

Lighting the Spark, Nurturing the Flame

—an independent report on Young Entrepreneurs of Canada Association’s efforts to activate an entrepreneurial mindset, engage students, and energize school and community culture using their PowerPlay Young Entrepreneurs program.

June 2023
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About the author: Simeon Brodsky is an independent consultant who has worked in education in the US and abroad for over 30 years. His projects have ranged from large-scale government reforms designed to shift K-12 education to targeted, school-based initiatives designed to activate and empower students. Simeon’s experience at the Johns Hopkins University Center for Talented Youth (CTY) began in academic programs and culminated in the role of the Senior Advisor for Strategy and Innovation. Along the way, he spent 10 years as the Director of International Initiatives, building collaborations in 25+ countries ranging from Canada to Kazakhstan to Singapore and the United Arab Emirates. His deep commitment to living and learning communities, young people’s curiosity, and teacher support has led to frequent speaking engagements at international conferences on innovation and high ability students, including a UNESCO Symposium focusing on high impact STEM education programs and the global scaling challenge.

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Imagine you are the principal of a middle school having a lazy morning on a “snow day” and you are contacted by a student. The student is asking you to open school so he does not miss a day of an educational program you are offering. Now, imagine that another student reaches you with a similar request. This is the story told by a principal in New Brunswick when discussing Young Entrepreneurs of Canada Association’s (YE-Can) school-based PowerPlay Young Entrepreneurs (PPYE) program and is but one of a number of similar stories told by principals, teachers, students, and parents during a 2023 review of YE-Can’s activities.

Something important is happening—a story of growing student engagement, focus, and success across a far wider range of students than typically happens in most schools. This report attempts to draw out some of the key components of PowerPlay Young Entrepreneurs (and YE-Can’s related activities) and its impact to shine a light on how PowerPlay acts both as a catalyst and a keystone to changes in student thoughts and behavior and ultimately school and community culture. The report also looks at possible next steps for YE-Can and its efforts to instill the entrepreneurial spirit in the next generation of Canadians and to make schools more engaging, more rigorous, and more relevant to a broader range of students.

*What child doesn’t wish for a snow day? One who is invested, engaged and committed.
—Educator*

To do so, the report draws from other studies for quantitative details suggesting high levels of teacher and student satisfaction, developing skills, and changing attitudes. The report interweaves a number of vignettes displaying PowerPlay’s impact across a range of stakeholders. Through both, it attempts to paint a picture of how a simple mix of the proper ingredients have led to an outcome far greater than one might expect.

What is Young Entrepreneurs Canada?

Young Entrepreneurs of Canada Association (YE-Can) is a registered charity with a mandate to help young Canadians develop an entrepreneurial mindset. YE-Can’s activities are based on three core beliefs:

1. To create positive social change, we must equip more young people with the entrepreneurial skills necessary to read, react to, and drive an ever-shifting economic and societal landscape.
2. Students learn best in an authentic, real-world environment where the stakes are concrete and the impact of their efforts more tangible than just a good grade.
3. To try to make the world a better place for oneself without also trying to make the world a better place for everyone is a hollow activity.

Since, 1999, YE-Can and its founders have acted upon these beliefs through a range of programs and activities. The effort started small and focused on efforts in BC, working out the necessary variations and details across a range of schools within the Province before even considering questions of scaling. In 2018, the Government of New Brunswick invited YE-Can to launch in their Anglophone school districts and the charity used this as an opportunity to build a rock-solid model for moving forward. Now, its signature experiential learning program, PowerPlay Young Entrepreneurs® (PPYE) is housed in schools across Canada from British Columbia to New Brunswick—in urban, suburban, rural, and First Nation communities.

Over 120,000 students have taken part in YE-Can opportunities ranging from PPYE to entrepreneurship workshops to speaker events to targeted leadership programs. Central to each activity is the notion that once young people’s curiosity is activated and the faint traces of a potential path forward are marked, their youthful energy and innate desire for discovery will lead them to seek answers and take stride with increasing confidence.

What is PowerPlay Young Entrepreneurs?

This question has two very equally important answers. First, it is the signature program of YE-Can—a carefully designed, supple program that engages young people at school. Second, it is truly a change agent: a first step for students and schools on their journey to a more student-centered, authentic approach to learning, and a catalyst and connector for positive personal and social change.

PowerPlay Defined

As summarized by researchers at Simon Fraser University¹:

PowerPlay Young Entrepreneurs is a classroom-based experiential learning program that helps Grades 4-8 students explore their passions, talents and interests as they plan and implement their own real business ventures. The program is designed for classroom teachers and easily integrates into different subject areas. The turnkey resource package (a comprehensive teacher manual, student workbook, parent information brochure and online videos) supports implementation. The program typically runs over a six-week period and is designed to be adapted to meet multiple classroom goals. There are also opportunities for meaningful parental and community involvement.

PowerPlay maps closely to the various mandated Provincial learning outcomes across Canada and is designed in a manner that meets the needs of a variety of learners and a variety of learning environments. A few things to note about PowerPlay Young Entrepreneurs:

- Unlike many programs that teach “business,” “financial literacy,” and/or programs that teach “entrepreneurship”, PPYE’s emphasis is solidly on the process rather than the

¹ Mindset Matters: Encouraging an Entrepreneurial Mindset in K-12 Curriculum. Gemino et al. White Paper. Beedie School of Business, Simon Fraser University.

product. This means that deep learning takes place even when (often, *especially* when) the product fails to generate interest. Reflection is key.

