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From STEM to Startup: Empowering High School Youth with Entrepreneurial Skills through the TYE program

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Before working with TiE Boston, Adam taught Literature and Social Studies as part of International Baccalaureate program in international schools in Egypt and China. He later served as the Academic Director of Daluojiepai, a private academy in Beijing, China.

Adam founded his own non-profit Cause & Affect Foundation in 2009, and has been delivering humanitarian assistance on 4 continents ever since, with current programs focusing on Ethiopia, Myanmar and Guatemala.

Adam's previous publications include San Fransisco Chronicle, Edutopia, The International Educator and Journal of Research in International Education (UK). He has spoken at several international conventions, such as the Qatar Leadership Conference, CEESA Conference, NESA Conference. He was also Keynote Speaker at Bill Clinton's School of Public Service, Valparaiso University and the Phi Beta Kappa Convention.

From STEM to Startup: Empowering High School Youth with Entrepreneurial Skills through the TYE program

Abstract

STEM fields rely heavily on innovation to solve complex problems and create new technologies. Entrepreneurship education nurtures students' ability to think creatively, identify opportunities, and develop innovative solutions, making them better equipped to tackle the challenges they will encounter in their engineering and STEM careers. It prepares them for future success by fostering innovation, building essential skills, promoting financial literacy, encouraging leadership, and addressing socioeconomic disparities.

The success of entrepreneurship in education has predominantly been examined through economic lenses such as increases in earnings or jobs created at the higher education level. In this paper, we report on the remarkable success of the TYE program and its empowerment of high school students through extracurricular entrepreneurship education outside the school system. The TYE (TiE Young Entrepreneurs) program was set up in 2005 in Boston and scaled to 30 different locales globally. Our paper will focus on how students in the age group of 16-18 yrs perceived this program and the reported positive outcomes it had for their future education and career prospects.

The TYE program is administered over eight months duration, through a combination of practical training, curriculum, and mentoring, by practitioners who are seasoned entrepreneurs. The program gives high school students the opportunity to form teams, build a real start-up, deliver a Pitch Deck with a Business Model Canvas and Business Plan Summary, as well as the opportunity to win seed funding for their startup. In our paper, we explore the impact of the TYE program, measured through pre and post program surveys. In addition, we develop a descriptive analysis of our findings.

Entrepreneurship education provides high school students with a diverse set of transferable skills that are essential for success in STEM fields. These include team work, problem-solving, confidence, collaboration, and technical skills such as financial literacy, communication, and leadership. Engineering projects require funding and budget management skills, and learning financial literacy, budgeting, fund raising, and investing, provide essential skills for project management. Entrepreneurship education empowers high school students to take initiative, pursue their ideas, and become leaders in their chosen fields. This mindset is particularly valuable in engineering and STEM professions, where individuals often need to take charge of projects, lead teams, and drive innovation.

In conclusion, the paper demonstrates that with the TYE supported entrepreneurial education and training, students report outcomes including their being influenced to pursue a career in STEM and/or start their own company. In addition, the companies the students sought to start were focused on value creation for other people. With engagement with a program such as TYE, high school students choosing the engineering field in college can apply their technical knowledge to develop practical solutions to societal challenges, create prototypes, and test their ideas in real-world settings, thus preparing them for careers where they can make a tangible impact, before they get to college itself.

Keywords: Entrepreneurship, STEM, Education, Innovation, TiE Young Entrepreneurs

Introduction

Entrepreneurship education is essential for preparing Science, Technology, Engineering and Mathematics (STEM) and engineering students for future success by enhancing their ability to think creatively, identify opportunities, and develop innovative solutions. This education equips students with essential skills to address challenges they may encounter in their careers (Mwasalwiba, 2012)[1]. Research has shown that entrepreneurship education influences students' motivations to engage in entrepreneurial activities (Wu & Mao, 2020)[2]. By fostering innovation and creativity, entrepreneurship education enhances students' problem-solving skills and encourages leadership qualities (Ganefri et al., 2017)[3]. One study conducted in the United Arab Emirates emphasized the importance of integrating entrepreneurial practices into STEM education to enhance students' entrepreneurial activities (Eltanahy et al., 2020)[4]. This highlights the recognition of entrepreneurship education as a valuable tool in preparing students for their future careers in STEM fields. Moreover, it addresses socioeconomic disparities by providing students with the knowledge and tools to navigate financial literacy and contribute to economic development (Nafukho & Muyia, 2010)[5].

