

# THE PICKLE

**CIVIC  
INNOVATION  
JAM  
FOR KIDS!**



Friday, November 9th

Metro Van kids aged 8-13

## EXECUTIVE SUMMARY

The Pickle is the first of its kind, targeted to non-typical learners who are out-of-the-box-thinkers! The Pickle's chief objective is to expose neurodiverse children to social entrepreneurship education, providing them with the opportunity to work in cognitively diverse teams with the goal to work through a real-world problem, connected to community and changemaking.

Social entrepreneurship (SE) education is a salient fit for students with learning differences, particularly those with learning dis/abilities. SE is not only a pathway to creative autonomy, it also promotes change-making capacity in a world that is in dire need for new solutions to complex environmental and social issues. Building off primary and second research in this arena, suggesting that there is a link between people with learning dis/abilities and proclivity in SE. The Pickle will be a pilot project, a dip into SE—a day-long event, utilizing a hack-a-thon style format, for children aged eight to



thirteen years of age, whose classroom teachers have recognized them as neurodiverse learners, and referred them to The Pickle programming. (See full description of some of key traits of neurodiverse learners, in the section titled *Primary Research*, found on page 13.)

Barbara Pavey, an academic and author of four books on the themes of learning disabilities, more prominently dyslexia and entrepreneurship asks the question: “Is there any opportunity for young people with learning difficulties and/or disabilities to become entrepreneurs in a more robust, economic sense? What, then, is available to

young people with disabilities and particularly with learning difficulties, who may, if they gain the opportunity, develop an entrepreneurial disposition?” This question has not been answered in a Canadian context. Taking a full swath of entrepreneurial programming available to youth across the OECD countries, including Canada, the OECD state that: “only few young people learn at an early age about entrepreneurship” and students with “learning difficulties in particular are probably not so likely to be learning aspects associated with the modern view of entrepreneurship, such as business, management and leadership skills, and dealing with the risk of failure” (Pavey, 2006, p.216). The Pickle aims to work towards changing this narrative, by demonstrating what

is possible when a group of thirty neurodiverse students come together to work on a civic problem topical to them.

The Pickle is a topical opportunity to present students with ideas, and opportunity to engage in social entrepreneurship education. Introduce students to real Canadian social-entrepreneurs, expand on traits of successful entrepreneurs, which arguably are similar to those of neurodiverse learners. Lastly, the aim of The Pickle is to foster a sense of agency, in students so that they feel like they can be change-agents in their communities, rather than just participants. This shift from personal-responsible-citizens to justice-oriented-citizens is a cornerstone of the programing. In addition, The Pickle will focus on fostering SE in student teams—



intentionally curating cognitive diverse teams, to work collaboratively on a civic problem. In other words, children with work closely with peers who exhibit divergent strengths. For example, if student has Attention Deficit Hyperactivity Disorder (ADHD) and is a big-picture-thinker, they might be paired in a group to work with a student with Autism Spectrum Disorder (ASD) who demonstrates detail-oriented skills.

## ENTERPRISE DESCRIPTION

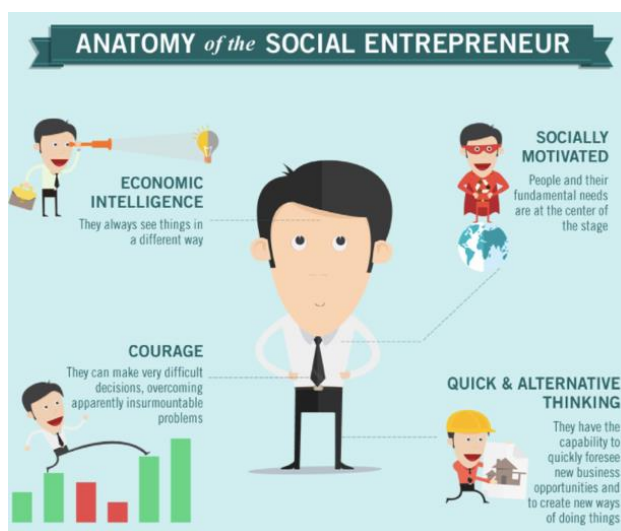
Jen Fischer, founder of The Pickle has worked for the Vancouver School Board as a Student and School Support Worker intermediately since 2008, supporting neurodiverse learners in the classroom and in community. Jen believes that often students with Ministry Designations are viewed within the classroom through a deficit model. In other words, we as educators do not always focus on the strengths of the individual child, rather how they interfere with neurotypical learning styles. She believes that many students with Ministry Designations are out-of-the-box thinkers due to their disability and demonstrate adaptation styles, developed to survive the classroom that might not have been designed to support their style of learning. For example, students who struggle with literacy skills may make behaviour adaptations by learning to ask for help when they don't understand or develop tools to mitigate their deficits. Through Jen's secondary research, she has uncovered that all co-curricular and extra-curricular social entrepreneurship and entrepreneurship programing in British Columbia are targeted for

neurotypical learners; even though the primary research on this topic suggests that students with disabilities have a strong propensity in social entrepreneurship.