- Because of its “process” focus and the collective success of making larger donations to community organizations, students tend to be highly supportive of each other. This is often not the case in programs where the primary measure of success is selling more than others or turning a higher profit than others.
- Though PPYE has a final showcase, the students’ entrepreneurial activities do not necessarily end with the showcase. In fact, a number of students and schools have built upon their lessons learned in the six program modules to create ongoing businesses.
- Students must actively develop competencies such as critical thinking, creativity, and communications in order to achieve their business goals.
- PPYE is designed to provide structure and rigor while at the same time providing opportunities for flexibility and student and school adaptation. Though there are ample “curricular resources,” these are intended to serve as a support and baseline to ensure quality. The intent is for teachers to build upon their strengths, the assets of their school and community, and student interest. Much like the pedagogical approach, PowerPlay’s curriculum is designed to engage and co-create more than dictate.

The PPYE program features six dynamic learning modules that take students through each step of the product and business design process. It culminates in a showcase event where students market their materials to a broader audience. In some communities, these markets have been closed to school members and their families. In other communities, these markets have expanded to include immediate neighbours (such as nearby military bases and retirement communities) and even the broader community. Some schools are currently in the process of expanding even further to virtual marketplaces.

KEY FEATURES

Design Thinking



Use prototyping & market research to create products.

Business Plans



Prepare professional business plans.

Financial Literacy



Get real loans & earn/manage real money.

Marketing Strategy



Design sales table, displays & advertisements.

Showcase Event



Interact with customers and make real sales.

Social Responsibility



Donate a portion of profits to charity.

PowerPlay as Change Agent

In addition to being described as a stand-alone program, PowerPlay Young Entrepreneurs can also be described as a catalyst and a connector. Throughout, this report tells the story of how program has an impact far beyond a short-term school project. For many of its participants, PowerPlay has become a “way of being.”

Both teachers and students, for example, have found a stronger sense of place and stronger voice. For some teachers, PPYE acted as a scaffold for their first steps into passion-driven, project-based learning. It allowed them a taste of what a classroom could be like when most, if not all, students were engaged, on task, challenged, and included. For students, a number felt for the first time what it meant to both see the relevance of what they were learning and to feel their own relevance in the classroom.

At the school level, PPYE often fostered conversations about next steps and how to build upon the high levels of student interest. Some schools, for instance, had planned on running PowerPlay only for their sixth-graders and then suddenly found themselves deep in discussions with their seventh-graders who had participated in PPYE the year before and were pressuring their teachers to allow them to do it again. Teachers began visiting the PowerPlay classroom and in some Districts even began visiting other schools to learn more about PowerPlay and how school communities have taken it to the next level.

One of the beauties of the PowerPlay approach is its flexibility. Although it is structured with workbooks and support materials for teachers, students, and families, it is also designed to meet students where they are. Specifically, it is individualized enough to both allow students to identify and follow their interests and to continue to raise their personal bars as they grow more confident through both their successes and failures. Moreover, PowerPlay adapts easily to the reality that not all schools are created equal in terms of experience and quality of teachers, access to technology, or skill level and general levels of engagement of students.

Beyond PowerPlay

It is important to note that YE-Can’s activities are not limited to PPYE even though it is often a launch pad for students and schools. Through the support of the Government of Canada and other benefactors, YE-Can has sponsored a range of events. In British Columbia these have included pitch events and innovation days as well as creating special programs for “Young Women Founders” and “Young Indigenous Leaders.” In Saskatchewan, YE-Can offered a series of events that reached over 350 students and brought together a team of volunteers including Mayors, Chamber of Commerce representatives, business people, and school superintendents. These events are in addition to the student-driven efforts to create in- and after-school opportunities that allow them to extend upon their PowerPlay experience to further develop their products and businesses.

² Graphic from PowerPlay Young Entrepreneurs—NB Impact Report, 2019.

One school in New Brunswick has taken their lessons learned through PPYE and has now developed a full product line of school-branded items. They have self-organized into design, production, and marketing teams and with the help of YE-Can are branching into e-commerce. In reflecting upon the impact of PPYE on his school community, one principal shared that if the student group continues at its current pace, gone are the days of the school bake sales of the school asking students to sell candy bars to raise money. The students are the solution.

In fact, one of the strengths of YE-Can's approach to next steps is its understanding of the importance to listen and be responsive to students. As Bill Roche, the executive director explained, "We tried giving a standard curriculum for the afterschool programming and quickly realized that kids need a freedom to be able to get acting on their goals rather than following and participating in set activities. This has been working tremendously well and it is a key driver of success with the program." This has meant that YE-Can has been able to connect schools to videographers if they need help developing their marketing materials and that YE-Can has been able to help with technology if a school wants to branch out into a certain direction. The principles remain the same; the precise direction is determined by student interest, school resources, and community assets broadly defined.

Isn't PPYE just another form of the other business-related programs for young people?

PowerPlay Young Entrepreneurs and YE-Can's broader efforts have some similarities to these groups in that they both place a premium on empowering students by helping them develop a more entrepreneurial mindset and necessary skills for success. They are also similar in that they tap into community networks to create mentoring opportunities for young people. They also differ in some very important and somewhat fundamental ways.

First, YE-Can anchors its efforts solidly in the schools. Young people spend the bulk of their waking time in schools and to fully prepare them, schools need to become more responsive and more relevant. Though YE-Can is not explicitly trying to upend education, it is trying to show how activating student interest can transform school culture, increase student engagement, and deepen student learning. It does this both through teacher professional development and by unleashing hordes of focused, excited young people upon their schools. In doing so, YE-Can also illustrates how schools can become more relevant centers of a community where people of all ages can come together to learn and to celebrate the accomplishments of students.

Second, YE-Can emphasizes process over product. Though PPYE students can boast of some highly creative and highly successful products, the power of YE-Can's approach is that its efforts bring students together and balances any notions of competition with equally powerful messages of inclusion, supporting each other, and supporting the community. Though this may seem a subtle difference, you can hear its importance when speaking to students, educators, families, and community members across the board.

