she might communicate with sign.
39. Following use of the bathroom **Student** returned to centres and was supported by

his/her EA to use a stamp to select the letter “E” on a worksheet. His/her EA was sitting beside **Student**, however, his/her teacher was leading this activity individually with **Student**. **Student’s** EA used a full physical prompt to support **Student** to find the “Es” and stamp them. I inquired as to the strategy to facilitate **Student’s** eventual independence in this task and his/her EA indicated that **Student** was not expected to independently find the “Es”. No strategy to remove prompts to facilitate independence was observed or reported by **Student’s** EA.

40. In conversation with **Student’s** classroom teacher, he/she reported that **Student** generally prefers to go to the music station or to a small house in the classroom, in which he/she might sit and rock or take a book. I asked **Student’s** teacher and EA what the goals are for **Student** during centres. They indicated that the general goals are socialization with classmates (and to choose them over his/her EA who he/she is reported to prefer to spend time with), to get along with others, to follow the classroom routine, some letter and number goals (these were not more clearly specified), patterning, some fine motor tasks, and for **Student** to realize what options are available to him/her. To this end, at one point **Student** requested using PECS to go to see the fish in the hallway and his/her EA encouraged **Student** to select a friend to go with him/her to see the fish. **Student** selected a picture of a friend from a choice board and gave this picture to his/her friend who then accompanied him/her to the fish tank. He/she was not required or supported to place the picture on his/her sentence strip as per his/her current phase of the PECS protocol. No further picture requests were observed during the visit to the fish tank, and no specific social skills goals or language targets (e.g., receptive identification, labelling) appeared to be targeted during this activity.
41. No data were observed to be collected during centres, and **Student’s** teacher reported that they do not collect formal data on these targets; rather, he/she reported that he/she assesses his/her progress by observing him/her through-out the day in a manner consistent with how he/she assesses other student’s performance. There were no written programs observed to be used and none reported to be in place to support the stated goals in centres. Although **Student’s** EA generally stayed in close proximity to **Student** during the observation, and he/she was provided with guidance through-out different activities, no specific ABA teaching strategies were observed to be used in a systematic fashion in order to support **Student’s** development and independence. In discussion with **Student’s** EA and teacher they noted that his/her goals are listed in his/her IEP and include riding his/her bike and practicing the stairs and using PECS approximately 15 times/day, which was reported to be reduced from 25 times per day, then 20 times per day, and now 15 times per day. It was reported that tally marks were sometimes collected on **Student’s** use of PECS (this was not observed during the

observation). When asked what happened to the tally marks his/her teacher reported that these were for their own use but were not graphed or reported to be analyzed in a systematic fashion. (It should be noted that tally marks or a simple count of whether an exchange occurred or did not occur do not allow for an analysis of **Student's** actual performance, i.e., his/her level of independence and/or whether he/she is requiring less support overtime, or where in the sequence he/she may be having difficulty).

42. Following centres **Student** transitioned to the carpet again. He/she was emotional during the transition (tearful) and this was reported to be common during transition times or when the class was louder or more boisterous. While sitting for circle **Student** again engaged in repetitive arm movements. While other children performed actions during circle, **Student** did not. He/she was not prompted to do so. His/her EA sat approximately 6-7 feet away from him/her at this time.
43. Following circle time/carpet time, **Student** transitioned with his/her class to wash his/her hands. He/she required some assistance in this routine which was provided by his/her EA, but he/she could perform some steps independently, such as drying his/her hands and throwing out his/her garbage. At times he/she was off-task and slower than his/her peers and it appeared as though he/she could have benefited from additional systematic prompting to follow the routine. Eventually his/her EA and teacher gave him/her individual instructions to complete steps in the routine (i.e., to get his/her lunch bag and bring it to the table to eat). At the table, **Student's** EA opened his/her back pack and helped him/her get his/her yogurt out. He/she fed him/her his/her yogurt and he/she did not have the opportunity to participate in practicing feeding himself/herself with a spoon. **Student** was also given some finger foods, such as pears, mini naan bread, which he/she was able to eat on his/her own. At one point he/she was given a fork to use, but no systematic prompts were used to facilitate his/her use of the fork.
44. At the end of the first nutrition break all of **Student's** peers packed up their lunches, went to the cubby area and prepared to go outside. **Student** remained seated with his/her EA during this time. While sitting and waiting **Student** rocked back and forth repetitively. Approximately 8 minutes after his/her peers left for recess **Student** went to the cubby area and received support to get dressed for outdoor recess. He/she required help with his/her zipper, which his/her second EA, **EA** provided. I inquired as to whether he/she ever used a "help" picture during this situation and it was reported that he/she had used that picture maybe twice. There was no reported strategy to create opportunities for him/her to ask for help and then use prompting and fading to help develop this skill. During this time **Student** did make two requests for bus videos using PECS, neither of these requests were honoured. Outside **Student** generally stayed on his/her own

walking at the edge of the playground with the EA, holding the fence and rocking. His/her EA was in close proximity. After several minutes he/she redirected him/her to another area and he/she continued walking along the fence, pausing at times to rock. No interaction with peers or engagement with the activities on the playground was observed. It was reported that he/she would at times play with the sand, but since it was cold he/she had not been interested in this. No data were collected during this time.

