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# Mindset Matters: Encouraging an Entrepreneurial Mindset in K-12 Curriculum

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# Abstract

It is widely believed that empowering young people with an entrepreneurial mindset is the key to developing more entrepreneurial behaviour and preparing youth to flourish in our emerging economy. However, little data exists to show if entrepreneurial education actually leads to a more entrepreneurial mindset. This study examines the impact of PowerPlay Young Entrepreneurs (PYE), a 6-week educational program offered to students from grades 4 through 8. The program, offered by a Canadian not-for-profit organization, incorporates project-based, experiential learning that fully aligns with best practice in K-12 education. The data for empirical analysis is provided by two student surveys totaling 2453 student participants and an educator survey of 44 teachers in the Surrey and Langley school districts in British Columbia, Canada. Results from the teacher survey indicate strong support for PYE among educators, who appreciate the program's ease of use and value in terms of student engagement. Student survey results indicate the PYE program generates an 11% increase in reported levels of growth mindset in students and significantly increases entrepreneurial skills and capacities. A structural equation analysis also shows that the key to encouraging entrepreneurial behaviour is developing a student's entrepreneurial mindset. The mindset has 2.5 to 3 times more impact on entrepreneurial behaviour than relevant skills or supportive parental/peer attitudes. While these latter elements are helpful, the true driving force for entrepreneurial behaviour is the mindset that students develop towards entrepreneurship through the learning process. This study demonstrates that when encouraging entrepreneurship, mindset matters.

# Introduction: The Importance of an Entrepreneurial Mindset

A recent study led by an independent research group, the Institute for the Future (ITF), has predicted that 85% of jobs that will exist in 2030 have not been invented yet<sup>1</sup>. Disruptive technologies are radically changing the way we work and many of today's jobs will be transformed over the next decade. Businesses will become leaner and more agile, depending more and more on freelancers who come together for short-term projects. Workers will have a variety of different positions throughout their careers, many of which they have not been trained for. It is nearly impossible to accurately identify the specific job-related skills that will be most needed in the coming decades; however, we do know something about the general skills, mindset and behaviours related to entrepreneurship.

The economic arguments for increased entrepreneurial education arise from the need for advanced **skill development**. Employers are increasingly demanding that people have the ability to recognize and take advantage of new opportunities. The World Economic Forum suggests complex problem solving, critical thinking and creativity will be the top skills needed in 2020<sup>2</sup>. As traditional jobs become harder to find, these entrepreneurial skills are emerging as standard for creating economic opportunities.

Looking further ahead, the ITF study concluded that in 2030 entrepreneurial traits such as vision, perseverance, creative problem-solving and learning agility will be critical for all workers to employ<sup>3</sup>. To keep pace with emerging technologies and evolving skill sets, people will need to be flexible and adaptable, and be committed to continuous growth and development. Whether they work for themselves or others, they will need an '**entrepreneurial mindset**', which can be defined as "*a growth-oriented perspective through which individuals promote flexibility, creativity, continuous innovation, and renewal*" (Ireland et al., 2003 pg. 968)<sup>4</sup>.

It can be argued that an entrepreneurial mindset also leads to greater psychological well-being. The term is closely linked to the concept of growth mindset, an increasingly influential concept in education. In her book "*Mindset: The New Psychology of Success*", Stanford University psychologist Dr. Carol Dweck theorizes that people can be characterized as having one of two mindsets—a fixed mindset or a growth mindset. Students with a fixed mindset think they're 'dumb' or 'smart' in certain areas (like math, music or sports) and there is no way to change this. Students with a growth mindset believe they can build their skills with work and effort. Dweck's research has shown that students' beliefs about their intelligence play an important role in achievement at school and engagement in their lifelong education. Students with a higher growth mindset are happier and achieve more. It then follows that an entrepreneurial mindset can also lead to happier and more productive people.