Integrating entrepreneurship education into STEM curricula has been recognized as a way to improve STEM education and enhance students' interest and achievement in these fields (Kelley & Knowles, 2016)[6]. By incorporating entrepreneurship principles, students are encouraged to apply their STEM knowledge to real-world problems, fostering a deeper understanding of the subjects (Stohlmann et al., 2012)[7]. This integration not only enhances students' academic performance but also promotes their entrepreneurial mindset and skills (Benek & Akçay, 2022)[8]. Additionally, a study by Zhang et al.(2013)[9] reviewed empirical research on entrepreneurship education and identified the elements of entrepreneurship

competencies that are addressed in the literature, and their key findings suggest that entrepreneurship education can indeed nurture students' ability to think creatively, identify opportunities, and develop innovative solutions.

Furthermore, entrepreneurship education has been linked to the development of 21st century skills such as critical thinking, communication, and creativity (Benek & Akçay, 2022)[8]. By engaging in socio-scientific STEM activities, students can enhance their social and intercultural entrepreneurship skills, self-management, and leadership abilities (Benek & Akçay, 2022)[8]. This holistic approach to education prepares students not only for technical challenges but also for the broader societal impact of their work. In conclusion, entrepreneurship education is a valuable tool for nurturing STEM students' potential by fostering innovation, building essential skills, promoting financial literacy, encouraging leadership, and addressing socioeconomic disparities.

In terms of engineering, entrepreneurship education is essential to instill the necessary skills and mindset required for success in today's workforce. Access to entrepreneurship education enables engineers to acquire knowledge, skills, competencies, and capabilities crucial for identifying opportunities, and planning and executing entrepreneurial activities (Pergelova et al., 2023)[10]. It also enhances engineers' abilities in product design, development, and prototyping, while inculcating an understanding of technology trends and market analysis, providing practical experience that will be invaluable when starting their own ventures (Kishore, 2021)[11].

Furthermore, entrepreneurship education fosters an entrepreneurial mindset among engineering students, encouraging them to explore unconventional career paths beyond

traditional engineering roles (Roy et al., 2019)[12]. By integrating entrepreneurship into engineering programs, students can develop a broader skill set that includes teamwork, project management, and entrepreneurship, all increasingly important in today's engineering landscape (Fernandes et al., 2016)[13]. This multidisciplinary approach not only boosts students' entrepreneurial intentions but also enhances their knowledge, skills, and attitudes towards running their own businesses or enterprises (Ahrens et al., 2021)[14].

Moreover, the implementation of entrepreneurship education elements in engineering programs has been found to stimulate entrepreneurial activities among engineering students, particularly among female students (Fenici et al., 2021)[15]. By providing real-life immersion and hands-on experiential learning, engineering entrepreneurship education can deliver relevant outcomes that prepare students for entrepreneurial endeavors. Exposure to entrepreneurship concepts early in their academic journey significantly impacts students' entrepreneurial intentions and self-efficacy, potentially leading to a career in entrepreneurship (Elliott et al., 2020)[16].

In conclusion, entrepreneurship education in engineering programs empowers engineers with the tools, knowledge, and mindset needed to pursue entrepreneurial ventures, contribute to innovation, and navigate the complexities of the modern business landscape. By integrating entrepreneurship into engineering curricula, institutions can better prepare students for diverse career opportunities and equip them with the skills required to succeed in an ever-evolving professional environment.

Objective

The significance of entrepreneurship in education has traditionally been evaluated through economic metrics, primarily focusing on higher education and its impact on earnings or job creation. However, this paper aims to diverge from this convention by examining the transformative influence of extracurricular entrepreneurship education on high school students, particularly through the exemplary success of the The Indus Entrepreneurs (TiE) Young Entrepreneurship Academy (TYE).

TYE is an initiative of TiE, which is a well-known global non-profit organization established in 1992 in Silicon Valley, California. TYE epitomizes the power of mentorship, networking, and education in fostering the entrepreneurial spirit in aspiring young minds. Originally established in 2005 in Boston, TYE has since grown to encompass 30 locations worldwide, imparting invaluable skills and knowledge to over 20,000 students, underscoring the scalability of the program.

Through a comprehensive curriculum and a dedicated team of mentors, TYE equips students aged 16-18 years with a diverse skill set encompassing problem-solving, design thinking, business model creation, team dynamics, financial management, go-to-market strategies, and effective pitch deck creation and presentation techniques.