45. Upon completion of recess **Student** was guided back inside by his/her EA. His/her EA removed his/her gloves, instructed **Student** to remove his/her hat (which he/she did independently), but he/she then required prompts to put his/her hat down. His/her EA instructed him/her to remove his/her coat and told him/her to take his/her arm out (which he/she did independently). He/she was then instructed to take off his/her neck warmer (which he/she did independently using the strategy that he/she was taught in ABA which enabled him/her to reach mastery with this skill). His/her EA removed his/her boots for him/her and provided physical assistance to remove his/her snowpants. During this transition **Student** again became tearful.
46. **Student** then transitioned to the circle/carpet area and sat in his/her box chair. At this time the activity was calendar. **Student's** EA was seated approximately 15 feet away from **Student**. **Student** was not prompted to raise his/her hand or to participate in circle (i.e., respond to peer questions, place numbers on the calendar or words on the board).
47. Following calendar, the class was again allowed to choose from different centres/activities in the class. **Student** received an individual instruction from his/her teacher to select an activity. He/she selected music by gesturing toward the music picture. His/her teacher then turned the music on and **Student** stayed near the music rocking back and forth dancing. His/her EA approached him/her at this time and remained near him/her. **Student** placed his/her hand on a book that was in the vicinity and turned some pages. His/her EA did not interact with him/her at this time. After approximately 2 minutes **Student** walked over to his/her PECS binder, constructed a sentence independently ("I want giggle bellies"), and delivered this sentence to his/her EA. His/her EA supported him/her to tap the pictures and then informed him/her that giggle bellies wasn't available. **Student** then independently constructed a sentence "I want dad" but did not exchange this with either his/her teacher or his/her EA. Rather, he/she eventually went to another centre with several books and began flipping pages of the books on his/her own. His/her EA was several feet away at this time. No functional use of the book was supported. After several minutes **Student** was instructed "First work, then choice". Then **Student** was directed away from the book to another table to a table with paper and markers. **Student** gestured toward peers who were dabbing with bingo dabbers on paper; this was not followed, rather **Student** was guided to make

marks on paper with a marker with support from his/her EA.

48. In terms of PECS specifically, it was somewhat confusing to determine the school's approach to teaching. His/her teacher and EA reported that they knew **Student** was at Phase IV of PECS and that they believed **Student** knew certain pictures in his/her binder, but not all of them. They noted that they were trying to teach pictures of things at school, but did not have a formal teaching strategy. However, in a separate conversation they noted that they were not specifically teaching vocabulary or teaching additional skills with PECS at school, rather they were maintaining his/her system as taught in ABA. They supported **Student** to tap his/her pictures, which was consistent with his/her current phase of PECS, but there was no observable strategy being used to reduce this support to facilitate independence. It was noted that last year the SLP came in for half a day to explain how to manage the PECS system and although his/her teacher reported that the SLP had been in to observe **Student** one or two times this year he/she reported that there was not any consultation with the SLP as per the PECS protocol. Rather there was some indication that they were going to work on a visual schedule (this was not observed). *(It should be noted that PECS and visual schedules are entirely different teaching strategies used for entirely different communicative functions).*

49. In terms of additional support, it was reported that his/her SERT, **SERT Name**, sees him/her every time **Student** is at school. He/she observes outside and may come in and help him/her ride his/her bike or practice the stairs as per his/her IEP. Further, **Principal** (Principal) reported that an ABA facilitator is also involved, and this person performs a consultative role, making recommendations. Although the principal and teacher were uncertain how often this individual had been in they believed it was minimum twice this semester. It is my understanding that this individual is a BCBA. However, in a review of the documentation related to his/her involvement with **Student** several of the basic defining characteristics of ABA appear to be missing from his/her involvement to-date (see paragraph 50). Finally, an Instructional Program Leader was also reported to be involved, but it was noted by **Principal** that this person was generally more involved in selecting and dealing with goals related to occupational therapy and physiotherapy.

50. Having observed **Student** in both locations it is evident that he/her is not receiving effective ABA at school. The defining characteristics of ABA are not present. Specifically, there was no evidence of the following:

a) Selection of observable, measurable, socially significant, developmentally appropriate targets within all activities. Although several appropriate goals have been included in **Student's** IEP, such as the use of PECS, there appear to be large chunks of his/her day during which there are relatively few learning targets

systematically addressed. For example, during centres numerous goals could have been included for **Student**, such as completion of a specified number of fine motor tasks, an increase in on-task behaviour, an increase in the number of social interactions/requests made to peers, increased accuracy in selecting letters/numbers, identification of objects within books, labelling pictures of objects in books. Similar goals could be developed for all group activities such as circle, calendar, etc. A number of these targets are currently being addressed in **Student's** ABA programming and could appropriately be generalized from his/her ABA program, and more ideally, new targets introduced using ABA directly within his/her daily classroom activities. The limited number of socially significant goals, defined in an observable and measurable manner, across **Student's entire** academic day does not meet the defining ABA characteristics "applied" and "behavioural".

b) Systematic use of ABA teaching strategies to most effectively and efficiently teach new skills and facilitate independence in identified educational activities. These strategies should be written down and consistently implemented, and use of prompts and supports should be tracked so that these can be systematically removed to facilitate independence. Further, these strategies should be used across teaching opportunities, settings, and situations. For example, in ABA two commonly used methods of assessing preference were implemented at the beginning of teaching (e.g., multiple stimulus without replacement and forced choice). The items/activities **Student** selected were then delivered to him/her on a systematic schedule contingent upon his/her correct performance of target tasks or upon his/her request using PECS. In school, there did not appear to be a formal strategy to assess preference and to use the selected items/activities in a systematic manner to reinforce **Student**. Although some of the structures were in place, such as a choice board and offering choices, effective implementation of reinforcement was not observed (i.e., following task completion **Student** was often denied requested reinforcers, the reinforcer available for work was often unclear, **Student's** preferences were not meaningfully assessed or honoured). Further, when it was identified that one of **Student's** reinforcers was not available as the computer was broken no clear attempts were made to identify another available item/activity that could be used as a reinforcer in conjunction with his/her "first, then" board or his/her "free choice" time. Additionally, in ABA **Student** was learning, albeit slowly, through the use of carefully designed instructional strategies, implemented in a systematic fashion according to a pre-specified plan (e.g., written programs incorporating evidence-based ABA teaching strategies). At school, **Student's** teacher and EA were clearly committed to supporting **Student** and attempts were made to help him/her