## LEARNING OUTCOME & DISSEMINATION

The objection of teaching Social Entrepreneurship (SE) skills is not solely to produce a changemaker that can one day start their own business, or to become a participant of the economy; chiefly, it is about providing students with agency, transferable skills and the confidence to solve problems that they might experience directly or be indirectly impacted by in their communities. Students with learning differences, particularly those with learning dis/abilities gain confidence in being able to identify their skills and fostering an entrepreneurial disposition. What is the pathway to getting there? For starters, it is realizing that people with differences and particularly, learning disabilities have real potential in the entrepreneurship ecosystem: both in divergent teams solving complex social and environmental problems. SE has the potential to be a promising vehicle for people with people with dis/abilities. Capturing Sarah Parker Harris, Maija Renko and Kate Caldwell's thoughts on the advancement of people with disability (2014):

The role of culture calls for an attitudinal shift in how we perceive people with disabilities pursuing business development, seeing beyond reductionist perceptions of disability as a limitation or risk to seeing it as an investment in the potential of their ideas. Social entrepreneurs with disabilities are not merely people who are 'not otherwise employable,' but rather they are an untapped source of social innovation. (p.1286)



Echoing this claim, we need to reinvent how we invest, or unlearn how we view people with dis/abilities capabilities and capacity to problem solve and innovate. This new framework is "helpful to think differently about education for entrepreneurship. Such a rethinking could encompass both enterprise and business elements, and the broader development and application of entrepreneurial spirit" (Pavey, 2006, p. 226-227).

The goal of social entrepreneurship is to solve problems that traditional entrepreneurship has caused. Social entrepreneurship education is a blend of traditional entrepreneurship education, which combines

traditional business goals (Kourilsky & Walstad, 2007), an entrepreneurship mindset, blended with modalities of empathy, leadership, and justice. Concepts around social entrepreneurship are emerging in mainstream society and need to be understood as having dissimilar goals to traditional entrepreneurship. In the book *How to Change the World, Social Entrepreneurs and the Power of New Ideas* (2007), author David Bornstein quotes Bill Drayton, the founder of Ashoka<sup>1</sup> describes social entrepreneurs as, “agents of social change, whom, through entrepreneurial behavior, create solutions to social problems.” Ultimately, motivated by “altruism rather than profit...such individuals combine social goals with a business mindset to address largely unsatisfied needs in their communities” (Ghalwash, Tolba, & Ismail, 2017, p.270). The Stanford Business review summarizes the similarities between social entrepreneurship and traditional entrepreneurship: “much like its parent field of entrepreneurship, social entrepreneurship focuses on the personal qualities of people who start new organizations, and it celebrates traits like boldness, accountability, resourcefulness, ambition, persistence, and unreasonableness (Phills, 2008). There is one big difference; social entrepreneurs aim to solve long-standing social needs in their communities, while traditional entrepreneurs aim to make technological advancements (Weaver, 2016, p.9).

*“Consolidating entrepreneurial skills in young people can also create a powerful cadre of future local business and civic leaders, laying down the foundation for future local economic growth. What drives business success among young people? Individual capacities, including personal traits, creativity, motivation and powers of persuasion are often considered to be key. However, success also requires investment in supporting entrepreneurship as an alternative to regular employment and creating the base skills in young people including entrepreneurship skills, creation of entrepreneurial attitudes, as well as start-up and early-stage business development support.”*

- OECD (2013), *Local Strategies for Youth Employment: Learning from Practice*



Social innovation education is not limited to developing future entrepreneurs, it is about exploring the messiness of connections. Westley, Zimmerman, and Patton (2007), in their book *Getting to Maybe: How the World Is Changed*, describe social innovation through the lens of complexity theory. The authors explain that “getting to maybe” is a vision for change, situated within social innovation, bringing an intention to social change in our complex world, without any guarantees.

<sup>1</sup> Ashoka is one the world’s biggest social innovation platforms. Their slogan is ‘Everyone a changemaker’.

Social Innovation learning, proposed as a key theme of The Pickle, launches beyond Community Service Learning (CSL). CSL learning “promotes the notion of service... it combines ‘real world’ experiences and academic learning, encourages moral development, promotes citizenship, and facilitates a sense of social responsibility” (Kajner, Chovanec, Underwood, & Mian, 2013, p. 36). Pulling on the theories of citizenship, from Joel Westheimer, from the University of Ottawa and Joseph Kahne, from Mills College, in Oakland California, in their article *Educating the “Good” Citizen: Political Choices and Pedagogical Goals* (2004) provide compelling theories on how we teach: ‘how to be good citizens’. Kahne and Westheimer critique CSL. They argue that CSL teaches students to be *good* citizens—this achieved by participation in community, voting, philanthropy, etc., However, it often lacks politics and does not promote democracy. It works towards teaching volunteerism and does not teach about social movements, system change and social transformations. CSL rewards kindness and compassion over social justice and action (p.243). CSL encourages *Personal-Responsible Citizens*. Social innovation education encourages the shift from *Personal-Responsible Citizens* to *Justice-Oriented Citizens*. *Fostering Justice-Oriented Citizenship* is the undercurrent work of The Pickle. For example, Kahne and Westheimer say, “if participatory citizens are organizing the food drive and personally responsible citizens are donating food, justice-oriented citizens are asking why people are hungry and acting on what they discover” (p.243). Acting on what you discover is the vehicle of social innovation education.