It is all About the Students

The student story of PowerPlay—both the core program and its extensions—was one of engagement and relevance. Students spoke of the power of working on math problems that directly helped them better understand how to price their products; they spoke of the importance of developing powerful, persuasive scripts for their commercials; and they spoke of their need to seek out answers to problems to overcome the obstacles to their success.

The thing I like about being in charge is that I got to make my own decisions and even if it didn't work out, I got to figure out how to fix them. —Student

A number of themes emerge when listening to PowerPlay students. In the educational literature, these broadly categorize into terms like “building social emotional competencies,” “developing 21st Century skills,” and “embodying a growth mindset.” In practical terms, students talk about developing a sense of meaning and belonging, learning about their own interests and strengths, sparking their curiosity and finally understanding the relevance of school, and feeling liberated by failing.

Belonging

Scholarship in the science of learning emphasizes that feeling safe is central to learning. If the desire to fight, flee, or freeze is too great, students cannot effectively activate those parts of the brain that allow them to anchor knowledge, synthesize their learning, and incorporate the new knowledge into their everyday lives. Many schools have approached this new understanding of how students' brains work by placing increased emphasis on school culture and by creating or adopting programs targeted on social emotional learning. Many such programs are meaningful; however, most are detached from the core content of schools and operate on the hope that students are then able to transfer the lessons learned to a different context.

What seems to be happening with PowerPlay is that students develop their social-emotional awareness and deepen their social-emotional skills through the process of product design and taking the product to market. More than one student commented on how they had always struggled to work with other students and that one of the key things they learned from PowerPlay was how to help someone without seeming “bossy” and how to give and receive constructive feedback.

In fact, the PowerPlay model incentivizes students to support each other as well as doing their best. PPYE builds in the need for “market research” and also cleverly emphasizes process over product. While all students hope to make money by selling their product, this is not PPYE's point of emphasis. The program by design focuses on students stretching themselves by exploring new ways of thinking and pushing themselves outside of the individual and group

comfort zones. This all takes place against a backdrop of students learning how they can both turn a profit and collectively contribute to their community. This collective approach, as the students work toward a common goal, also means that students become more keenly aware of each other's strengths and weaknesses. For instance, one student who struggled with writing a business plan turned to a classmate who helped him produce a video business plan.

Failure and Creativity

For many students, middle school is a time of great anxiety as they both try to fit in and try to differentiate themselves from others. For some students, this is exacerbated by a fear of looking "stupid." As one principal explained, many of his students feel that "it is better to look crazy than stupid"; in class, "crazy" manifested as disruptive or recalcitrant. Students put up a wall to keep the teacher or other students from seeing her or his true talents, worries, and struggles. Central to this fear of looking stupid is a fear of being wrong—a fear of failing. But with PowerPlay, the goal is not to get something right on a test but to find something that excites you and try. PPYE participants are encouraged to treat the process as an extended market test. Failing, in fact, is expected—especially since it is arguably the lifeblood of a successful entrepreneur. It also happens to be essential to developing important life skills like perseverance and patience.

PPYE students spoke about failure from a few different angles. For some, PowerPlay was the first time that they felt comfortable trying. Because nobody in the class had experience being an entrepreneur, the playing field was level. Here, a student who did not fit comfortably into a typical academic setting could feel they had a chance to succeed. This included students from often marginalized groups including differently abled students, students from less well-resourced neighbourhoods, and newcomers.

Before the project I was more likely to give up when things got hard. In English and Math class I'm not that good at reading or doing math. I used to give up a lot in those classes. Now I try to work harder and ask for more help. –Student

For other students—particularly high ability and high achieving students—PowerPlay offers them an opportunity to learn by failing.

Many high achieving and high ability students have been pigeonholed as persons to whom learning comes easy, always gets straight A's, and don't have to work as hard because they are so smart. What adults frequently forget is that this kind of praise often ends up with the young person becoming so self-identified with the idea of ease and perfection that they never develop the habits of mind necessary to deal with setbacks. Always faced with "easy" problems, a student might not learn how to take a complex problem and break it into its constituent parts, how to take notes and articulate process so that you may later review and debug, or how to catch your breath and keep moving when your confidence has been rattled. Facing these sorts

of challenges earlier in life where you have greater availability of teacher and parental support allows students to build the skills necessary to take fuller advantage of their abilities through developing the deeper skill set necessary for bigger challenges.

My favourite moment was when four parents walked up and said you must have worked hard on making those and I said yes I did. —Student

One illustrative story of a student learning by failing is of a young entrepreneur who rapidly discovered at the showcase event that his product was not selling. In fact, he discovered that he really missed the target when trying to find an audience. What he also observed was that one of his classmates had an excellent product and a terrible marketing plan. After the event, the young entrepreneur decided to buy the product idea from his classmate and to then turn it into his own product. He gathered other students that had strengths that complemented his own and moved forward with his next endeavor.

I discovered that I can achieve a lot of things like some things that are going on in my life. Usually I had anger issues. I would get mad easily and go and punch things to kind of cope with it and start arguing with someone. It helped me because it gave me confidence to know that people would want to buy my things. It motivated me and made me want to come to school. —Student

Overall, the program’s impact on students is best marked by how it activates them. A Simon Fraser study found a 26% increase in students’ self confidence in being able to organize and complete a project on their own (see Appendix 2).³ During interviews, a number of students spoke of shifting their attentions away from video gaming and social media to their PowerPlay project and ongoing entrepreneurial activities. One student described how he changed his daily schedule so he could wake up early every morning to “manufacture” (his term) his product. He was hoping to produce thousands of planters by the next showcase and realized that he had to plan ahead.

What do the Teachers Have to Say?