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1 See Institute for the Future report, [https://www.delltechnologies.com/content/dam/delltechnologies/assets/perspectives/2030/pdf/SR1940\\_IFTFforDellTechnologies\\_Human-Machine\\_070517\\_readerhigh-res.pdf](https://www.delltechnologies.com/content/dam/delltechnologies/assets/perspectives/2030/pdf/SR1940_IFTFforDellTechnologies_Human-Machine_070517_readerhigh-res.pdf)

2 See World Economic Forum report, [http://www3.weforum.org/docs/WEF\\_Future\\_of\\_Jobs.pdf](http://www3.weforum.org/docs/WEF_Future_of_Jobs.pdf)

3 See Institute for the Future report, [https://www.delltechnologies.com/content/dam/delltechnologies/assets/perspectives/2030/pdf/SR1940\\_IFTFforDellTechnologies\\_Human-Machine\\_070517\\_readerhigh-res.pdf](https://www.delltechnologies.com/content/dam/delltechnologies/assets/perspectives/2030/pdf/SR1940_IFTFforDellTechnologies_Human-Machine_070517_readerhigh-res.pdf)

4 Ireland, R., Hitt, M., and Sirmon, D. (2003) "A Model of Strategic Entrepreneurship: The Construct and its Dimensions" *Journal of Management*. Vol 29. Pg. 963

# Why Start Early with Entrepreneurial Education

According to the BC Ministry of Education's 2015/16 Satisfaction Survey, an annual province-wide census, only 23% of grade 12 students in British Columbia reported that they felt school was preparing them for a job in the future<sup>5</sup>. Many educational researchers, including Ken Robinson<sup>6</sup>, have noted that creative thinking and problem-based learning are natural abilities that are often driven out of students due to educational approaches that prioritize rote memorization, standardized testing and traditional academic subjects over more creative and subjective endeavours. The writers of this paper, all educators, have consistently noticed that students entering senior high school and first-year post-secondary business programs tend to lack adaptability and creativity, while elementary and middle school students display more openness and imagination. A considerable amount of time can be required to educate these young adults to tap into their natural imaginations, to be more flexible and take risks. Teaching and supporting these mindsets and behaviours from an early age should logically lead to higher levels of an entrepreneurial mindset, which would help push post-secondary level student outcomes to an even higher level.

School is where many people develop their **intentions** about their future careers through exposure to a variety of possibilities. While future behaviours can be hard to observe due to time lag or the unpredictability of circumstances, research on intention models has shown that entrepreneurial intentions can be a powerful predictor of future behaviours<sup>7</sup>.

Like strengthening a muscle, developing an entrepreneurial mindset and building related skills is an iterative process, requiring time, practice and repetition. In his comprehensive overview of entrepreneurship in education, Martin Lackéus recommends a progression model that builds from year to year, with entrepreneurship embedded into the curriculum as early as preschool and primary school<sup>8</sup>. The idea is that the continuum of learning helps students hone their entrepreneurial competencies over time. This leads to the question:

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5 See BC Ministry of Education 2015/16 Satisfaction Survey, [http://www.bced.gov.bc.ca/reports/pdfs/sat\\_survey/public.pdf](http://www.bced.gov.bc.ca/reports/pdfs/sat_survey/public.pdf)

6 From Robinson K. **Out of our minds: Learning to be creative.** John Wiley & Sons; 2011.

7 Krueger Jr, N. F., Reilly, M. D., & Carsrud, A. L. (2000). Competing models of entrepreneurial intentions. *Journal of business venturing*, 15(5-6), 411-432.

8 See OECD report by Martin Lackéus, [https://www.oecd.org/cfe/leed/BGP\\_Entrepreneurship-in-Education.pdf](https://www.oecd.org/cfe/leed/BGP_Entrepreneurship-in-Education.pdf)

# Does Early Entrepreneurial Education Increase Entrepreneurial Mindset?

Many people question whether entrepreneurial skills and mindset can be taught effectively in the early years, or even at all. Some question whether “business” oriented topics such as entrepreneurship should even be taught in classrooms. As a concept, entrepreneurship is itself evolving. Rather than being viewed as a purely business-oriented role focused on maximizing profit with little respect for people or planet, entrepreneurship has also been increasingly seen as an approach to finding solutions to key issues and a distinctive way of looking at the world through the eyes of opportunity <sup>9</sup>. Entrepreneurship is being recognized as important for success in all areas of life because it is a pathway that enables people to address real-world challenges, seek opportunities and find new ways to create value. With 2017 employment statistics suggesting that almost 100% of Canadian job growth last year was focused on self-employment, there is a growing obligation to educate young Canadians and provide them with the tools they need to be successful in an increasingly freelance economy <sup>10</sup>.