## GOALS

**The Pickle has three objectives:**

- 1. Connect and explore the strengths of neurodiverse learners, as many of them demonstrate inherent traits of social entrepreneurship***

The Pickle aims to celebrate the traits of neurodiverse learners, which can often be presented as *negative traits* in a classroom; however, those traits deemed as negative, are favourable in problem solving and initiate to take-action. For example, *Young Entrepreneur Learning Lab*, a private entrepreneurship programming and summer camp for children aged seven to fifteen, facilitated in British Columbia and Alberta, state that although kids are naturally entrepreneurial, they possess some familiar traits, including: creativity, passion/ excitement for ideas and activities, challenges rules that don't seem to make sense. These include: high energy, perseverance, risk taking and curiosity. They state, “sometimes what may seem troublesome, i.e., challenging rules, can actually be a form of creativity and entrepreneurial intellect.” Interestingly, these listed

desirable qualities of a future entrepreneurial candidate can also be the description seen on a child's Individual Education Plan (IEP).

Successful entrepreneurial traits are alike traits of those of persons with learning differences, most prominently—learning dis/abilities. Admittedly, most of the research is focused on people with Attention Deficit Hyperactivity Disorder (ADHD) and dyslexia. Entrepreneurship “is indeed a unique area where negative traits, such as ADHD, may represent valuable assets” (Wiklund, 2017, p. 628). For example, “David Neeleman, the founder of JetBlue, a budget airline, says: “my ADD brain naturally searches for better ways of doing things. With the disorganisation, procrastination, inability to focus and all the other bad things that come with ADD, there also come creativity and the ability to take risks” (The Economist, 2012). Diverse learners, particularly persons with learning dis/abilities exhibit a range of traits, which are viewed as barriers to traditional learning—are traits that are in fact desirable in the field of social entrepreneurship. More research on this area can be found in the section titled *Primary Research*.

## **2. Advance changemaking in a world in need of environmental and civic problem solving.**

---

The aim of social entrepreneurship is to develop topical solutions to solve current environmental and social problems, many of which have been caused by traditional entrepreneurship: the “deficiencies of conventional capitalist businesses that have led to the current crisis, and which may lead to future crises” (Lautermann, 2012, p.68). Traditional entrepreneurship has caused environmental degradation and exacerbated consumption of non-renewable resources. To this point, “most conventional economists have ignored the new economy's environmental costs—the increase and acceleration of global environmental destruction, which is as severe, if not more so, than its social impact” (Capra & Luigi Luisi, 2014, p.385). Social entrepreneurship by definition is a type of entrepreneurship which aims to do business differently and does not ignore the environmental impacts of its actions. In contrast to traditional business, where externalities of current business pursuits are not accounted for, social entrepreneurship often builds on exploring and solving environmental problems as the forefront of the business model.

Environmental impacts are the by-products of capitalism and yet “the economy is wholly owned subsidiary of the environment, not the other way around” (Gaylord Nelson, Beyond Earth Day, 2002). Chiefly, of “all the environmental problems engendered by global capitalism, climate change is by far the more dangerous, threatening the very existence of life as we know it on our planet” (Capra & Luigi Luisi, 2014, p.386). These themes are summarized in chapter four of the book *Social Responsibility, Entrepreneurship and the Common Good* (2012), written by Michael DeWilde, titled *Introspection as Moral Courage: Entrepreneurs, Leaders and Social Responsibility*.

DeWilde writes: “The perfect storm of economic and environmental degradations – growing income gaps, increasing poverty, questions about access to clean water and energy, and health effects of proliferating toxins, just to name a few – will put considerable pressure on entrepreneurs and business leaders to reconsider objections they may have” (p.76). This perfect storm has brewed and continues, thus there is a loud call for bold thinkers to activate change in aim of social and environmental good. The Pickle aims to activate the capacity for changemaking a young age.

### 3. Provide students the opportunity to work in cognitive diverse teams

Encompassing a new paradigm of problem solving, where students with learning differences are agents of the decision-making process, is salient moving into a new paradigm of problem solving. It is important to consider that not everyone will become an entrepreneur, nor do all individuals with disabilities want to peruse business. However, people with learning differences may desire to be participants of a problem-solving process, although they might not be interested in launching a venture.

For example, in the case of persons with ASD, individuals with autism might not want to start a business but, might be interested in participating in the process, adding value throughout the discourse of ideation. To exemplify, an individual with ASD, might not be interested in being the face of a business, as they might not enjoy the interpersonal aspect of entrepreneurship. However, they might have a lot to contribute as a co-founder or lead team member. People with ASD have many skills, including attention to detail, which might help working with someone with ADHD who misses small details, but has strength is in seeing the larger pictures—vision of for a future venture. For example, Armstrong (2012) suggests that some people with autism are *Where’s Waldo? Experts*: “They are able to pick out seemingly irrelevant details that others miss.... That is, they fail to grasp the whole of the situation and perceive mainly the constituent parts. With that in mind, developing entrepreneurial teams might help compensate for weaknesses while propelling the strengths of having broader input from people with divergent cognitive abilities.

Sanjib Chowdhury’s (2014), article *Demographic diversity for building an effective entrepreneurial teams: is it important?* outlines,

When teams have greater coverage of the task problem space, they collectively possess more information, a greater chance of identifying all relevant task contingencies, and a higher probability to make the right decision(s), thus enjoying a higher accuracy of their mental model. As an example, if each team member has a part of a puzzle, together the team members have information about the complete problem space.