When speaking about the state of their schools and of their students, teachers identified lack of student engagement one of their main challenges. Too many students acted as if school was a place to pass the time until they could escape; many did not see the point of school; some were absent on a regular basis. This narrative thread was especially present in schools with higher populations of students from lower-resourced communities, students with learning differences,

³ Mindset Matters: Encouraging an Entrepreneurial Mindset in K-12 Curriculum. Gemino et al

and students who were recent newcomers to Canada. Teachers also spoke of the pressures to cover a significant amount of material in a limited time and of the challenges of involving all students.

Teachers described a series of initially mixed reactions when they heard that their school was launching PPYE. For some, PowerPlay offered a school-sanctioned opportunity for them to continue a more experiential/project-based approach to teaching. They knew the power of sparking students' curiosity and letting students take more of the lead in the classroom.

At each stage, you can add more to it as you see fit. —Teacher

But for many, PPYE represented an uncomfortably different approach to education. Two teachers in New Brunswick, for instance, told tales of how they typically liked to approach their classroom in a highly planned, highly controlled manner. They had been trained this way and they had felt deeply that—given all of the demands on a teacher to move through the curriculum quickly—they needed to keep “order” in the classroom and move at the designated pace. These teachers characterized themselves as “voluntold” to participate in PowerPlay and they were certain that even if PowerPlay were interesting to the students, the class would just fall further behind schedule. However, they came away from their initial PowerPlay experience having significantly changed their view.

I have VERY high expectations for programs and this one met my goals. The students had real world experience with financial literacy. They were also accountable for their prototypes... The curriculum connections were intense. It connected to math, media, Applied Design Skills and Technology, growth mindset learning, perseverance, the power of yet, social studies, language arts, drama, visual arts, reading and writing. In twenty plus years of teaching I have not had a program foster student success in such a positive light. —Teacher, British Columbia

Working with PPYE, teachers have noticed a few important things:

1. There is such a thing as “organized” chaos. Because the students understood the relevance of and cared about their work, they were more focused.
2. The more “active” classroom offered opportunities for a wider range of students to find their place and participate. This meant that there were fewer students who were lost, bored, or frustrated. In fact, with more students engaged and on task, the number of classroom management issues dwindled and student attendance spiked.

3. Students began identifying things that they needed to learn and skills (both technical and interpersonal) that they needed to develop. This took many forms. Some students, for example, realized they needed to better understand the math behind product pricing. Others saw they needed to learn how to better communicate with others. In all instances, the students started turning to each other and to outside resources. The teacher was there to support but became much more of a guide.
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I had one kid who was barely coming to school, but she is so excited about PowerPlay that she has been here every day. It is getting some of my kids here. For the first half of the year, I never had all my kids here every day, and now I've had five days where I've had all the kids here. –Teacher

4. Students could play to their strengths. One student on the autism spectrum had significant difficulties engaging in the classroom. With PPYE, he found an outlet for his deep interest in video gaming and decided to create a guidebook to help others reach his level of understanding. While he was not able to participate in the marketplace, his classmates filled in and in doing so learned more about what it meant to be on the autism spectrum and what it meant to be a supportive friend.

Having more engaged, less bored students is obviously important, but, what is the tradeoff? One of the main challenges of adding any new program is that schools tend to be much better at adding things than subtracting. As a result, teachers face the challenge of fitting more content into the same amount of time. When asked about PowerPlay's impact on their ability to keep up with mandated learning outcomes, teachers offered the following:

- The students focus and engagement in PowerPlay spilled over into other classroom time. One French Immersion teacher shared that "Even with spending time on PowerPlay, our class is further ahead in the curriculum than we have ever been." A teacher at another school shared that his students were reporting that they had significantly cut and/or eliminated their video game playing because they wanted to be sure to get everything done.
- The communication, collaboration, and distress tolerance skills that students were exercising in PowerPlay meant that they were getting along better, and were thus less disruptive, during the rest of the day.
- Teachers were able to point out to reluctant students that they had just demonstrated the ability to do something they said that they "couldn't" during the PowerPlay cycle. One teacher spoke of a student who insisted that he couldn't write. But when she reminded him that he had earlier written a business plan, he realized, sheepishly, that she was right: he had skill and experience that he did not think he had.
- PPYE offered opportunities for more authentic cross-curricular connections. Students began to see the importance of persuasive writing and of math. Concurrently, teachers

were able to move away from worksheet upon worksheet of math problems that held little relevance to the students. Instead, PowerPlay teachers were able to share with their colleagues real student needs that were directly connected to intended curricular outcomes.

- PPYE was well mapped to Provincial curricular outcomes. Though students were “losing” class time, they were becoming more focused and effective learners.

The fact that they are empowered to bring their own passions and interests to what they're doing is massive. It's the first step of that continuum to project based learning. PPYE is an incredibly powerful tool with this paradigm shift that's going on in education. Traditionally you load information onto students and after a month they are expected to regurgitate it. PowerPlay Young Entrepreneurs is a concrete and solid model of how to shift to Project Based Learning where kids become the drivers of their learning. And that's incredibly powerful for kids. —Teacher

In important ways, for teachers, PowerPlay allowed them to “bend time.” By adding a new activity to an already busy schedule, they found themselves working with more energized, focused, and hungry students. Though PowerPlay reduced the amount of time spent in math class, it appears to have increased the amount of productive time spent on math both in and out of math class. The same could be said for other subject areas.