participate in all the classroom activities. Further, his/her teacher and EA were incorporating strategies such as visual supports, prompts, and PECS. However, simply putting these supports in his/her day, without proper implementation, procedural integrity, and systematic monitoring (described below) does not equate to ABA or effective, evidence-based intervention. The implementation of ABA teaching strategies in a structured, systematic fashion, across all activities and materials are several of the defining characteristics of ABA, i.e., “technological”, “conceptually systematic”, and “generality”, without this the approach cannot be qualified as ABA.

c) Appropriately sensitive, accurate and reliable data collection that is graphed to allow for analysis and determination of the relationship between the teaching strategy and the skill gains. In **Student’s** ABA program appropriately, sensitive data were observed to be collected, in a manner that appears to be accurate and reliable. These data were also collected continuously during the observation period. In contrast, at school no data were observed to be collected. Further, those that were reported to be collected (i.e., tally marks) lack the required sensitivity in order to be used to effectively monitor progress and make educational decisions. Further, there were no indications from the classroom staff that the data were visually displayed and regularly reviewed to inform education planning. This is inconsistent with the defining characteristic “analytic”.

d) Use of data to guide decision-making, including revising teaching strategies when educational goals are not obtained. For example, in **Student’s** ABA program data were collected, graphed and reported to be monitored on a regular basis (e.g., weekly). Further, there was evidence in his/her program binder, and as reported by his/her Senior Therapist and ABA therapist, that these data were used to revise instructional strategies in order to facilitate learning. For example, **Student** was noted to be making slow progress in two programs – labelling and putting on his/her neckwarmer. Upon observation of these delays, **Student’s** Senior Therapist added additional steps within each program (i.e., an additional prompt to attend to the material while labelling, and an additional step to pull his/her neckwarmer open while dressing). In contrast, at school **Student** was not reported to be meeting the selected goals in PECS (e.g., 25 requests per day). However, there were no reported changes in the strategy used to teach this skill. Rather, it appeared that the goals were just being reduced (e.g., 20 requests per day, 15 requests per day). This is inconsistent with the defining ABA characteristic “effective”.

51. Having observed **Student** in both locations, and reviewed his/her provincial report cards (**Date, Date**) and his/her IEPs (**Date, Date**), my opinion is that **Student** is not realizing his/her full potential in the classroom setting as he/she is not able to access his/her

education in school. The supports in place in the classroom are not evidence-based for children with ASD, but more importantly, they are not sufficient to meet his/her needs. **Student's** IEPs indicates a reduction in expectations related to important goals such as the use of PECS (i.e., decreasing from a goal of 25 requests per day to 20 and from 3 requests per day for the toilet to 2 requests per day). Further, other goals continue to be included in his/her current IEP which were included in his/her prior IEP (i.e., requesting actions with PECS). Presumably this is because he/she did not meet the identified goals from the prior semester. Most concerning is that despite this lack of progress, which is not evident in **Student's** ABA program, no notable revisions in teaching strategies related to these goals were identified in his/her IEP or reported by his/her classroom teacher. As I outlined above, **Student** requires ABA in order to access the curriculum. He/she is not currently receiving ABA programming in school and this is impeding his/her learning ability. It is obvious that **Student's** EA and teacher are committed to his/her development. Further, his/her classroom appears to be a very appropriate setting for **Student** at this time and he/she receives one to one EA support. Given all of these factors there appears to be no reason why ABA programming, with the appropriately qualified personnel, training and monitoring/supervision, could not be integrated into the classroom setting.

52. Through my work, I am aware of instances where evidence-based ABA programming is provided in the classroom setting with great success.

ABA and Schools

53. ABA is a form of specialized education or intervention which can be provided in a variety of formats and settings. Some children receive intensive forms of ABA in home or clinic environments. Some children receive ABA in the community or in the school environment. ABA may be provided by public or private providers. ABA may be provided across multiple environments. However, the setting, or settings, in which ABA is provided, should be selected based on each child's individual profile of strengths and needs, as well as the child's current and future needs (BACB, 2014, *Applied Behavior Analysis Treatment of Autism Spectrum Disorder: Practice Guidelines for Healthcare Funders and Managers*). Many school-age children require ABA services in order to meaningfully access their education. For these children, ABA should be provided in the regular classroom. This has been done in the past and could and should be done in **Student's** case.
54. I have participated in the provision of ABA services in both private and public schools, in general and segregated (i.e., section 23) settings, funded both privately and publicly (i.e., Ministry of Children, Community and Social Services, Ministry of Education), in

schools in Ottawa, Toronto, Hamilton-Niagara, Halton, Peel, Thunder Bay, and Grand Erie/Brant Haldimond Norfolk. I have supported children in the transition from early intensive behavioural intervention (an intensive form of ABA) into the school setting. For some of these children, we provide a brief period of transitional support, if they are able to successfully meet the curriculum requirements with limited support, followed by a gradual reduction in ABA intervention hours/support. For other children, we have provided ongoing support in the classroom environment in order to ensure the student's continued success at school. For these children, ABA is not used to help ensure a successful "transition" to the classroom. Rather, ABA is used to ensure that the child is able to participate in the regular classroom routine and activities, alongside his/her peers, on an ongoing basis. Appropriate instructional strategies, i.e., ABA, are integrated into the child's educational programming in order to maximize their ongoing classroom engagement and success.