Each member has their own mental model of their puzzle piece (their perspective) and how it fits into the problem space. (p. 730)

In other words, homogeneous teams have a similar way of processing material. Teams assembled of a certain task problem space, may only prioritize a limited range within the puzzling space, unaware of how they connect to a broader picture. On the contrary, heterogeneous teams bring diverse perspectives, beliefs, thinking styles, and values to comprehend the problem space. Diversity of teams does not always need to include actors of social diversity; rather cognitive diversity stems from a diverse way of thinking. Lastly, to this point, heterogeneous teams are “more effective in solving complex, non-routine problems, which are common to entrepreneurial firms. This is because the diversity in perceptions, skills, abilities and knowledge that exists in a heterogeneous team is important for solving complex and ambiguous problems” (Chowdhury, p. 730, 2014). With that in mind, we can use these theories to understand why having a group of diverse students collaboratively working on a social issue, can be beneficial in problem solving. It will also allow students to utilize their strengths, not having to be good at everything.

## MARKET

I conducted preliminary web-based research, examining co-curricular youth business education organizations, and their programs, offered in British Columbia<sup>2</sup>. I have identified that entrepreneurship education is exclusively offered in a mainstream capacity, to neurotypical learners. Therefore, when confronting how people with disabilities access entrepreneurship education, there is a gap in provided services.

## INDUSTRY ANALYSIS

There is recent incursion of hack-a-thons, design jams and social exchanges where individuals with entrepreneurship inclinations come together to collaborate on solving problem, develop prototypes and pitch innovative product ideas or system solutions. The concept of a hack-a-thon, emerged from of the tech industry and has been used in various capacities, as an expedited way to move through the ideation and prototyping of a business idea: usually to develop a new product or service. An example, of a hack-a-thon with a social purpose is a DesignJam, generated at OCAD University, hosted in Toronto, Ontario, where Jams or ‘BigTent’ events, which they call a “multi-channel jamboree—an all-day event that gathers up to a hundred design leaders & learners, sharing ideas & tools while working to understand and address a complex problem.” OCAD has hosted various Jams, focusing on exploring persistent local and civic issues. For example, OCAD University has hosted Jams on topics such as traffic and transit in

---

<sup>2</sup> Targeting children aged five to 19 years of age

the Greater Toronto area and in the arena of food security and refugee resettlement in the Waterloo region. The events bring together various stakeholders including: scholars well researched in the topic area; industry leaders who work closely with the topic area; and people who have real world experience living in or in close proximity to the problem.

*Inventive Labs* in Amesbury, Massachusetts hosts an annual Pitch Competition, similar to a hack-a-thon style design, for teams of young adults with ADHD, dyslexia or who are on the autism spectrum wanting to develop a business idea. Participants of Inventive Lab's Pitch Competition, are required to attend a month-long business accelerator program for youth with learning disabilities, prepare for their five-minute business pitch. Inventive Labs provides over \$160K in prizes for best pitches. This program, although a progressive program, inclusive of different learners does not aim to integrate social modalities like justice, leadership and empathy.

Entrepreneurship skills can be taught and fostered in the classroom, where young minds are fertile and opportunities to investigate social problems are relevant. Some of this shift has already come in British Columbia (B.C.) with recent implementation of the new curriculum. The six core competencies: *Communication; Creativity Thinking; Critical Thinking; Personal Awareness and Responsibility; Positive Personal & Cultural Identity* and lastly, *Social Identity*. All six competencies connect strongly with fostering social innovation and have strong propensity to provide a new paradigm for neurodiverse students in the classroom.



However, even with implementation of the new curriculum, I do believe that the B.C., Ministry of Education and other private organizations have not taken bold enough action to target entrepreneurship education for people with learning differences, particularly people with learning dis/abilities. Therefore, students with learning differences with not directly receive these appropriate resources, tools to foster an entrepreneurial mindset.

## HUMAN RESOURCES

Thirty students will be recruited to participate in The Pickle for the district wide Professional Development Day on Friday, November 9<sup>th</sup>. Information packages about The Pickle will be disseminated through Metro Vancouver's communication channels. The goal is to directly reach out to teachers to inquire if they have and can recommend their neurodiverse students, which they believe would benefit from The Pickle's programming. The vetting process for applicants is still not flushed out.

The steering committee for The Pickle is a curated team of ten Teachers and Student and School Support Workers (SSSW) in the Vancouver School Board. There are five teachers and five SSSW's working together to develop and deliver the best experience for neurodiverse students. Four of these teachers were once SSSW's prior to moving into a teaching role, making them strong advocates of students with various abilities. The steering committee will be meeting bi-weekly until mid-November, and twice after The Pickle on November 9<sup>th</sup> to evaluate programming and investigate how we would like to knowledge share what we learned during our programming.

**Current Partners** to date include:

- VSB (pending)
- Metro Vancouver (Bruce Ford)
- [League of Innovators](#) (willing to support us, and provide entrepreneurship learning content)
- 312 Main (provide us will space for event)

## PHYSICAL RESOURCES

- **Location:** We are working on securing a location for The Pickle. After preliminary conversations with [312 Main](#), a co-working cooperative space in the Downtown East Side, they have suggested that they will host us for no cost. Providing us will appropriate space for the entirety of our event. It is important to mention that 312 Main is located in community and shares common values with The Pickle.
- **Funding Structure:** We are applying for a [Systems Change Grant](#) from Vancouver Foundation for \$20,000 to pay for catering for: breakfast, snack and lunch; cool prizes; gifts and small monetary domination for keynote speakers (two Canadian social entrepreneurs), similarly, three panelists who will be judging student projects; transportation (i.e., bus fare) costs for staff and students; logistical costs for chair, table and technology rentals, etc; thank-you cards to be mailed to all stakeholders and supporters.
- **External Budget:**
  - Human pay:* All staff members will be paid through the VSB, a part of their personal development to host the event. We are currently working on getting VSB approval for all ten staff members to support The Pickle, for pay on November 9<sup>th</sup>.
  - Student pay:* All programming is free of cost and accessible to all student dependent on parents' income.