A Few Words from the Administration

PowerPlay Young Entrepreneurs opens the doors for kids to express themselves in ways that would not be possible in a traditional classroom setting. Students can follow their passions, pursue their dreams, take risks and so much more. It's hands on, experiential learning that I don't think we can do enough of in our schools. —Superintendent

Administrative feedback regarding YE-Can efforts was overwhelmingly positive. Some principals offered that once they started, they had to keep going because the younger students were so excited to soon be old enough to participate. In these schools, PowerPlay and the showcase event became rites of passage—signs of growing up. A number of principals also spoke to how YE-Can programs ticked a number of boxes for changes they hoped to see in their schools:

- Greater student engagement
- Higher levels of attendance—especially among chronically absent
- A more personalized approach to learning—accessible and challenging for newcomers, students with disabilities, etc.
- More community and family engagement

PowerPlay and Students

One principal spoke of YE-Can activities as a place for students to find their voice. In fact, a number of school leaders reported marked changes in students who had previously struggled within the classroom. For some, it was that the students started showing up on a regular basis. For others, it was that the students were better able to navigate the frustrations of middle school. They started working more effectively with their peers and had few classroom management issues. Still for others, it was that students were finally showing up to the classroom not just prepared to learn but eager to learn. The students were pushing for new, relevant content and opportunity that both challenged and inspired their teachers.

I have a student who entered middle school last year as someone who disliked school and did not see much success in school – ever. He thrived in the PowerPlay program and entered his second year of middle school this year excited to be back and seeing success throughout many of his traditional classes...He went from being shy, timid, and eager to avoid school to one of our regular classroom leaders. —Educator

PowerPlay and Teachers

A number of principals described how they were very strategic in choosing their teachers to implement PPYE. Rather than opting for a teacher who tended to have a very student-centered approach, one principal chose a teacher who typically ran a more command-and-control classroom. Her hope was that PowerPlay provided enough structure for the teacher to experience project-based learning without feeling out of control. The principal viewed PowerPlay as an important part of the schools' professional development plan and way to transform the teaching culture of her school.

The value comes from the ease of implementing the program, the ability to have differentiation for those strugglers and the diversity that comes from letting students run with their ideas. —Educator

PowerPlay and the School Community

Principals and District Administration used PowerPlay and other YE-Can programs in a number of ways to more effectively connect their schools to the community. The showcase, for instance, was the first time that a number of families—particularly from marginalized communities—appeared in the school. One principal noted that in the future the school hoped to take fuller advantage of family attendance to also have parent-teacher conferences and important school announcements. For some families, the showcase events humanized the schools. Many adults do not have positive memories of their own school experience and some were deeply traumatized. Some adults, particularly newcomers with limited English and French, may feel uncomfortable. Seeing their own children excited and thriving shifts the nature of the

relationship to the school and centers the school in ways that allow principals work in tandem with families in building a strong school community. PowerPlay also opened up opportunities for schools to reconnect with their alumni as some brought former students back to support PowerPlay extensions.

Families Matter

YE-Can's impact on families takes a number of different forms. One parent told of the joy of her son finally feeling included. He was diagnosed on the autistic spectrum and had often struggled to fit in at school and to fully participate. This was partly due to difficulties interacting with other students and partly due to the structure of school itself. During the lead-up to the showcase, the class chose the various charities that they would donate 10% of their proceeds to upon completion of the event. For some of her son's classmates/friends, this was the first time they really learned about autism and how people on the autistic spectrum might have different strengths and needs. Though her son was not comfortable at the showcase itself, her son was very proud of his product and his classmates gladly handled the sales on his behalf.

People shouldn't be excluded because they have this or that diagnosis or challenge. There are other kids in the school as well that have learning disabilities. His diagnosis does not define who he is. The big message of this program is that it is adaptable and flexible to all learning styles and needs. —PowerPlay Parent

Another parent described watching the process as her child navigated his own uncertainties about his product and his fears about speaking to others. He struggled during the lead up to the showcase event both with finishing his product and with the thought of speaking to so many strangers. His concerns were further exacerbated by getting sick, thus pinching the available time to get things done. She asked to help him and wanted to offer advice. He wanted to do it on his own and she spoke with pride about watching him come out of his shell during the showcase event.

A third parent mentioned how developing the PPYE project brought her daughter closer to her grandfather. She had decided upon a project that necessitated woodworking. Neither the mother nor father had any skills in this regard, so her daughter spent hours alongside her grandfather learning the necessary skills and spending quality time. This story was echoed in a number of other instances, where students worked alongside other family members on weekends or before school to either develop their products or grow their PowerPlay inspired businesses.

Perhaps most importantly, YE-Can connects families to the schools in more positive and productive ways. Many families who had only heard about how their child was disengaged, struggled with the classwork, or was a troublemaker are now seeing their child in a more

positive light. They are hearing the positive feedback from the teachers and feeling the enthusiasm and sense of pride in their children's voices and actions. They are also seeing this carry into core academic classes in ways that help them keep their children more engaged and that help the parents feel more comfortable engaging the schools.

PowerPlay and the Community

It is not often that one speaks to a mayor about a school-based program, but in Miramichi, Mayor Adam Lordon views PowerPlay as an essential component to revitalizing the community. In a community where mill closings and growing concerns with salmon fisheries have removed two of the historic career paths, he recognizes that many students may choose to leave Miramichi when they grow up, but he wants them to have a choice. Working with PowerPlay is part of the nimble thinking he believes is necessary for young people to build their futures while still holding onto "home."

Alongside supporting the PPYE in-school program, the mayor is a big fan of PowerPlay's extracurricular programming related to solving real-world issues in the community. What he's discovered is that PowerPlay students bring creative ideas, previously untapped networks of friends and family, technological skills, and energy to the seemingly intractable issues that face a community in transition. This complements his own Youth Action Committee initiative that provides another venue for young people to weigh in on city issues, plan youth-oriented events, and provide more forward-looking eyes as he and the city council chart the path for the city.

I realized that I have an amazing imagination and I can use it to live a good life. –Student

On the business front, PowerPlay offered opportunities for local businesses to more fully engage with the schools. In some instances, this was as simple as opening up shelf space for student designed and created products. In other instances, local businesses have offered materials and other support—including requesting large orders of customized products such as key chains.

One of the more interesting examples involved the Miramichi Salmon Association (MSA). This local group has a new president and a renewed emphasis on conservation. As part of MSA's efforts, they are in the process of a rebrand to become more relevant to a wider range of people, broaden their influence, and increase their donor base. They are also interested in becoming much more engaged in the schools, particularly science education.