But can education actually support the development of entrepreneurial ability? Some believe that entrepreneurship is a rare “gift” provided to a few exceptional individuals who are “naturals”. While some people may be more predisposed to these mindsets and behaviours than others, this does not imply that entrepreneurial competencies cannot be taught. Many education/policy experts have already recognized that preparing today’s students for the future requires a shift in pedagogical approach from teaching what an entrepreneur is to creating the conditions to experience learning from failure and other things an entrepreneur *does* <sup>11</sup>. For example, the redesigned curriculum in British Columbia makes education more relevant to the new economy and enables teachers to personalize learning, using experiential and project-based methods <sup>12</sup>. These techniques cater to a variety of diverse learning styles and embed learning within the context of meaningful real-world activities.

However, despite this progressive trend in education, much remains to be done. Changes in curriculum have been implemented sporadically, affecting some schools but skipping over others. Educators are expected to use new methods and teach unfamiliar content, but often receive inadequate supports. There is also a lack of consensus around what is meant by an effective entrepreneurship program; templates vary widely from extra-curricular classes and summer camps to classroom projects that range from creating individual business plans for hypothetical businesses to pitching business concepts to a group of judges.

This study focused on one such program: PowerPlay Young Entrepreneurs (PYE). A fundamental principle underlying the PYE program is that an entrepreneurial mindset and toolkit of skills can be developed for all students by immersing them in a rigorous real-world project where they take responsibility for launching their own businesses. An overview of the program and the analysis of results thus far based on an entrepreneurial skillset and mindset is provided below.

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<sup>9</sup> See Tracey and Phillips (2007)

<sup>10</sup> See TD Observation report, [https://www.td.com/document/PDF/economics/special/Part\\_Time\\_Conundrum.pdf](https://www.td.com/document/PDF/economics/special/Part_Time_Conundrum.pdf)

<sup>11</sup> Tracey and Phillips (2007)

<sup>12</sup> See BC Curriculum Orientation Guide, [https://curriculum.gov.bc.ca/sites/curriculum.gov.bc.ca/files/Curriculum\\_Brochure.pdf](https://curriculum.gov.bc.ca/sites/curriculum.gov.bc.ca/files/Curriculum_Brochure.pdf)

# PowerPlay Young Entrepreneurs: An Overview

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.

## Real-World Learning

Students in the PYE program create business plans, design products and marketing materials, and then showcase their achievements and sell their products at a dynamic event called the Young Entrepreneur Show.

The program introduces students to designing customer-driven products. They start out by conceptualizing product ideas and then make prototypes, complete market research and solicit feedback from others before finalizing their designs and making their products.

Students move through the business planning process, which takes them through considerations about customer feedback, profitability, and other pieces of a business model. They often get loans, typically from their parents, and make their own financial decisions. They are also challenged to donate a portion of their earnings to a charity of their choice. This stimulates interest in important social issues and reinforces the message that everyone has an active role to play in the community.

## Highly Engaging Techniques

The program encourages students to take charge of their learning, with teachers acting as facilitators offering support and guidance. Students are empowered to make their own decisions and are free to make mistakes and take risks. They also play an active role in assessment and use it to enhance their successes as they move through the business planning process.

Teachers use skill-building “games” and hands-on activities to encourage students through the business planning steps. The students are challenged to develop core competencies such as creativity, critical thinking and communications skills as they work towards their goals. This active learning approach helps students gain confidence in their current competencies and acquire new skills as required, a defining characteristic of entrepreneurs.

The process of taking their business from concept to reality in a community environment teaches young people of all abilities to set goals, organize, problem solve, focus, act independently and work as a team. The flexible learning model and extension activities make it relatively easy for teachers to adapt and personalize content and to pace the learning to individual needs.

## Reflection

At the end of the project, students reflect on their experiences and evaluate how they can build on their successes in the future, a crucial step to help them become more self-aware.

The goal of the program is to prepare young people to have more fulfilling lives and contribute to society in meaningful ways. By making explicit connections between their success in developing a business project and their ability to pursue other personal goals, students develop

confidence and positive beliefs about their abilities. They are not only introduced to entrepreneurship as a career option, but also develop entrepreneurial skills and a mindset that is critical for success in a rapidly changing world, whether they create their own jobs or contribute to existing organizations.