## PICKLE DAY AGENDA

### *(Tentative), Day Agenda*

#### **Friday, November 9<sup>th</sup>**

**8:30-9:00am:** Breakfast

**9:00-9:10am:** Brief Introduction

**9:10-9:30am:** Group Leaders facilitate group activity to understand who is at the table. Strength finding activity

**9:30-10:00am:** Presentation on what social entrepreneurship is. Exposure to two Canadian Social Entrepreneurs present on their start-ups and how they are changemakers

**10:00am-10:15am:** Break time. Snacks served

**10:15am- 10:30am:** What is social entrepreneurship and changemaking? Brief introduction.

**10:30-11:00am:** Metro Vancouver introduces civic problem they're working on (i.e., kids not feeling safe walking to school in particular area; derelict alley way that kids use to get to school; water ban prevents neighbourhoods from watering plants; strangers walking into playground during recess; Metro Vancouver is worried that too much garbage is flushed down the toilets, etc.)

**11:00am-11:45am:** Group Facilitators work with team of 4-5 students on mini charrette. Ideas about how to solve problem presented by Metro Vancouver. Exploring: *impacts* (how does this make you feel and those directly impacted by it. Who is impacted?), *sources* (how did this happen, and why has nothing been done to stop it, or if they have tried why hasn't it worked?), *solutions* (how can we change this). Sticky notes will be provided to each table, and kids will brainstorm ideas, providing ideas for each of the three categories.

**11:45am-12:30pm:** Lunch is served

**12:30pm- 2:00pm:** Teams work on project-based solutions.

Teams must create 5-page slide show.

*Slide 1:* Problem (what and how is happening. Include feelings, obstacles and general issues surrounding problem)

*Slide 2:* Cause (why this is happening, what sources influenced this to be the way it is. Who was involved? How must people feel? \*exercise in empathy and impact)

*Slide 3-5:* Solution, present an idea (service, campaign or product that aims to solve the issue).

Slides must include how much it will cost (est. budget). In addition, what resources are needed and who is needed to fix it? It must also include an illustration of the problem and a before and after image.

**2:00pm-3:00pm:** Pitches. Each team pitches on stage their project idea to the audience using a microphone and projector.

### Projects will be evaluated on:

1. Out of the box thinking/ creativity. \_\_\_/5
2. Understanding root cause of problem (do students demonstrate understanding of problem?) \_\_\_/5
3. Feasibility of solution presented \_\_\_/5

*Prizes will be awarded for the best project ideas.*

## PRIMARY RESEARCH

In British Columbia classrooms, “the number of students identified as receiving services for learning disabilities<sup>3</sup> is reported to be about three percent of the student population across school districts.” However, in the Province of British Columbia, boards of education only report students as having a learning disability (LD) when students are receiving services (Province of British Columbia, 2011, p.8). This indicating that many students with LD designations may not be receiving services, considering that LD makes up four and a half percent of disabilities in Canada, as stated above.

Interestingly, The Canadian Teachers’ Federation national survey of 3800 teachers, of 9,900 classes found that the “average number of disabilities per class was 3.5 students” which did not include students with learning disabilities or those disabilities still waiting to be identified (Canadian Centre for Policy Alternatives, 2015, p.12). Students who would make good candidates for The Pickle, may include students with B.C. Ministry Designations: G: Autism Spectrum Disorder (ASD); H: Students Requiring Intensive Behavior Intervention or Students with Serious Mental Illness; K: Mild Intellectual Disabilities; P: Gifted; Q: Learning Disabilities; R: Students Requiring Behaviour Support or Students with Mental Illness

To delve deeper into the first objection of The Pickle, which is to recognize the connection between dis/ability and entrepreneurship. I provide a list of traits that may be exhibited by neurodiverse people. Below is a list of key traits that some neurodiverse learners demonstrate, making them good candidates for SE.

## RISK TAKING

---

---

<sup>3</sup> The Province of British Columbia, Ministry of Education document, titled *Supporting Students with Learning Disabilities: A Guide for Teachers* (2011), outlines a detailed list of learning disability types: Attention Disability (ADHD); Speech and Language Impairment; Memory Difficulty. Arithmetic Disorder (Dyscalculia), Writing Disorder (Dysgraphia), Reading Disorder (Dyslexia), Spelling disorder (Dysorthographia), Auditory Processing Disorder, Visual Processing Disorder (Visual Perception), Sensory Integration (or Processing Disorder), Organizational Learning Disorder and Social Cue Disorder.