Our paper seeks to delve into the perceptions of participants regarding this program and its profound impact. By analyzing pre- and post-program mixed method tools, we aim to elucidate how TYE participants not only acquire a deeper understanding of fundamental business concepts such as marketing, finance, and design thinking but also develop crucial soft skills such as public speaking and networking. Moreover, our research endeavors to

highlight the increased confidence and clarity that students gain regarding their career aspirations as a result of their participation in the TYE program.

Through empirical analysis of our quantitative assessment data, we aspire to shed light on the multifaceted benefits of entrepreneurship education for high school students, underscoring its role in nurturing the next generation of innovative leaders and changemakers. By elucidating the tangible outcomes and transformative experiences facilitated by TYE, our paper aims to contribute to a broader understanding of the significance of extracurricular entrepreneurship education in shaping the future trajectory of young individuals.

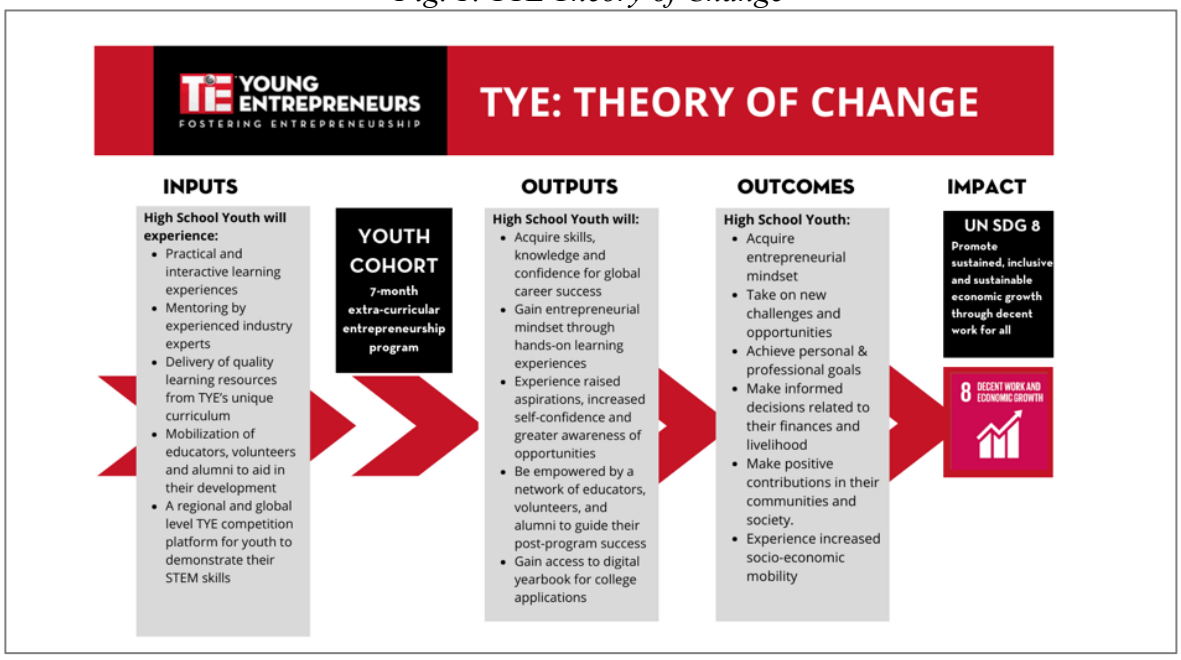
Approach

The TYE Entrepreneurship Academy stands as a robust platform for nurturing the entrepreneurial spirit among high school students. It represents not just a mere competition but a comprehensive program that spans seven months, offering a transformative journey of learning, innovation, and practical application. At its core, TYE endeavors to instill in its participants the fundamental principles of entrepreneurship while equipping them with the requisite skills, knowledge, and mindset to navigate the complexities of the modern business landscape.

As teams embark on their TYE journey, they are introduced to a rich array of methodologies, including lean startup, customer development, and design thinking. These methodologies serve as guiding principles, steering teams through the iterative process of business creation, from ideation to execution. Over the course of months of meticulous preparation, teams immerse themselves in the intricacies of building a business, blending creativity with strategic acumen to craft innovative solutions to real-world problems.