## Student Survey Results

To better understand the impact of the PYE program, two surveys were administered: 1257 elementary school students enrolled in the PYE program in 2016/17 in the Surrey school district and a further 1196 students in 2017/18 in the Surrey and Langley school districts. The survey focused on entrepreneurial skill development, growth mindset and factors influencing entrepreneurial behaviour.

### Entrepreneurial Skill Development

Ten entrepreneurial skills were identified that could be affected by the PYE program. These skills included *“Thinking creatively & coming up with new ideas”*, *“Turning ideas into action – getting my ideas done”* and *“Recognizing problems and solving them”*. All of the questions are listed in Table 1 along with the before and after average ratings. These ratings are based on a 10-point scale with 1 being “a beginner” and 10 being “great at this”. The difference between the before and after rating was used to calculate the percentage change between skills before and after the PYE program.

The list of entrepreneurial skills used in this study resembles the global competencies promoted by the Council of Ministers of Education in Canada (CMEC)<sup>13</sup>. Table 1 provides average scores on a 10-point scale of the ratings of skills before and after the PYE program. All skills ratings were rated higher after the program than before and all changes were strongly statistically significant. The percentage increase in skill ratings after PYE ranged from 26% for *“Organizing and completing a project”* to 59% for *“Creating a business plan to show my research, product cost, profit, & marketing”*.

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13 The CMEC has identified the following six key competencies as “equipping learners with the necessary tools to adapt to diverse situations and become lifelong learners”: critical thinking and problem solving; innovation, creativity and entrepreneurship; learning to learn/self-awareness and self-direction; collaboration; communication and global citizenship and sustainability. See CMEC report, [https://www.cmec.ca/682/Global\\_Compencies.html](https://www.cmec.ca/682/Global_Compencies.html)

**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

## Increase in Growth Mindset after PYE

To measure the effect of the PowerPlay Young Entrepreneurs program on the students' level of growth mindset, a survey was designed to estimate a student's growth mindset before and after the PYE program. The students were asked a set of eight standard questions. Responses were coded and then a level of growth mindset for each student was calculated. This process follows the survey methods established by Dweck.

The questions on mindset included considerations of intelligence, learning goals and effort beliefs. Questions around intelligence ask students their level of agreement with statements such as *"You have a certain amount of intelligence, and you really can't do much to change it"*, or conversely *"You can always greatly change how intelligent you are"*. The first statement suggests intelligence is a known quantity where the second statement suggests intelligence is incremental. Questions about learning goals were taken from the Patterns of Adaptive Learning Survey (Midgley et. al, 1998) and consider learning motivation such as: *"An important reason why I do my school work is because I like to learn new things"* and that motivation continues even when the learning is not easy: *"I like school work best when it makes me think hard"*. In regard to effort beliefs, students were asked their level of agreement with statement that effort leads to positive outcomes such as *"The harder you work at something, the better you will be at it"*.

Results from a survey of 1196 students from Surrey and Langley School districts showed that students demonstrated an 11% increase in the level of growth mindset in the scores after PYE. The average score before the program was 26.6 on a 42-point scale and the average after PYE was 29.5, which is statistically significant ( $p=.000$ ). The study results demonstrate the positive effect that a challenging experiential entrepreneurship program like PYE can have on increasing growth mindset.

The Young Entrepreneur Show is a critical factor in the success of the PYE program and likely has the most effect on the entrepreneurial mindset. This showcase takes place in the school gym with parents and students invited to attend. The Young Entrepreneur Show demonstrates community support for entrepreneurship and provides a real-world opportunity for students to sell their products and receive public feedback. The impact of this event is evident in the quotes the students provided about what they learned from the program.