To begin with, people with ADHD and dyslexia alike, both have a robust propensity for risk taking. ADHD markers include taking risk: “genetic variations of dopamine receptors in ADHD are associated with increased novelty-seeking and risk taking” (Wiklund, Patzelt, & Dimov, 2016, p.15), as a consequence, “children and adolescents with ADHD may be more likely to engage in risky behavior than others” (Verheul, Burmeister, & Tiemeier, 2015, p.89). This for example, might be a concern for educators of children with ADHD, as the child might not think twice before engaging in risky behaviour, but for an entrepreneur it is quite the contrary—risk taking is generally an asset. Entrepreneurs bear, “the burden of risk and staring failure squarely if not repeatedly in the face (Martin & Osberg, 2007), which would come naturally to a person with ADHD. One study researched 102 entrepreneurs and 37 corporate managers in the US and the UK, from an article titled *Dyslexic Entrepreneurs: The Incidence; Their Coping Strategies and Their Business Skills (2009)* by Julie Logan, published in the journal *Dyslexia*. In her research she found that of the 102 entrepreneurs, 36 of them had four or more traits of dyslexia, while three of the corporate managers had more than four traits of dyslexia. The study showed that: “all entrepreneurs were likely to say that they had a high level of risk taking. Those who were dyslexic were slightly more likely to perceive their propensity for risk taking as higher than non-dyslexic entrepreneurs” (p. 335). Thus, Logan’s research on entrepreneurs with dyslexia, like ADHD, demonstrate that risk taking is high. Risk takers are not immobilized by perceived risk. Risk is necessary to activate a newness.

## IMPULSIVITY

---

Impulsivity a key characteristic that circumscribes ADHD, is a symptom that increases risk taking and the propensity for action under uncertainty (Thurik, Khedhaouria, Torres, & Verheul, 2016, p. 572-573). Impulsivity is a key characteristic that circumscribes ADHD. In the classroom for a young child with ADHD, impulsive symptoms include: blurting out answers before a question has been completed; difficulty awaiting turn and interrupting or intruding on others, e.g., butts into conversations or games (B.C., Ministry of Education, Supporting Students with Learning Disabilities: A Guide for Teachers, p.8).

People who do not premeditate are more likely to be attracted to entrepreneurship and have stronger entrepreneurial preferences because they likely ignore negative information suggesting that the risk of failure is high. They are also more likely to forge ahead and act on their preferences because they don't consider all the consequences of their actions (Wiklund, 2017, p.632-33). Moreover, impulsive individuals may be particularly attracted to and suitable for entrepreneurship because they likely thrive on uncertainty and prefer action over analysis (Verheul et al., 2015; Wiklund, 2017, p. 638-640).

## FOCUS (OR LACK OF)

---

As the acronym conveys, people with ADHD display an inconsistency of attention. Interestingly though, a person with ADHD can over focus on a topic that is of interest to them (Colley, 2009, p.173). Gabor Maté (2012) elaborates when he describes people with ADHD “showing what they can do if they really want to” or “if they put their mind to it.” When students are excited about an idea, or passionate about solving a problem, often they work with blinders on, working diligently, absorbed in a task. In the book *Neurodiversity in Higher Education* (2009), Mary Colley in chapter eight, argues that people with ADHD “may only be able to finish a task when there is ‘pressure under the gun’—a clear motivating factor or deadline. In these cases, there tends to be a rush of adrenaline to help them (p. 173). This would be a problem for a student in a classroom, whose attention might be sparse on a topic that does not interest them. However, the entrepreneur has autonomy to delve into topics that interest them. Entrepreneurship similarly, is high paced and many decisions need to be made under the *pressure of a gun*, which makes having the traits of attention inconsistency an actual asset.

Traits of intense focus can be seen with people with learning differences. In the case of individuals on the Autism Spectrum,<sup>4</sup> where often their ability to prioritize logic over emotions can aid in focus and productivity. This trait of what some researchers describe as; *minblindness*, “may actually fine-tune [the] brain for greater achievements” (Kopelson, 2015, p.599). Defined/ Moreover, Forbes Magazine (2017) reported that individuals high functioning with ASD “outperformed their non-autistic peers, with productivity increases ranging between 48% and 120%. In one study of entrepreneurs with ADHD traits, it was reported that “several respondents noted that they have a higher work capacity, higher energy level and less need for sleep than other (non-ADHD) people they know (Wiklund, Patzelt, & Dimov, 2016, p.19).

## CREATIVITY

---

People with learning differences exhibit traits of creativity (Parker Harris, 2014, p.1286), and it is also not surprising that creativity is a marker for success in entrepreneurship (Bornstein, 2007, p. 97). Creativity and innovation are often used interchangeably in the literature, but it is important to distinguish innovation from creativity. “Creativity refers to the development of novel, potentially useful ideas. Therefore, creativity might best be conceptualized as a first step that is necessary for subsequent innovation” (Shalley, Zhou, & Oldham, 2004, p. 934). Measuring for creativity varies in the literature. There are various tools to assess creativity and they can fall in into three general categories:

---

<sup>4</sup> Autism Spectrum Disorder (ASD) is not a homogeneous in nature. Rather people with ASD vary from low-function to high. Here I am referring to people with high functioning ASD.

1) requiring subject to respond in novel or innovative ways; 2) self-reporting inventories and, 3) “tasks assessing the ability to find insightful solutions to complex problems” (Everatt, 1999, p.30). The Province of British Columbia, Ministry of Education document, titled *Supporting Students with Learning Disabilities: A Guide for Teachers* (2011),<sup>5</sup> define dyslexia as a *reading disorder*, “generally characterized by difficulties with the alphabet, word recognition, decoding, spelling, and comprehension” (p.16). Not specifying the trait of creativity, regardless of the compelling literature outlining that people with dyslexia are more creative than those without dyslexia (Armstrong, 2012; Everatt, 1999; Grant, 2009; Smith & Conley, 2016). This is salient due to the fact that if creativity is fostered it can lead to innovative proclivity. Again, creativity is the building block of innovation.