55. In both situations, a collaborative process has been used to determine the roles of each involved professional. The teacher and related school/classroom personnel work together with the *ABA team and family in order to identify relevant goals for the child, including academic goals, the foundational skills or prerequisite skills necessary to achieve those goals, and more general skills relevant to success in the school and classroom environment. The child's current performance against these goals is directly assessed and relevant targets selected for the academic semester/year. Once teaching targets and goals have been identified, appropriate ABA strategies to teach these skills, as well as data collection strategies to monitor progress toward these goals, are selected and formal programs written by the ABA team, with input from school/classroom personnel. A collaborative process is then used to determine how best to implement the intervention and collect and monitor data in the regular classroom setting. Generally, the teacher remains focused on teaching the students in the classroom, while support personnel from the school/classroom (e.g., EAs) and ABA team focus on implementing the ABA interventions which allow the individual student to access the curriculum. For example, in a kindergarten classroom in which centres are used to allow children to select amongst different activities and to work either independently or collaboratively with others, several activities which include the child's target skills or goals would be available. Within each of these activities/centres a specific, observable, measurable goal would be established, ABA teaching strategies selected for use, and data collection strategies implemented. Initially, ABA team members may take the lead in implementing the teaching strategies, essentially modeling the approach for associated school personnel. Then school/classroom personnel gradually begin implementing the intervention and taking data, with feedback and support from the ABA team. Once the

school/classroom personnel develop competency in the ABA teaching strategies and accuracy in data collection, the ABA team may play more of a consultative role, touching base to review the data, monitor progress, revise teaching strategies, select new teaching targets, and provide general guidance and support. As the child progresses, and new curriculum targets and activities are introduced in the classroom, the teacher, school/classroom personnel, and ABA team continue to meet to review the data and make data-based decisions regarding next steps. Depending on the student's profile of strengths and weaknesses, identified goals, and the experience of involved educational and behavioural personnel with ABA teaching strategies and data collection, different approaches may be effective. In some situations, the teacher may take the lead in preparing modified educational activities that include target teaching goals, while the EA or ABA team implement the ABA teaching strategies related to this goal. In other situations, the teacher has been involved in both the activity and goal selection (e.g., curriculum design), and the use of individualized, ABA strategies for that program, while the ABA team reviews the data and discusses program progress with the teacher and school personnel. In all situations, in order to ensure consistency, all involved personnel are aware of the identified teaching targets and ABA instructional strategies, and the data collection requirements and regular communication and data review occurs in order to ensure continued progress on selected goals. In my experience, this collaborative relationship has been very well regarded and positively received by school personnel, including classroom teachers and EAs, many of whom have reported feeling underprepared to meet the needs of some children with ASD in the regular classroom environment. (**Please note: the use of the term "ABA team" refers to professionals with appropriate training, education and credentials to be appropriately qualified to design and deliver ABA programming. This could be either an external third party or internal school board employees*).

56. ABA programs address skill deficits that are impairing a child's success in their current environment and/or are anticipated to impair success in future environments. Targets in an ABA program may be derived from curriculum assessments, such as the ABLLS-R, as well as from direct assessment of the child's ability to meet the demands of the environment (i.e., the school). As such, ABA programming can, and *should*, be used to address relevant skill deficits or behavioural excesses regardless of the method used to derive the goal (i.e., whether through direct observation of the skills described in the ABLLS-R or those necessary for engagement in independence in the classroom). Further, numerous goals from the ABLLS-R (as well as other similar curriculum assessments commonly used in ABA programs) are reflected in the Ontario Kindergarten curriculum and vice-versa (as explained above in paragraph 25 above, see

also 2010, *Linking the ABLLS-R to the Ontario Kindergarten Curriculum*). The pre-learning or foundational skills essential for learning and development are found in both; and ABA teaching strategies may be used to teach foundational skills regardless of how they were derived.

57. Kindergarten is a time when key skills are developed that are necessary for future educational success. For example, demonstrating self-reliance and responsibility (e.g., knowing how and when to seek assistance and materials, ABLLS-R F9 and F12), taking turns in activities (ABLLS-R M11 and N5), listening and following others and following one- and two-step instructions (e.g., ABLLS-R C27-C30), among many others. These foundational skills are commonly taught in the classroom environment (as described in the Ontario kindergarten curriculum) and within ABA programming; both teaching environments address the development of key life skills which are most effectively obtained in early childhood. In fact, some evidence from early childhood education and the ABA literature indicate that access to effective teaching within a narrow window of development (e.g., between 2 to 6 years of age) results in better outcomes (Flanagan et al., 2012, **Tab 4**; Perry et al., 2011, **Tab 5**). There are significant negative implications arising for children who do not gain foundational skills during this window. For example, a child in kindergarten may be six months behind his/her peers in terms of group skills and classroom skills. He/she may have difficulty sitting still and/or attending to his/her teacher and classmates in a group, or following instructions delivered in a group format. He/she may have additional difficulty independently following the classroom routine, transitioning to new activities, and completing activities on his/her own. Although these may appear to be relatively minor concerns, the cumulative effect of these deficits can have devastating long-term impact. Without effective intervention, deficits of this nature begin to compound year after year. For example, this child may sit appropriately in the group, but not attend to or understand the lesson, and therefore not learn new skills. If these skills are required for the next lesson, activity, or grade, he/she will be even less prepared to meet the demands of future learning opportunities. Further, he/she may always be behind in transitions, resulting in missed learning opportunities, and less time to complete independent work. Again, these subtle challenges not only impact the child's current academic performance - as he/she is unlikely to meet current academic expectations - but have significant negative implications for his/her success in future learning situations as he/she has not developed required foundational skills. Compounding the negative impact of ineffective teaching strategies and lost learning opportunities is the fact that this child's peers not only gain *more skills every day/semester*, they acquire *more skills across many areas (e.g., play skills, early academics, group and social skills)*, and they *acquire these skills more rapidly*. This