- *"Setting up my stand made all my hard work come together."*
- *"It brought out a new creative side of me that I thought never existed."*
- *"I can talk to people convincingly and don't have to be scared of what they think."*
- *"My favourite part was earning money, because I know I earned it myself."*
- *"I felt older and like I had a say in something."*
- *"I was proud of myself for doing it on my own."*
- *"If I put hard work into something I can become very successful."*
- *"I became more confident; I can do something cool."*
- *"Even though business is stressful, I like it."*
- *"I got to make some money and it inspired me to do tons of things."*
- *"I should always try new things and believe in myself."*
- *"I can break out of my comfort zone really easily when I have a goal I want to accomplish."*
- *"I want to actually start my own business."*
- *"I could be an amazing business person when I grow up."*

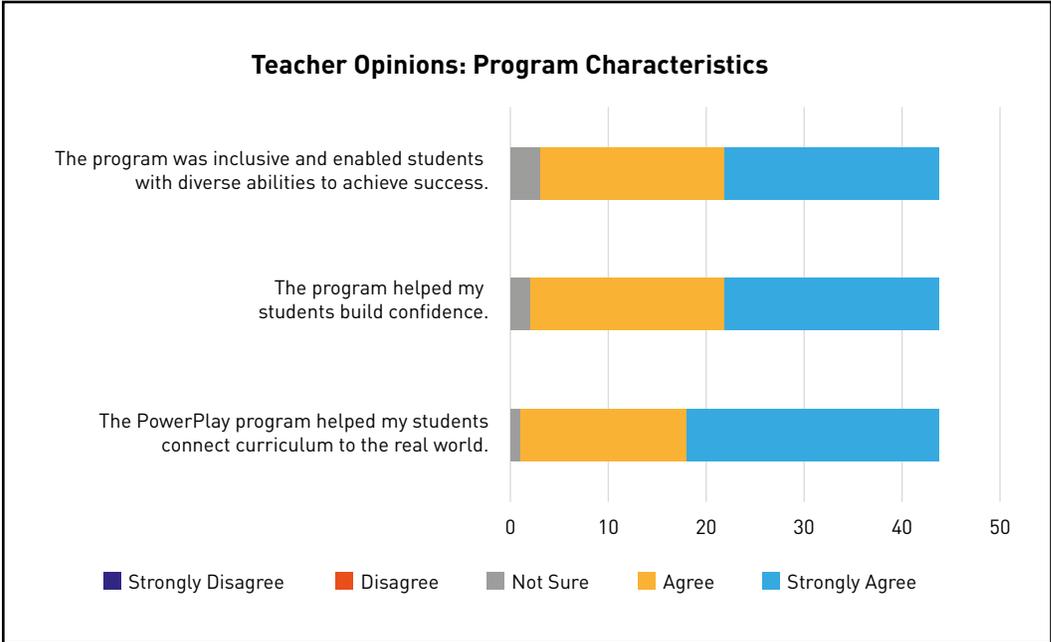
# Educator Survey Results: What Teachers Thought

PowerPlay Young Entrepreneurs integrates with provincial curriculum and provides support for teachers in their classrooms. The educators are key to the program’s success and their opinions are important. An additional survey of 44 educators who facilitated the program in 2017 examined the factors influencing teacher adoption (ease of use, value and impact).

## Effectiveness of the Program

One of the important elements of PYE is that the program is designed to motivate learners who are not always fully engaged in the classroom. The survey results suggested that 94% of teachers surveyed either agreed or very strongly agreed that the program was inclusive and enabled students with diverse abilities to achieve success. Similarly, 96% of the teachers surveyed either agreed or very strongly agreed that the program helped to build confidence and 98% of teachers also either agreed or very strongly agreed that the program helped students to connect curriculum to the real world. These results suggest strong support for the program. 95% of the teachers surveyed indicated that they would use PYE again in their classrooms.