Central to the TYE experience is the dual challenge of developing both a tangible product demonstration and a robust business model. This multifaceted approach ensures that participants not only conceive ground-breaking ideas but also understand the pragmatic aspects of transforming those ideas into viable ventures. Guided by a set of judging criteria meticulously crafted to mirror the demands of the entrepreneurial world, teams are encouraged to delve deep into the intricacies of entrepreneurship, exploring concepts such as market validation, customer acquisition, and financial sustainability.

Fig. 1: TYE Theory of Change



While the ultimate goal of the TYE's culmination event, the Final Pitch Competition, prepares participants for the rigors of pitching to investors. It goes beyond mere theoretical instruction, as the teams are immersed in a hands-on learning experience that mirrors the challenges and opportunities of real-world entrepreneurship. They learn to navigate the complexities of launching a startup, grappling with issues such as market fit, revenue models, and scalability.

Throughout their TYE journey, teams are encouraged to embody the principles of hard work and innovation. They are challenged to not only identify promising market opportunities but also to demonstrate the value proposition of their products or services. Moreover, they are tasked with engaging in meaningful customer validation, soliciting feedback, and iterating based on real-world insights.

Administered over the course of seven months, the TYE program represents a holistic approach to entrepreneurship education. It combines practical training, a unique curriculum, and mentorship from seasoned entrepreneurs to provide participants with a comprehensive learning experience. By empowering high school students to form teams, develop real startups, and deliver compelling pitches, TYE lays the groundwork for future generations of innovative leaders and change-makers.

In our research, we aim to evaluate the impact of the TYE program with an analysis of self-reported assessment from the student perspective. Through our analysis, we hope to shed light on the efficacy of entrepreneurship education in empowering the next generation of entrepreneurial leaders.

Methodology

This section outlines the methodology employed to address the theme of this study. Our method focuses on examining high school students' perceptions of entrepreneurial education. A quantitative approach was employed for data collection, utilizing an online survey method. The survey was designed and distributed via the Google Forms platform. It was disseminated among high school students prior to the start of the program for baseline data, and on conclusion of the program it was administered again to all the participating students to collect

the endline data. A comparison is made, with a total of 215 students responding to the survey, over a period of three years.

In this study, 213 responses were obtained from all the high school students attending the TYE program in Boston. Data collection took place twice in the program, in the month of October at the start of the TYE program and then again in May at the conclusion of the program, with each student voluntarily responding to the questions. The data collection instrument for this study comprises five sections (Appendix A). The first section was designed to gather identification information of the respondents, while the subsequent three sections contained questions specifically tailored to address soft skills, hard skills in entrepreneurship, and 21st century life skills on a five point scale. The final section collected TYE code of conduct consent. These questions were structured to maintain a logical sequence, facilitating the respondent's process of answering subsequent questions. Consent for data collection was obtained from the students via a Release Form (Appendix B), in the absence of a formal IRB approval.

Separately, a survey tool was administered to the alumni of the TYE program to collect information related to their ability to lead, inclination toward pursuing a STEM career and launching a startup. This data collected is also presented in this paper. The authors assume a positive correlation between confidence levels expressed by the students and entrepreneurial behavior. Future studies should include actual entrepreneurial behavior to paint a more complete picture of the effect of entrepreneurship education.

Results and Discussion

This section of the paper focuses on providing an interpretation of the results obtained from the analysis of the received survey responses. It is crucial to interpret the results within the context of scientific knowledge available so that other researchers and stakeholders can better understand the issues and advance it further.

Table 1 covers the total number of high school students who responded to the survey.

Table No. 1: Number of Respondents by Year

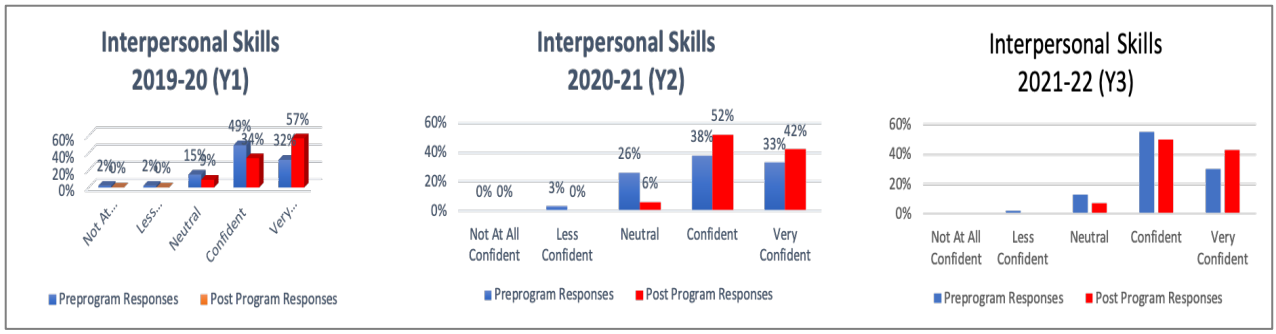
Sr No	Year	Respondents
Y1	2019-20	87
Y2	2020-21	60
Y3	2021-22	66