Upon hearing about PowerPlay and learning more about its impact and the quality of the students' work, MSA offered a tender allowing the PowerPlay schools the opportunity to bid on creating "swag" for MSA's international donor base. What followed was extraordinary for both the students and MSA: Students gained another example of applying what they learn in school

to a real-world context and the exciting feeling growing their small business from an idea in a small school market to working with another business of custom designs. If the project develops as intended, MSA will have been able to source locally, tell a story to donors that was far more powerful than the swag itself, connect with the schools, and broaden awareness of the MSA and its conservation efforts.

Additionally, YE-Can brings events to the community. For instance, YE-Can has brought professional speakers to their events that they then open up to the broader community. These speakers take time to engage with and coach the students in advance of the talk. At each event, YE-Can hosts a marketplace where students can showcase and sell their products.

Recommendations

In visiting YE-Can schools in various stages of implementation, it became clear that some are well-positioned to take the program to next levels. In New Brunswick, for instance, the schools benefited from significant District support (including a District-wide support person and a District-wide effort to deepen project-based learning) and proximity to programs such as the ICE Centre (a community college-based program to connect students, industry, and secondary education). Other schools benefit from their connections to community centers that already offer community programs on videography, 3-D printing, and such. What seems consistent throughout is the need to nurture that flame once the students' curiosity, voice, and passion have been sparked. What follows is a list of possible next steps.

For each of the steps below, it is important to carefully weigh the timing and implementation while keeping true to the imperatives that work so well right now: focus on process, embed reflection, and empower student voice. Specifically, with so many young people doing so many interesting individual projects, it can be tricky to balance the process-oriented approach with the natural tendency to highlight a few talented young entrepreneurs (i.e., picking a winner). It is easier to highlight the rock stars; it is not necessarily better. With this in mind, and calling upon steadfast Board support and continually thoughtful leadership, here are a few thoughts:

- Include more guidance for schools in implementing PowerPlay's in-school and out of school programming. These could take the form of short lists to consider or case studies. One school suggested that it would be helpful to know how other schools safely store the money after their sale. They wanted to ensure that the students all had their money on the following day so that they could calculate their profits in a group reflection activity. An administrator highlighted the necessity to consider things like availability of transportation when considering whether to offer after-school extensions of PowerPlay or to just fit the club into the lunch schedule.
- Deepen opportunities for sharing lessons learned among schools, teachers, and students. Some schools have developed informal networks amongst themselves to share tips about things ranging from how to use a laser cutter to how to set up an e-

commerce site, and, with its most recent grant, YE-Can has been able to connect many of the schools to local experts who can help with digital ad creation, web-site design, and other practical skills. It would be great if these lessons learned could be codified and shared through a series of program-connected videos. Perhaps these could be student-created and student-submitted.

- Create and maintain a clearinghouse of information. In addition to the current videos designed to aid teacher development, add materials about some of the more practical matters around implementation:
 - Managing a student loan process when you are in a school where parents are not likely in a position to front the money
 - Addressing concerns about tracking the money (e.g., what should be handled by the office, by a teacher, by students, etc.)
 - Providing guidance on setting up an e-marketplace
 - Assisting the schools in understanding the tax situation. As some of the programs grow, the marketplaces can be generating thousands of dollars

- Consider more regional and national events (as funding allows). These could act along the lines of science fairs which often start at the school level and then move to District, Province, etc.
 - Let local pitch events funnel students to regional and national opportunities. These events could be sponsored and could lead to both funding and product support. Where possible, bring real “angel investors” to the table so that the students are receiving as authentic an experience as possible.
 - Let schools nominate certain PowerPlay projects for next levels events. These could include opportunities to meet with eminent people, earn scholarships, work collaboratively with students from across Canada, etc. Rather than this solely being based on number sold or product creativity, consider having additional categories such as:
 - Inspirational PowerPlay story (e.g., students who overcame adversity or tapped deeply into a community need, classes who rallied around a classmate, etc.)
 - Spectacular fail and what lessons were learned
 - Project that brought people together
 - Social entrepreneurship

- Find more opportunities for older students to mentor younger students. A few schools in New Brunswick are already bringing back high school students or college students who had participated in PowerPlay to help out with the middle school students.

- Build out more high school opportunities. Perhaps connect these to internship programs and/or programs at local universities and community colleges.

- Create a summer, entrepreneur boot-camp to be held on a university campus. This could be themed to focus on social entrepreneurship or in a specific area and could draw students from across Canada. This could either be treated as a next step for students who participated in PPYE in their schools or a chance for those students who attend schools not offering PowerPlay to have their own taste.
- Consider local advisory groups to support YE-Can's efforts to connect student activity to the broader community. There are already instances where local businesspeople have visited a PowerPlay classroom or showcase and have been amazed by the depth of student engagement. Gathering a group might well help map out how to develop deeper mentoring networks and establish local funding streams that could help support more activities in a sustainable manner.