Figure 1: Effectiveness of Program - Results from 2017 Teacher Survey



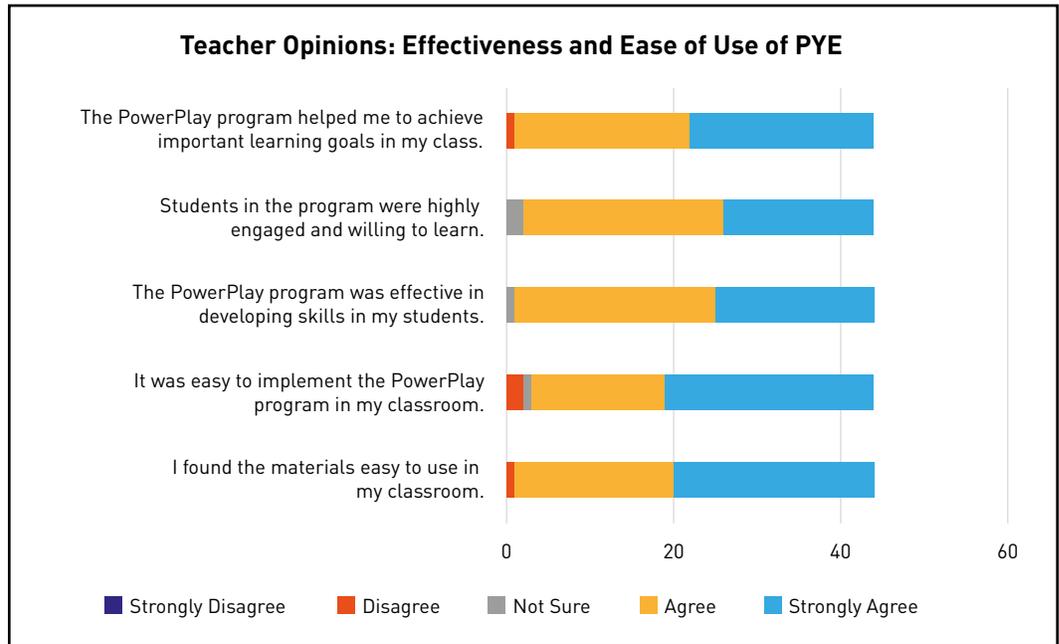
The teachers also shared anecdotes about their students who had participated in the program, identifying what elements were most impactful. Some of the quotes are provided below.

- *"The best part of having this program in my classroom was watching my students grow into actual entrepreneurs."*
- *"Students discovered their own potential to work independently."*
- *"It was the first time this year that parents became involved in their child's learning."*
- *"I am so impressed with how my students were able to put it all together! The enthusiasm and 'buzz' from the entire school leading up to the fair was amazing."*
- *"The most valuable part of the program is building their confidence as they start with a germ of an idea and end up by interacting with many real customers selling a product that they developed and made themselves."*
- *"It just goes to show that when students have a say in their learning and are given the opportunity to follow their interests and passions, there is no stopping them!"*
- *"Fully integrated, real-world skills in a highly engaging unit!"*
- *"It allowed me to include diverse learning styles. As a result, more of my students were engaged and felt successful."*
- *"It was great to see the kids that usually do no homework so incredibly excited for this program."*
- *"One of my students with severe anxiety rose to the occasion and created a product that he was able to market well at the show and sell out of (paper bag puppets)."*
- *"They loved every aspect of the program. It was great to see my 'not so academic students' do an amazing job."*
- *"One of my struggling students with many difficulties with attendance who usually gets to school everyday at 11, was up and ready to sell first thing in the morning!"*
- *"We have a highly anxious student who finds even speaking to people debilitating...While her anxiety overpowered her eventually, she managed to spend over 2 hours interacting with customers. I am so incredibly proud of her and it was the structure and inspiration of the PYE program that gave her access to this growth."*

## Ease of Use of the Program

Another element of a successful program is the readiness with which teachers can adopt it into their classrooms. Complex classrooms, demanding schedules and teacher comfort level with the subject of entrepreneurship are just some of the issues that influence teacher adoption with this type of resource. As shown in Figure 2, 94% of the teachers either agreed or strongly agreed that PowerPlay Young Entrepreneurs was easy to implement and easy to use. Over 98% of the teachers indicated that the program helped to achieve important learning goals and was effective in developing skills. All of these results point to the ease of use and effectiveness of the PYE program.

**Figure 2: Ease of Use and Effect of PYE - Results from 2017 Teacher Survey**



The teachers also shared their opinions and observations about the ease of implementing the program and the fit with their educational goals. Some of the quotes are provided below.