Source: results of primary data

The first section addresses soft skills in students. Three types of skills are evaluated in this section, namely, interpersonal skills, interview skills, and leveraging a network.

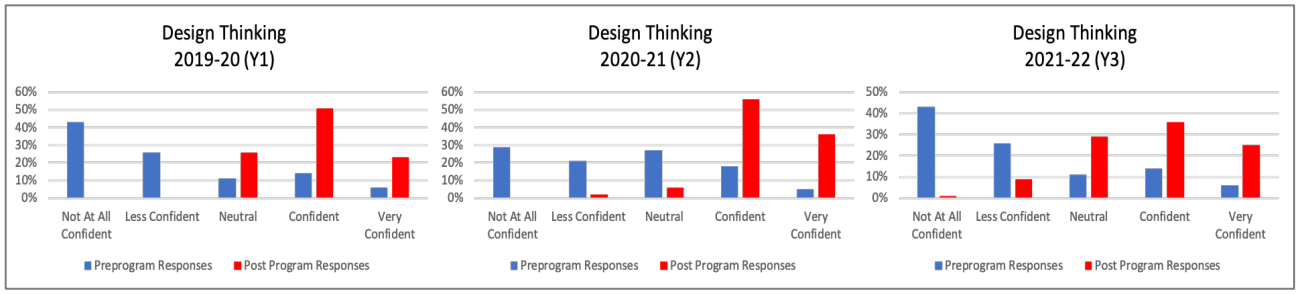
For interpersonal skills, as per the end-line data, there is an increase of 56% students (Y1), increase of 41% students (Y2) and increase of 42% students (Y3) reporting very high levels of interpersonal skills, over the baseline data collected. See Fig. 2.

Fig. 2: Interpersonal Skills



In the second section, hard skills for entrepreneurship were evaluated, namely knowledge of launching a startup, design thinking and business models. The findings point towards the largest gain in knowledge reported by the students, in this section. One of the skills, namely Design thinking is defined as a team-based iterative three-step process of: 1) being inspired by the world through observing it closely looking for problems and opportunities; 2) brainstorming around plausible ideas for concepts that can help people; and 3) testing these ideas on users through prototyping (Brown, 2008)[17]. Design thinking focuses on a creative search for what might be, instead of being limited by what is and what "should" be (Dunne and Martin, 2006)[18]. See Fig 3.