For Immersion teachers, this project was perfect. The kids learned different terms in their second language. All the activities and business plan were in French; it touched every global strand of the Curriculum (Speaking and Listening, Reading and Comprehension and Writing and Representing). During the Market, the kids had to speak and explain their products in their second language to a few customers, which was great for them to see the value of a second language outside of school. –Educator

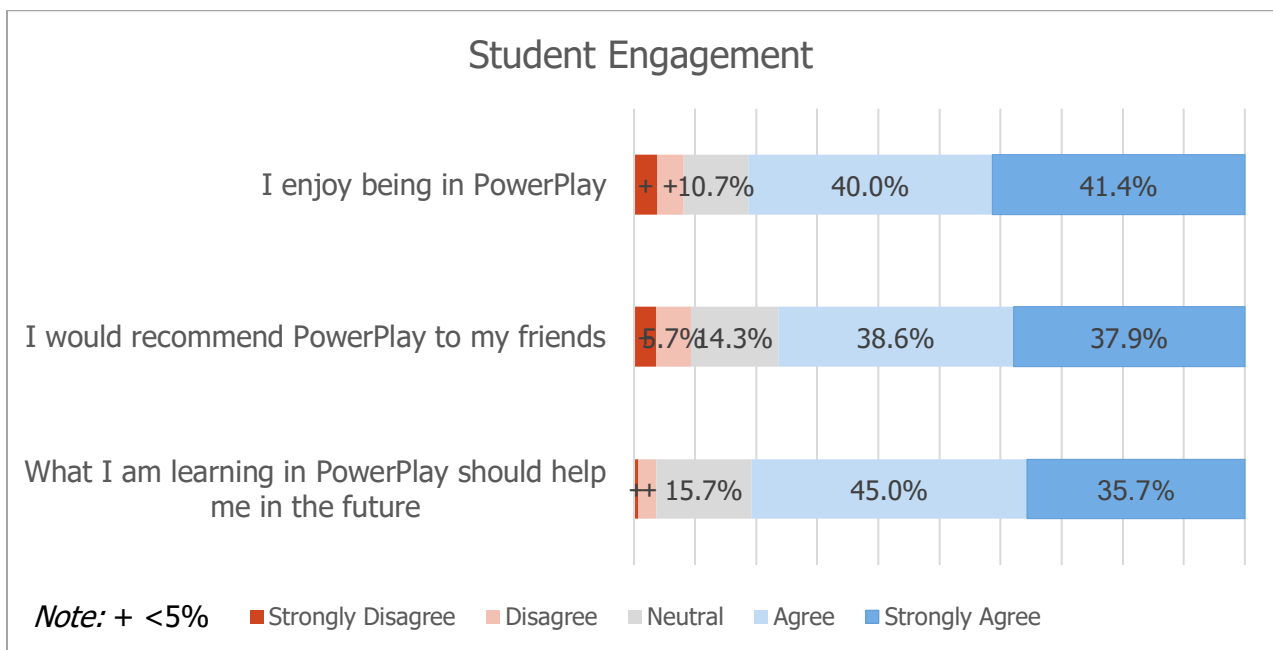
Appendix One: Student Engagement Tables from “The PowerPlay Young Entrepreneurs Program in New Brunswick, Canada: Qualitative Findings on Implementation Progress and Impacts on Students” by the Center for Research and Reform in Education at Johns Hopkins University, 2023.

Student Engagement

Figure 1 illustrates the distributions of student responses to three survey items regarding their engagement in the PowerPlay program.

Figure 1

Student Engagement in PowerPlay



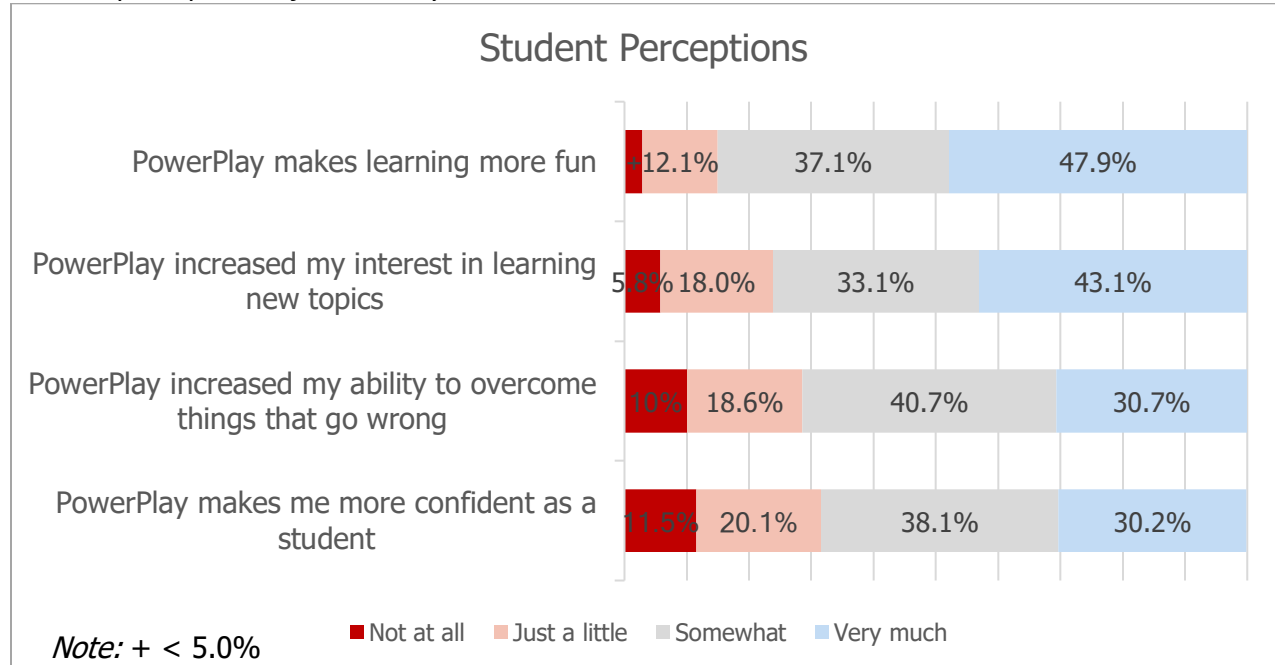
Student responses are combined across schools unless otherwise indicated. Responses to this set of questions were highly positive, with more than three-fourths (81.4%, $n = 114$) agreeing that they enjoyed being in PowerPlay, while 76.5% ($n = 107$) agreed that they would recommend PowerPlay to their friends. Similarly, 80.7% ($n = 113$) of students believed that participating in PowerPlay could have a long-term impact on their future. Responses were similarly positive to these questions from both the northern and southern school districts, however, the order in which students in the south rated these items was slightly different: (1) PowerPlay should help in the future, (2) I enjoy being in PowerPlay, and (3) I would recommend PowerPlay to my friends.