exponential growth leaves the child with ASD further behind, year after year. If the child has deficits in a number of areas, deficits may be compounded across all of these areas. **Student** is already on the outer range of the “window of opportunity” where it is best for him/her to acquire the foundational skills that are required for him/her to advance through school and reach his/her full potential. ABA teaching strategies are the most effective for children with ASD generally, and for **Student** specifically. ABA is how **Student** learns. He/she requires ABA programming to be delivered in school if he/she is going to develop these skills. At the present time, he/she requires ABA to be delivered for many hours, across many settings and activities, within his/her natural environment. In other words, he/she requires comprehensive ABA programming. It is my professional opinion that he/she will not learn, or access the classroom curriculum, without it.

58. ABA is a “well-developed scientific discipline among the helping professions that focuses on the analysis, design, implementation, and evaluation of social and other environmental modifications to produce meaningful changes in human behavior” (BACB, 2014, *Applied Behavior Analysis Treatment of Autism Spectrum Disorder: Practice Guidelines for Healthcare Funders and Managers*). Hallmarks of ABA include direct observation and measurement, identification of the functional relationships between environmental events and behaviour, and the use of changes in these events in order to produce meaningful changes in human behaviour. The defining features of ABA are that it is applied, behavioural, analytic, technological, conceptually systematic, effective and generalized (Association of Professional Behavior Analysts [APBA], 2017, *Identifying Applied Behavior Analysis Interventions*; Baer, Wolf & Risley, 1968, **Tab 6**; Cooper, Heron, & Heward, 2007, **Tab 7**). Persons must be qualified (i.e., have appropriate education and supervised training) and properly *supervised in order to abide by these essential features of ABA. (**Please note: the use of the term “supervised” does not indicate a formal reporting structure. Rather, the term supervision in ABA generally refers to access to an expert level behaviour analyst (e.g., BCBA, BCBA-D) who regularly monitors the progress of the child in ABA programming, provides direction – in a collaborative fashion – to all team members, and ensures appropriate procedural integrity and data accuracy and reliability. This does not supplant the supervisory role of relevant school board personnel, such as the principal.*)
59. I am not aware of any scientific research which systematically evaluates the use of “ABA Methods”. Further, I am not familiar with the exact definition of “ABA-based methods” or “ABA methods”, as this term does not exist in relevant behaviour analytic texts or in any systematic reviews of interventions for ASD (i.e., National Autism Centre [NAC], 2015, *National Autism Centre Findings and Conclusions: National Standards Project, Phase 2*).

Addressing the Need for Evidence-Based Practice Guidelines for Autism Spectrum Disorder; and *Evidence-Based Practice and Autism in the Schools: an educator's guide to providing appropriate interventions to students with autism spectrum disorder, 2nd Edition*, National Autism Center, National Professional Development Centre [NPDC], 2014, *Evidence-based practices for children, youth, and young adults with Autism Spectrum Disorder*, ONTABA, 2017, *Evidence-Based Practices for Individuals with ASD - Recommendations for Caregivers, Practitioners, and Policy Makers (Report)*). ABA interventions must include all of the above-mentioned characteristics and interventions that do not have all of those features should not be characterized as ABA (APBA, 2017, *Identifying Applied Behavior Analysis Interventions*).

60. While I am not aware of any research defining or demonstrating the value of “ABA Methods”, I am aware of research which demonstrates that interventions which do not contain the features listed above can be ineffective (e.g., Howard, J. S., Sparkman, C. R., Cohen, H. G, Green, G., & Sanislaw, H.A., *Comparison of intensive behavior analytic and eclectic treatments for young children with autism. Research in Developmental Disabilities, 26, 359-383*) and potentially harmful (e.g., facilitated communication, Schlosser et al., 2014, **Tab 8**). Harm may come in many different forms. For example, certain strategies that are perceived to be “behavioural” in nature may be applied in a “cookie cutter” fashion regardless of the appropriateness of the strategy for the individual child based on his/her learning profile and identified learning objectives (e.g., children with ASD are often given a visual schedule without any assessment of whether the child understands the pictures, whether the pictures achieve the intended consequence(s), or whether the visual schedule is recommended practice for the learning objective). Using strategies in this cookie cutter approach, without any of the defining characteristics of ABA, may result in the delay in the use of more evidence- based, effective strategies, and lost learning time for the child.
61. Further, many “pseudo-ABA programs” neglect to collect and analyze meaningful data (a defining characteristic of ABA). Without data collection and monitoring, children may work on the same goals for several months without success. Alternatively, children may continue to work on the same goals, despite skill mastery. Both of these situations cause harm in that they expose children to ineffective teaching strategies for long periods of time and neglect to identify when program revisions/teaching modifications are required, or when new learning objectives should be identified. Both result in lost learning opportunities during potentially developmentally sensitive periods of time.
62. I am not aware of any research that supports a dichotomous understanding of “educational ABA” vs “therapeutic ABA”. ABA is defined by the criteria mentioned above in paragraph 58. If an intervention does not have those features, it is not ABA. If an