- *"It was an easy program to run and facilitate in the classroom. It covers lots of curriculum, especially new subjects and integrates easily. It's achievable for all students of various abilities."*
- *"This program ties in PERFECTLY with the new curriculum and the core competencies."*
- *"Each student could excel at something and work on areas that needed improvement."*
- *"It checked off most of what I had to teach them this term."*
- *"I never would have taken on a project like this without the resources. It was so clear to follow and because of that, it was easy to adapt for all students (students with disabilities, students with no English, etc.)."*
- *"It is highly valuable to me to have a ready-made unit that incorporates real-world learning. Most of the time I have to create my own units. The PYE program gave me the chance to spend all my time working with the kids instead of worrying about the program! Priceless."*
- *"From documenting a loan, to playing the Price Game, to students counting their profit and doing the final calculations, they were constantly engaged in "real-life" math."*

# How the PYE Program Influences Entrepreneurial Behaviour

The study also considered factors influencing growth mindset and entrepreneurial behaviour. In psychology, intention models have proven to be simple, highly-generalizable frameworks for understanding the motivation for people's behaviour. Entrepreneurial intent/behaviour was measured using responses to two questions: *"A career as a business owner is attractive to me"* and *"I want to start a business of my own someday"*. Three factors have been found to influence entrepreneurial intention: 1) a person's entrepreneurial mindset; 2) the support for entrepreneurship from parents and peers and 3) the person's level of entrepreneurial skills <sup>14</sup>.

A partial least squares (PLS) method was used to estimate the relative effect of the three factors on entrepreneurial intent/behaviour. The results show a strongly significant relationship between each of the factors and the entrepreneurial intent. The factor with the largest impact was the individual entrepreneurial mindset (0.52) followed by parent and peer attitudes (0.20) and entrepreneurial skills (0.161). The relative importance of these factors is critical to understand. The survey results suggest entrepreneurial mindset is almost 2.5 times more influential than family and peer attitudes and more than 3 times more important than entrepreneurial skills in influencing entrepreneurial behaviour. These ratios were consistent with the Krueger et al. (2000) research, adding validity to this study.

What this means is that programs intending to help students to act entrepreneurially in the future need to influence their **entrepreneurial mindset** and confidence to explore entrepreneurship by giving them the opportunity to try it in a realistic setting. Teaching entrepreneurial skills alone or providing a supportive environment and network will not change behaviour nearly as much as doing these things while helping students develop a positive entrepreneurial mindset. Based on the above, creating conditions to employ and strengthen the entrepreneurial mindset appears to be the strongest way to generate entrepreneurial intent and thus unlock entrepreneurial behaviour.

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<sup>14</sup> These 3 factors are present, for example, in the Theory of Planned Behavior. (Ref). Ajzen, I. (2011) The theory of planned behaviour: Reactions and reflections, *Psychology & Health*, 26:9, 1113-1127.

# Summary

Based on the results of this study, the PowerPlay Young Entrepreneurs program is successful in shifting students' entrepreneurial mindset. It does this because it not only teaches them the skills to manage a business and involves their family members in a positive support role, but it also creates a positive image about the entrepreneurial process by creating tangible value that the students are able to see. If success is measured in increased entrepreneurial intention/behaviour, it is clear the PYE program has a positive impact. Showing students that they can be entrepreneurs by providing them with the conceptual tools they need, providing a supportive community environment to do it in and then setting them free to develop value and launch their own business ventures in the manner employed by PYE seems to be a highly effective way to develop an entrepreneurial mindset.

This supports the premise that nothing convinces as powerfully as lived experience. With their teacher in the background to support and guide as needed, students are free to do all the things that entrepreneurs do, within the context of a real-world small business. By helping students to generate product ideas, make their own choices, get messy, solve problems, fail and succeed and work hard, students appear to grow more confident. The ability to display and market their products to their community in an entrepreneurial showcase, appears to be key in driving the learning home. The feedback shows that they discover they are capable of far more than they thought they were and this enables them to adopt a mindset that will continue past the program.

If we are committed to preparing students to thrive in an emerging economy, then developing an entrepreneurial mindset should be a key element of their education. While educational subjects such as science and technology are given prominence in many conversations about career preparedness, placing entrepreneurship education on an equal footing could be very strategic. As the results indicate, with the right approach, entrepreneurship education can have a profound impact on the mindset of youth, building their confidence, self-efficacy, and adaptability to compete and thrive in the economy of the future. That's why an entrepreneurial mindset is so fundamental and why, in a changing world with emerging opportunities, mindset matters.

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