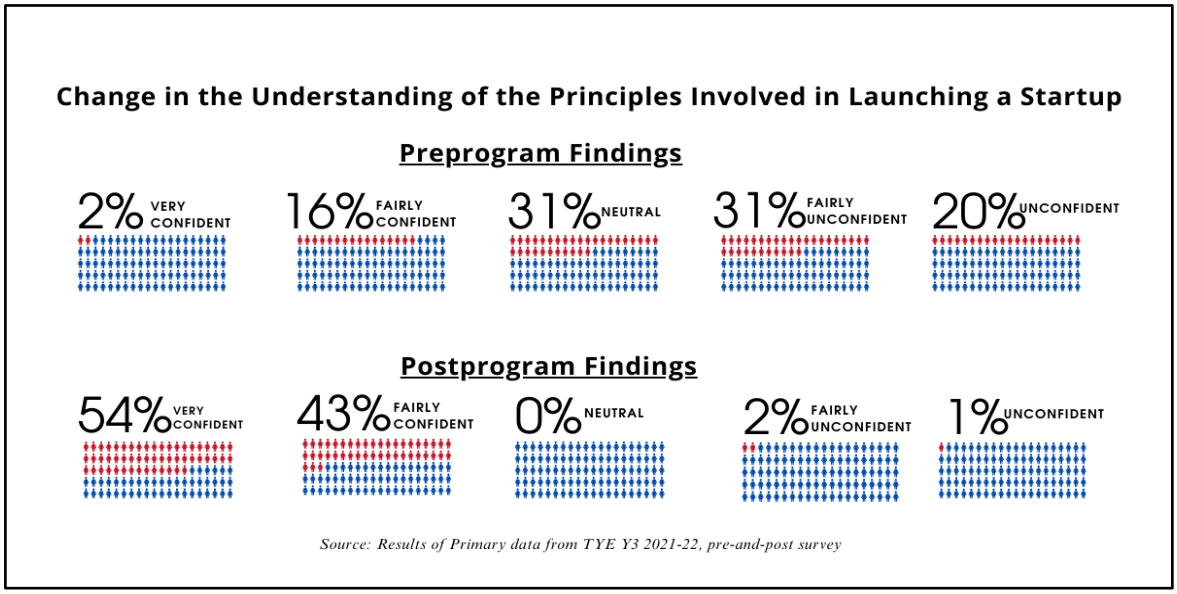
Fig 3: Design Thinking Skills



Also, it is observed from the data that students' understanding of launching a startup increased significantly over the duration of the TYE program every year. As Fig. 4 shows, in 2021-22, the positive points on the scale (Very Confident, Fairly Confident) showed

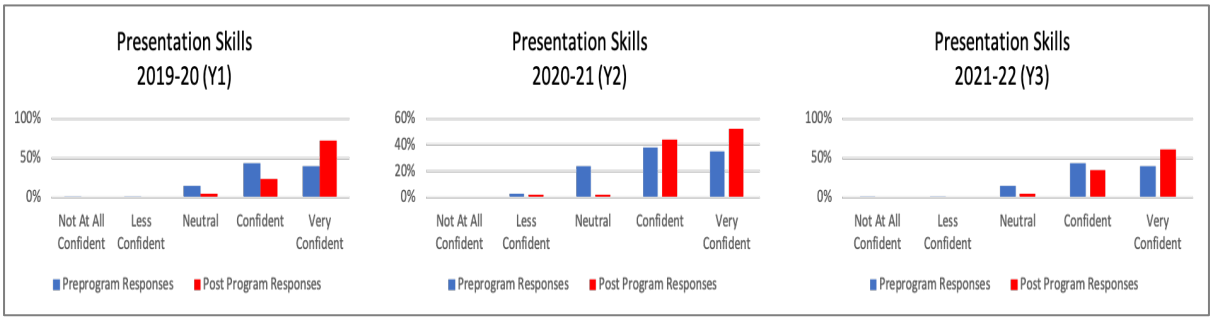
increased understanding, while the Neutral, Fairly Unconfident, and Unconfident points showed a decrease, thereby reiterating that the TYE program has equipped students in the 2021-22 cohort, with a better understanding of the principles that are involved in launching a startup.

Fig 4. Understanding of the Principles Involved in Launching a Startup



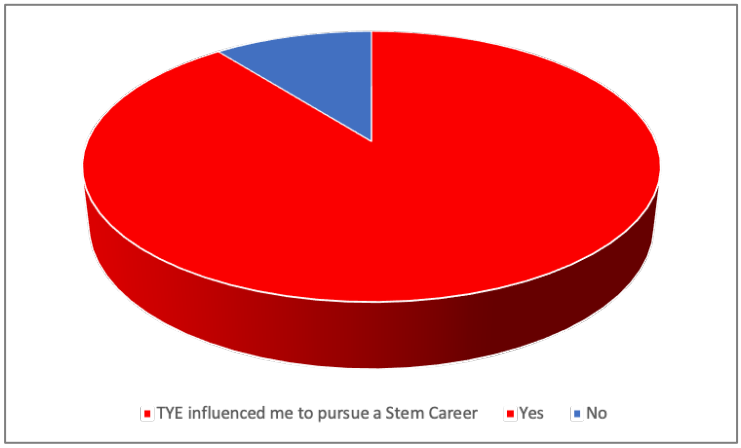
In the third section on 21st century life skills, the students were asked to report their confidence in presentation skills, marketing principles and financial literacy. There is a reported increase of 71% in Y1, 51% in Y2, and 60% in Y3 in presentation skills. Though most of the students indicated at the baseline that they had presentation skills, their confidence levels grew over the course of the TYE program as shown in Fig. 5.