intervention has those features, it can be referred to as ABA programming, ABA therapy, ABA intervention, etc. Ultimately, it is the presence of the defining characteristics of ABA which determines whether a child is receiving ABA; not the setting in which it is provided. Identical ABA teaching strategies may be used in a group setting, such as camp or a classroom, or in a one-to-one clinical setting. Likewise, ABA provided for many hours per week for several years, perhaps in a clinical setting (often referred to as “intensive” ABA), is no different from ABA programming provided for fewer hours per week, in more general settings. Again, it is the presence of the defining characteristics of ABA which determines whether a child is receiving ABA; not the intensity with which it is provided. Finally, ABA may be used to teach academic skills, play and social skills, motor or sport skills, life skills, and to increase skills or to reduce problem behaviour. Again, it is the presence of the defining characteristics of ABA which determines whether a child is receiving ABA; not the nature of the skill being taught or learning objective. If the intervention contains the features described above, it is ABA.

63. In order to ensure that ABA is provided in a manner that abides by the features listed above or with what is commonly referred to as “sufficient procedural integrity” it must be designed, delivered, and *supervised by individuals with appropriate education, training and qualifications. Specifically, ABA programming should be designed and *supervised by a Board Certified Behaviour Analyst and implemented by someone with appropriate training and supervision. (Refer to BACB, 2014, *Applied Behavior Analysis Treatment of Autism Spectrum Disorder: Practice Guidelines for Healthcare Funders and Managers*), for more detailed descriptions of required qualifications for ABA programming for children with ASD; see clarification of term “supervision” in paragraph 58 above).
64. ABA approaches can, and in **Student’s** case should, be used in collaboration and concurrently with the educational programming provided by the teacher. ABA programming is educational programming. This is how many students with ASD learn (National Autism Centre, 2015, *National Autism Centre Findings and Conclusions: National Standards Project, Phase 2. Addressing the Need for Evidence-Based Practice Guidelines for Autism Spectrum Disorder*, and *Evidence-Based Practice and Autism in the Schools: an educator’s guide to providing appropriate interventions to students with autism spectrum disorder, 2nd Edition, National Autism Center*; ONTABA, 2017, *Evidence-Based Practices for Individuals with ASD - Recommendations for Caregivers, Practitioners, and Policy Makers (Report)*). This is how **Student** learns. Many students require additional supports or accommodations in order to succeed academically. Some children require assistive technology, such as text to speech software or classroom amplification, in order to enhance their engagement and independence in the classroom. Other children may require preferential seating, additional time on tests, or the ability to

provide responses in different formats. Some students receive support from Occupational Therapists to ensure appropriate seating arrangements or supports for fine motor activities, such as writing, are in place. These supports do not replace the role of the classroom teacher or the regular education environment. Rather, these supports make it possible for students to maximize their learning potential when in the classroom environment. The same is true for ABA approaches; evidence-based ABA approaches should be used to facilitate students like **Student's** classroom engagement and independence as these approaches allow him/her to access the curriculum being delivered and optimize his/her learning. For example, while observing **Student** in the classroom he/she was encouraged by his/her teacher to choose an activity station by selecting from a number of different pictures of available activities. However, it was unclear whether he/she reliably went to the station he/she chose, and it was even less clear what the objective was for **Student** at each station. He/she received guidance from his/her EA and teacher, but there was no systematic approach to assessing: a) whether his/her picture choices corresponded to his/her activity choices, b) whether he/she could independently complete the activity, and c) whether he/she was making the anticipated educational gains within the activity. ABA strategies could easily be integrated into this part of **Student's** school day (which took up quite a bit of his/her morning based on my observation) by: a) taking baseline data on **Student's** accuracy of picture choice-making/following and his/her performance on each available activity, b) using these data to establish goals for picture choice-making/following and learning objectives within each activity station, c) selecting ABA teaching strategies to use in order to systematically teach **Student** to more proficiently and independently complete the activity (e.g., task analysis, chaining, prompting, prompt fading), d) implementing data collection to monitor **Student's** performance and progress toward selected goals, and e) making data-based decisions regarding when to move **Student** to the next step, when to make program revisions/teaching adaptations, and when to establish new goals. Without the use of ABA strategies such as this, I observed that **Student** was simply being manoeuvred through the daily educational routine, but was not meaningfully or effectively accessing his/her education.

65. Currently **Student** receives ABA programming at daycare where his/her peers are much younger than he/she is. In this setting, activities are geared to a much younger age range of children, focusing on free play in a relatively unstructured setting. This setting limits opportunities for the structured, systematic teaching **Student** requires in order to learn most effectively. As a result, much of **Student's** time was observed and reported by his/her Senior Therapist, to be spent in a one-to-one setting, with limited teaching opportunities in the more natural, inclusive environment. **Student**, like other children with

ASD, requires sufficient practice opportunities in order to learn. His/her kindergarten classroom appears to provide a more structured setting, with appropriate activities and routines, with age appropriate peer models, Further, many children with ASD struggle with the ability to generalize their learning from one setting to another. For this reason, it is important to create learning opportunities in the setting in which the learned skills should be applied (i.e., if the goal is to teach skills for use in the school setting, the skills should ideally be taught in the school setting). For example, if **Student** is learning to follow class room rules and routines, such as removing and hanging up his/her coat, getting his/her lunch, retrieving materials to complete a task, among others, these skills would most appropriately be taught using ABA strategies within the least restrictive, most appropriate setting (i.e., **Student's** home school/classroom).