## OUT OF THE BOX-THINKING + SYSTEM THINKERS

---

“Neuroscience research suggests that individuals with dyslexia have a very different pattern of brain activation compared to neurotypical readers” (Armstrong, 2012, p.29), and this may be one of the key reasons, people with learning differences are able to see the big picture (Smith & Conley, 2016, p.535,) and “demonstrate superior intuitive “out-of-the-box” thinking which can be invaluable in starting a new business” (Armstrong, 2012, p 38-39). Most learners with dyslexia need to “know the big picture when learning... and cannot learn at all without it” (Grant, 2009, p.74) and this is why “compared with non-dyslexics, dyslexic adults presented consistent evidence of greater creativity in tasks requiring novelty or insight and more innovative styles of thinking” (Everat, 1999, p. 28). It is noteworthy to point out that 80% of dyslexic learners prefer to problem solve visually. Likewise, 55% non-dyslexic learners who also preferred to solve problems visually. “Most people (91%) are capable of thinking verbally (in a similar way to right - handed people being capable of using their left hands). But when it comes to problem-solving, or really making sense of something, most do this visually. However, there is a difference of degree: 33% dyslexics can only do this visually compared to 5% of non-dyslexics” (Grant, 2009, p.74).

Key indicators of dyslexia include having difficulty in literacy skills, which include reading and writing. They have trouble interpreting words, letters and symbols; nevertheless, they are often highly intelligent and articulate despite these challenges. Creative thinking: ability to think in images, together with thinking outside the box thinking does in fact help with problem solving, particularly when frustrated with sequential processing (Smith & Conley, 2016, p.531).

People with learning differences are system thinkers. Donna Haraway’s (2016) description of *sybiogenesis*, meaning *making with* and Armstrong’s (2012) description

---

<sup>5</sup> Ministry documents all cite the Educator’s Diagnostics Manual of Disabilities and Disorders (DSM)



of comparing ecology to children with learning differences as *brainforest*, are two possible ways to illuminate the cognitive function of people with ADHD, dyslexia and other learning variances

## REFERENCES

- Armstrong, T. (2012). *Neurodiversity in the Classroom: Strength-Based Strategies to Help Students with Special Needs Succeed in School and Life*. Alexandria, Virginia USA: ASCD.
- Building Student Success - BC's New Curriculum. (n.d.). Retrieved March 16, 2018, from <https://curriculum.gov.bc.ca/>
- Bornstein, D. (2007). *How to Change the World: Social Entrepreneurs and the Power of New Ideas* (Updated ed.). Oxford; Toronto; Oxford University Press
- Capra, F., Luisi, P. L., & Cambridge Books. (2014). *The systems view of life: A unifying vision*. Cambridge: Cambridge University Press
- Chowdhury, S. (2005). Demographic diversity for building an effective entrepreneurial team: Is it important? *Journal of Business Venturing*, 20(6), 727-746. 10.1016/j.jbusvent.2004.07.001
- Colley, M. (John Wiley & Sons Ltd.). Attention Deficit (Hyperactivity) Disorder – AD(H)D (Chapter 8). In D. Pollak (Ed.), *Neurodiversity in Higher Education: Positive Responses to Specific Learning Differences* (pp. 1-309). UK: John Wiley & Sons, Publication. doi:2008052047
- Completion Rates for 2016/17 B.C. Public School System. (n.d.). Retrieved March 31, 2018, from <http://www.bced.gov.bc.ca/reporting/systemperformance/?evidence=completion-rates&sd=048>
- DeWilde, M. (2012). Introspection as Moral Courage: Entrepreneurs, Leaders and Social Responsibility. In *In Social Responsibility, Entrepreneurship and the Common Good, International and Interdisciplinary Perspectives* (pp. 1-313). Hampshire: Macmillan Limited. doi:10.1057/9780230354890
- Everatt, J., Steffert, B., & Smythe, I. (1999). An Eye for the Unusual: Creative Thinking in Dyslexics. *Dyslexia*, 5(1), 28-46. 10.1002/(SICI)1099-0909(199903)5:13.0.CO;2-K
- Design thinking for young startups | DesignJam. (n.d.). Retrieved March 12, 2018, from <https://designjam.ocadu.ca/>
- Ghalwash, S., Tolba, A., & Ismail, A. (2017). What motivates social entrepreneurs to start social ventures?: An exploratory study in the context of a developing economy. *Social Enterprise Journal*, 13(3), 268.

Grant, D. (2009). The Psychological Assessment of Neurodiversity (Chapter 3). In *Neurodiversity in Higher Education, Positive Responses to Specific Learning Differences*. UK: A John Wiley & Sons, Publication. doi:2008052047

In praise of misfits: Why business needs people with Asperger's syndrome, attention-deficit disorder and dyslexia. (2012, July). *The Economist*.

Kajner, T., Chovanec, D., Underwood, M., & Mian, A. (2013). Critical Community Service Learning: Combining Critical Classroom Pedagogy with Activist Community Placements. *Michigan Journal of Community Service Learning*, 19(2), 36.

Kourilsky, M. L., Walstad, W. B., & Thomas, A. (2007). The entrepreneur in youth: An untapped resource for economic growth, social entrepreneurship, and education. Cheltenham, UK;Northampton, MA;: Edward Elgar.