Student Perceptions

The next set of questions asked about student perceptions of their PowerPlay participation; these results are illustrated in Figure 2.

Figure 2

Student perceptions of PowerPlay



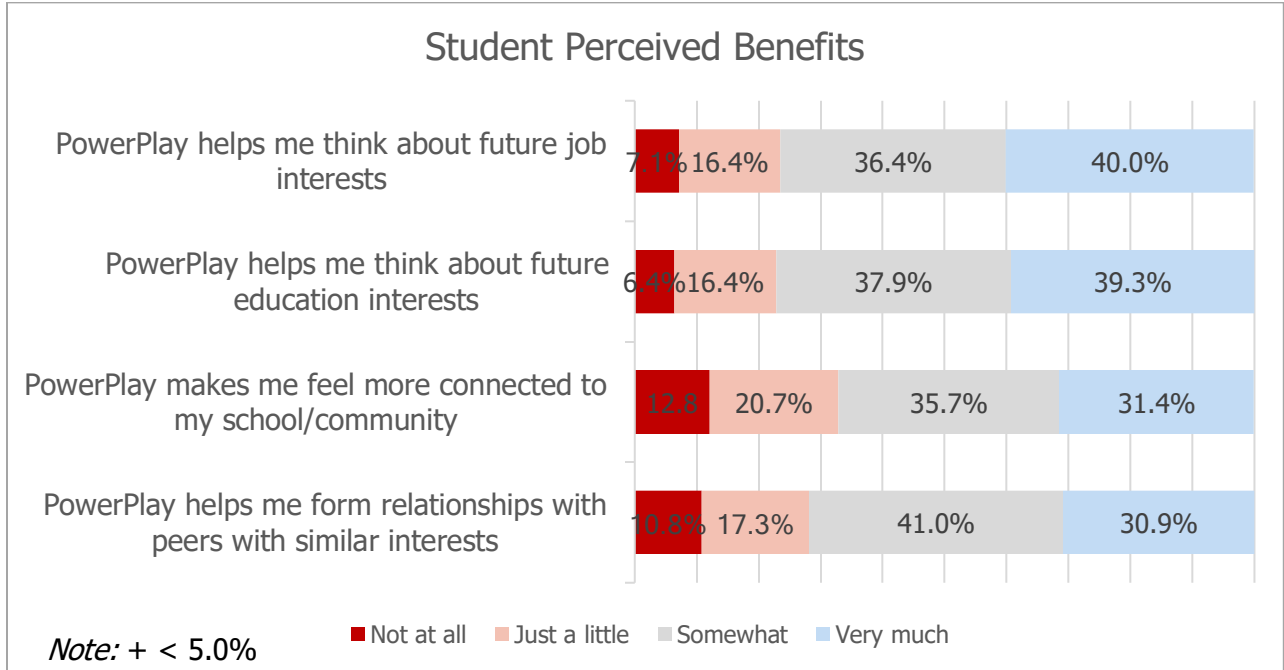
Student perceptions of PowerPlay were once again highly positive, as 85% ($n = 119$) “somewhat” or “very much” found that PowerPlay made learning more fun, while increasing their interest in learning new topics (76.2%, $n = 106$). Slightly fewer, but still close to three-fourths of students (71.4%, $n = 100$) found that PowerPlay increased their ability to overcome problems. Notably, in extending the influences of PPYE outside the program, over two-thirds (68.3%, $n = 97$) reported an increase in their confidence as a student. The ratings were similar between north and south students, with the exception of the last two items being reversed in terms of ranking by students in the south.

Student Perceived Benefits

The final set of questions asked students about their perceived benefits to participating in PowerPlay as it relates to their future, strengthening bonds with their peers, and feeling more connected to their school and community. These results are depicted in Figure 3.

Figure 3

Student perceived benefits of PowerPlay



Appendix 2: Ratings of Entrepreneurial Skills Table from “Mindset Matters: Encouraging and Entrepreneurial Mindset in K-12 Education” by Gemino et al, Simon Fraser University.

Table 1: Ratings of Entrepreneurial Skills Before and After PYE Program

	Timing	Average Score*	Before/After Difference	% Change	Statistical Significance
Creating a business plan to show my research, product cost, profit, & marketing.	Before:	4.86	+2.88	59%	Highly Significant (p=0.000)
	After:	7.75			
Selling something to other people	Before:	5.02	+2.69	53%	Highly Significant (p=0.000)
	After:	7.71			
Communicating with people I know or I don't know	Before:	5.72	+2.21	38%	Highly Significant (p=0.000)
	After:	7.93			
Overcoming the fear of rejection	Before:	5.76	+2.10	36%	Highly Significant (p=0.000)
	After:	7.86			
Thinking creatively & coming up with new ideas	Before:	5.91	+1.95	33%	Highly Significant (p=0.000)
	After:	7.85			
Turning ideas into action – getting my ideas 'done'	Before:	5.78	+1.90	33%	Highly Significant (p=0.000)
	After:	7.58			
Being aware of what I can do to support charity & doing it	Before:	6.27	+1.95	31%	Highly Significant (p=0.000)
	After:	8.14			
Recognizing problems and solving them	Before:	6.00	+1.73	29%	Highly Significant (p=0.000)
	After:	7.73			
Trying something new	Before:	6.23	+1.77	28%	Highly Significant (p=0.000)
	After:	8.01			
Organizing & completing a project on my own	Before:	6.33	+1.66	26%	Highly Significant (p=0.000)
	After:	7.99			

* all ratings measured on a 10-point