Student's Need for ABA Programming in School

66. My review of **Student's** case indicates that he/she has significant skill deficits across all areas of development. For this reason, it is anticipated that he/she will require repetition and consistency in order to learn effectively. Further, given his/her developmental delays I anticipate that **Student** will not independently generalize his/her skills across environments despite his/her participating in ABA programming at **Service Provider 2** and his/her daycare centre. Without ABA programming in school, I do not believe that **Student** will independently develop and apply the skills and foundational elements of learning and development required to meet the Grade 1 curriculum. I understand that **Student** has been held back a year to repeat senior kindergarten, this indicates that **Student** requires support beyond what is currently being offered in order to learn new skills and to generalize learned skills across environments. **Student** will need to be taught to use target skills within the setting in which these skills are required. In other words, **Student** requires ABA programming to be delivered in the classroom setting.
67. For example, if **Student** is learning to line up for recess, he/she should learn this skill within his/her classroom setting. If he/she is learning to participate in group activities, he/she should learn this within his/her classroom setting with his/her classmates. For this reason, **Student's** ABA programming would be most effectively provided in the school setting, where he/she can receive support and instruction, in the least restrictive, most age appropriate environment. **Student's** learning may be negatively impacted by multiple transitions between environments, inconsistent use of instructional strategies across environments, variations in setting resources and stimuli, and limitations in the ability to work on similar skills across settings. Effective educational opportunities should take into account children's *current and future* needs. I believe **Student's** needs, both current and more importantly future, would best be met by the provision of ABA in the

classroom setting.

68. In order for **Student** to meaningfully access his/her education he/she requires *high quality, comprehensive ABA, provided by appropriately trained and supervised staff*. As well, **Student's** progress should be *monitored regularly through continuous data collection and analysis*, under the *supervision of an appropriately qualified behaviour analyst*. Unqualified personnel, using "ABA methods" that do not meet the standards of ABA interventions will not effectively meet **Student's** needs.
69. Based on **Student's** profile of strengths and needs it is evident that he/she requires support across numerous developmental domains. As such, I believe the following recommendations are appropriate.
- a. **Comprehensive ABA programming:** **Student's** needs would be best met by providing a comprehensive ABA program (BACB, 2014, *Applied Behavior Analysis Treatment of Autism Spectrum Disorder: Practice Guidelines for Healthcare Funders and Managers*). These programs are generally recommended for between 30- 40 hours/week. Not all of these hours must be provided in the same setting and the exact number of hours should be determined by the number and nature of **Student's** educational goals, as determined through appropriate direct educational and curricular assessments (see below), conducted by appropriately qualified individuals (see below). The majority of **Student's** hours spent in the academic setting should include ABA accommodations/approaches. If additional ABA program hours are required in order to meet his/her goals, these could be provided in other settings such as his/her home after school.
 - b. **Use of developmentally appropriate assessments/curriculum and integration of educational and ABA goals.** Given **Student's** developmental level other curriculum assessments may be appropriate (e.g., Assessment of Basic Language and Learning-Revised [ABLLS-R], Assessment of Functional Living Skills [AFLS], etc.), in addition to the regular classroom curriculum and assessment approaches. The results of **Student's** most recent ABLLS-R assessment conducted by his/her therapy team at **Service Provider 2**, reveals significant areas of deficit across almost all developmental domains. Many of these developmental domains overlap with the regular classroom curriculum (as described in paragraphs 25 above). However, the level at which **Student's** peers may be participating in the curriculum may not be appropriate for **Student**. As such, **Student's** educational programming expectations should take into account the results of more developmentally appropriate assessments such as the ABLLS-R, and his/her ABA goals and educational goals should be aligned so

they may be concurrently and simultaneously addressed in the classroom. This should be done through the IEP process. In this manner, **Student's** ABA goals would be integrated into existing classroom activities and routines.

- c. **Evidence-based instructional strategies:** In order to enhance **Student's** progress toward these goals, evidence-based ABA instructional strategies should be implemented to support his/her learning in the classroom (e.g., reinforcement, prompting and fading, functional communication training, incidental teaching, functional assessment, generalization and maintenance procedures, among others).
 - d. **Progress monitoring:** In order to maximize and maintain **Student's** progress toward these goals direct observational data should be collected. These data should be regularly analyzed by a Board Certified Behaviour Analyst (BCBA). Revisions to **Student's** educational goals and instructional approaches should be based on a review of **Student's** progress toward these goals, as evidenced by the data. In order for this data to be reliable, and therefore meet the features of an evidence-based ABA program, training and ongoing monitoring is required for the person(s) collecting the data.
 - e. **Appropriately qualified and supervised staff:** ABA is a well-developed scientific discipline, with formal training procedures similar to other graduate level disciplines (e.g., speech language pathologists, psychologists). Board Certified Behaviour Analysts (BCBAs) undergo a rigorous course of training and education (e.g., Master's level graduate training), followed by a period of clinical training, during which they work under the supervision of an experienced Behaviour Analyst. BCBA's must meet specific degree, coursework, and supervised experience requirements, as well as pass a psychometrically validated exam. Given the specialized nature of ABA interventions, children receiving ABA should be monitored by an appropriately qualified BCBA. In the education environment, the BCBA should consult regularly with the classroom teacher in order to establish shared goals, create an integrated education/ABA program, and monitor progress. (Visit www.bacb.com for more information on BCBA certification).
70. I have reviewed **Student's** IEPs as well as the files provided by the Board regarding the SLP and OT services he/she receives at school. While there are useful services and equipment being offered through those services, they are not sufficient to meet his/her needs. These services are not a substitute for ABA programming. The lowering of his/her IEP goals for the 2018-2019 school year is indicative of the insufficient level of support **Student** has received to date. It remains my opinion that the services provided

to **Student** to date are insufficient to meet his/her needs and enable him/her to access the education purported to be provided to him/her. Evidence-based ABA programming can fill the gap.