Lautermann, C. (2012). Social Entrepreneurship: ProspActive Responsibility for a Better Society. In *Social Responsibility, Entrepreneurship and the Common Good, International and Interdisciplinary Perspectives*(pp. 1-313). Houndmills, Hampshire: Macmillan Limited. doi:10.1057/9780230354890

Logan, J. (2009). Dyslexic Entrepreneurs: The Incidence; Their Coping Strategies and Their Business Skills. *Dyslexia* (Chichester, England), 15(4), 328-346. 10.1002/dys.388

Maté, G. (2012). *Scattered Minds: The Origins and Healing of Attention Deficit Disorder*. Toronto: Vintage Canada.

Martin, R. L., & Osberg, S. (2007, Spring). Social Entrepreneurship: The Case for Definition. *Stanford Social Innovation Review*. doi:https://ssir.org/articles/entry/social\_entrepreneurship\_the\_case\_for\_definition#

OECD, LEED. (2009). Forum on Partnerships and Local Governance. (n.d.). *Shooting for the Moon: Good Practices in Local Youth Entrepreneurship Support* (pp. 1-72).

OECD, LEED. (2013). *Local Strategies for Youth Employment: Learning from Practice* (2nd ed., No. 96161, pp. 1-74). Paris: OECD Publishing.

Parker Harris, S., Renko, M., & Caldwell, K. (2014). Social entrepreneurship as an employment pathway for people with disabilities: Exploring political-economic and socio-cultural factors. *Disability & Society*, 29(8), 1275-1290. 10.1080/09687599.2014.924904

Parker Harris, S., Caldwell, K., & Renko, M. (2014). Entrepreneurship by any other name: Self-sufficiency versus innovation. *Journal of Social Work in Disability & Rehabilitation*, 13(4), 317-349. 10.1080/1536710X.2014.961115

- Pavey, B. (2006). Human capital, social capital, entrepreneurship and disability: An examination of some current educational trends in the UK. *Disability & Society*, 21(3), 217-229. 10.1080/09687590600617337
- Phills, J.A., Jr, Deiglmeier, K. and Dale, M.T. (2008), "Rediscovering social innovation", *Stanford Social Innovation Review*, Vol. 6 No. 4, pp. 34-43.
- Province of British Columbia, Ministry of Education. (2011). *Supporting Students with Learning Disabilities A Guide for Teachers*(pp. 1-193).
- Schilpzand, M.C., & Martins, L.L. (2010). cognitive diversity and team performance: The roles of team mental models and information processing. *Academy of Management Annual Meeting Proceedings*, 8(1), 1-6. 10.5465/AMBPP.2010.54484962
- Shalley, C. E., Zhou, J., & Oldham, G. R. (2004). The effects of personal and contextual characteristics on creativity: Where should we go from here? *Journal of Management*, 30(6), 933-958. 10.1016/j.jm.2004.06.007
- Smith, R., Conley, G., Smith, A. M., & McElwee, G. (2016). Assessing the impact of 'farming with dyslexia' on local rural economies. *Local Economy: The Journal of the Local Economy Policy Unit*, 31(5), 529-538. 10.1177/0269094216655404
- The Incubator Designed for ADHD, Dyslexia and Autism Spectrum. (n.d.). Retrieved March 30, 2018, from <https://www.inventivelabs.org/>
- Thurik, R., Khedhaouria, A., Torrès, O., & Verheul, I. (2016). ADHD symptoms and entrepreneurial orientation of small firm owners: ADHD symptoms and entrepreneurship. *Applied Psychology*, 65(3), 568-586. 10.1111/apps.12062
- Thompson, J., Alvy, G., & Lees, A. (2000) Social Entrepreneurship – a new look at people with the potential, 38(5), 328-338. <https://doi-org.ezproxy.library.ubc.ca/10.1108/00251740010340517>
- Verheul, I., Block, J., Burmeister-Lamp, K., Thurik, R., Tiemeier, H., & Turturea, R. (2015). ADHD-like behavior and entrepreneurial intentions. *Small Business Economics: An Entrepreneurship Journal*, 45(1), 85-101. 10.1007/s11187-015-9642-4
- Verheul, I., Rietdijk, W., Block, J., Franken, I., Larsson, H., & Thurik, R. (2016). The association between attention-deficit/hyperactivity (ADHD) symptoms and self-employment. *European Journal of Epidemiology*, 31(8), 793-801. 10.1007/s10654-016-0159-1
- Weaver, R. L. (2016). Social enterprise self-employment programs: A two-dimensional human capital investment strategy. *Social Enterprise Journal*, 12(1), 4-20. 10.1108/SEJ-06-2015-0017

Westheimer, J., & Kahne, J. (2004). Educating the "Good" Citizen: Political Choices and Pedagogical Goals. *PS: Political Science and Politics*, 37(2), 241-247.

Wiklund, J., Patzelt, H., & Dimov, D. (2016). Entrepreneurship and psychological disorders: How ADHD can be productively harnessed. *Journal of Business Venturing Insights*, 6, 14-20. 10.1016/j.jbvi.2016.07.001

Wiklund, J., Yu, W., Tucker, R., & Marino, L. D. (2017). ADHD, impulsivity and entrepreneurship. *Journal of Business Venturing*, 32(6), 627. 10.1016/j.jbusvent.2017.07.002