Ongoing Harm to **Student**

71. As outlined above, given **Student's** dual GDD and ASD diagnoses, he/she has significant, pervasive developmental delays across all skill areas. For this reason, he/she requires ABA programming in order to meaningfully access his/her education.
72. ABA programs routinely target a broad range of the foundational pre-learning skills found in the kindergarten curriculum (see paragraph 25 above). Failure to provide ABA programming in school is likely to cause significant harm as time spent using ineffective instructional strategies is likely to result in slow, or no, educational progress. Given that **Student** is at the outer range of the most effective "window of opportunity" he/she requires evidence-based ABA programming now in order to help him/her reach his/her developmental and educational potential. Based on my observation, the strategies currently in place for **Student** in the classroom are ineffective.
73. The cumulative effect of limited yearly academic progress can have a devastating long-term impact as **Student's** deficits are likely to compound year after year, resulting in more significant delays overtime. For example, in SK a child with ASD may be 6 months behind his/her classmates in his/her social development. During SK, this child continues to develop social skills – at his/her own slow pace. In contrast, his/her peers not only gain *more skills*, they acquire *more skills across many areas (e.g., play skills, reciprocal interaction skills, theory of mind, empathy)*, and they *acquire these skills more rapidly*. This exponential growth leaves the child with ASD further behind, year after year. If the child has deficits in a number of areas, deficits may be compounded across all of these areas. Given **Student's** significant developmental delays the longer he/she is without effective ABA intervention in the classroom setting, the more significant the harm that results overtime.
74. It is my understanding that **Student** has been held back a year in school. In reviewing his/her Term 1 and Term 2 IEP's I have also noted that **Student** was not reported to meet goals such as requesting 25 times per day using the Picture Exchange Communication System (PECS). PECS is considered evidence-based practice for teaching communication to children with ASD (National Professional Development Centre, 2014, *Evidence-based practices for children, youth, and young adults with Autism Spectrum Disorder*). As such, **Student's** limited progress is particularly concerning. **Student's** failure to progress academically, and meet selected learning expectations, suggests that the current approaches are not sufficiently meeting his/her

educational requirements. I note that **Student**, with the use of systematic ABA teaching strategies and careful progress monitoring and review, has a demonstrated pattern of mastering his/her ABA program goals at his/her daycare. This inability to meet his/her IEP goals in school demonstrates the insufficient supports provided to date. For example, **Student** has mastered building sentences using PECS within his/her ABA program and there is a written, systematic ABA program in place to expand his/her vocabulary and develop more sophisticated language skills. However, it was reported by school staff that they maintain **Student's** communication system as developed in his/her ABA program, but they do not have a systematic plan to meaningfully expand his/her school vocabulary and language use. During the observation, **Student** was observed to request numerous different items and activities within the classroom setting. However, these requests were rarely honoured. It was explained that these items are generally not available in the classroom. However, there was no documented or reported plan in place to: a) identify activities or items that **Student could** request within the classroom, b) systematically teach **Student** to use these activities/items or to develop these as preferred activities/reinforcers, and c) to teach **Student** to request these activities using PECS.

75. **Student** has inadequate access to the curriculum and this inadequate access is harmful. As noted above, each year **Student** receives suboptimal education he/she will fall further behind. As these deficits compound it is likely that fewer and fewer academic goals will be targeted each year (and those that are targeted will be significantly different than his/her same age peers). Further, if **Student's** progress continues to be limited in the regular classroom, it is likely that more restrictive educational environments will be recommended, resulting in limited access to same age peers and typical classroom activities. This possibility highlights the need to ensure **Student** has access to evidence-based, effective ABA, in the least-restrictive, most appropriate setting (i.e., the classroom) as soon as possible to prevent further harm.
76. It is my opinion that **Student** cannot wait for access to ABA in school; this must be provided now. This is also consistent with the research regarding early intervention for children with ASD. The most appropriate window for **Student** to receive this programming is now. [**comment about training of staff to deliver necessary services**], in my opinion, it would be appropriate to engage properly qualified external ABA providers to work with **Student** in the classroom until such time as the Board is able to meet **Student's** needs through the provision of evidence-based ABA in the classroom.

Conclusion

77. As explained above, **Student** requires ABA programming in the classroom setting. His/her needs are not currently being met and it is my opinion that they will not be met without the provision of ABA programming in the classroom.
78. My experience is that ABA programming can and is being provided in regular classroom settings at various levels of intensity to meet the educational needs of students with ASD. These students experience success as a result.
79. **[Comment about the impact of staff having or not having the appropriate qualifications]**. As noted previously, ABA is a well-developed scientific discipline, procedural integrity is essential for optimal outcomes. For this reason, it is essential that appropriately qualified staff work collaboratively with education personnel. This involves the delivery of ABA programming by well-trained, well-supervised staff, direct observation of the child and the staff in the classroom, collaborative goal setting and program writing, onsite coaching and monitoring in the use of ABA strategies and data collection, and ongoing data analysis and review to guide educational decision-making. **[Comment re staff qualifications in particular circumstances of case]** staff, who receive limited guidance, and intermittent consultative meetings which lack direct observation or meaningful data analysis, is not a replacement for evidence-based ABA.
80. In my opinion, **Student** will be significantly harmed if ABA programming is not provided in the classroom as the current strategies being used by the Board are ineffective and do not allow him/her to meaningfully access his/her education. The harm **Student** experiences will compound yearly until he/she receives an adequate accommodation.