Fig. 5. Presentation Skills



The findings from a separate tool that was administered to the alumni of the TYE program demonstrate the effectiveness of imparting entrepreneurial skills to high school students as 90% reported TYE positively influenced their decision to pursue a career path in STEM (Fig. 6).

Fig. 6: Pursuing a STEM Career



40% of the alumni who took the survey reported that TYE inspired them to start their own company, and 97% reported an increased ability to lead.

Overall, the findings point towards an increased level of soft skills and hard skills, as well as life skills that are necessary for the changing nature of the workforce. The TYE program possesses distinct attributes as it goes beyond imparting knowledge and skills; its true measure lies in producing resilient, capable youth who can assimilate well into the changing workforce or stimulate job creation by starting their own company. Timmons (Timmons, J. & Spinelli, S., 2004)[19], asserts that formal education has limited capacity to instill entrepreneurial drive in students, primarily due to schools offering minimal courses on business knowledge and preparation. However, with programs like TYE which are scalable and replicable, students find it easier to move into entrepreneurship.

Conclusion & Implications for Further Research

In conclusion, the responses collected from TYE participants demonstrate that TYE-supported entrepreneurial education and training positively influences students to pursue a career in STEM and/or start their own company. Moreover, the student-led startups were focused on value creation for other people. Engaging with programs such as TYE empowers high school students choosing the engineering field in college to apply their technical knowledge to develop practical solutions to societal challenges, create prototypes, and test their ideas in real-world settings. This preparation equips them for careers where they can make a tangible impact, in some instances even before reaching college.

It is clear from the results presented that entrepreneurship education provides high school students with a diverse set of transferable skills essential for success in STEM fields, including collaborative problem-solving, financial literacy, communication and leadership, while enhancing technical capabilities. Engineering projects require funding and budget management skills and entrepreneurship education schools students in financial literacy, budgeting, fundraising, investing, and project management. Entrepreneurship education also empowers high school students to take initiative, pursue their ideas, and become leaders in their chosen fields. This mindset is particularly valuable in engineering and STEM professions, where individuals often need to take charge of projects, lead teams, and drive innovation.

Further research and future studies should delve deeper into the long-term effects of entrepreneurship education on high school students' career trajectories and success in STEM fields. Additionally, exploring the effectiveness of different pedagogical approaches within entrepreneurship education programs like TYE could provide insights into optimizing

educational outcomes. Furthermore, investigating the role of mentorship and networking in fostering entrepreneurial spirit among high school students could offer valuable insights for designing impactful entrepreneurship education initiatives.

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Appendix A

Survey Questionnaires

TYE 2021-2022 Pre-Program Questionnaire

To confirm your participation in TYE, we ask that you complete the following questions so we can better tailor the content of the 2021-2022 TYE Program. Please review and label your confidence level with each statement.

It is okay and understandable if you mark "Not at All" for many of these responses. This does not diminish your accomplishments or who you are. You are joining TYE to BECOME fully confident in all of these areas! We are here to help you grow!

* indicates required question

SECTION 1

Email *

_____

1.Participants name *

_____

2.Student's phone number *

_____

3.I have access to a laptop, desktop or tablet that I can use during the program. *
Mark only one oval.

Yes
No

4.I have a resume and cover letter that highlight all of my accomplishments. *
Mark only one oval.

Yes
No

5.I have a LinkedIn profile that fully details my accomplishments. *
Mark only one oval.

Yes
No

SECTION 2

6.I feel comfortable talking to new people *
Mark only one oval.

	1	2.	3.	4.	5	
Not at all	◯	◯	◯	◯	◯	Very confident

7.I understand what it means to have a growth mindset and utilize it frequently. *
Mark only one oval.

	1	2.	3.	4.	5	
Not at all	◯	◯	◯	◯	◯	Very confident

8.I understand how to do an informational interview. *
Mark only one oval.

	1	2.	3.	4.	5	
Not at all	◯	◯	◯	◯	◯	Very confident

9. I know how to access the leverage my network and the greater Boston community * help me in my future.
Mark only one oval.

	1	2.	3.	4.	5	
Not at all	◯	◯	◯	◯	◯	Very confident

SECTION 3
10. I understand the principles involved in launching a startup. *
Mark only one oval.

	1	2.	3.	4.	5	
Not at all	◯	◯	◯	◯	◯	Very confident

11. I understand Design Thinking and can identify the five phases. *
Mark only one oval.

	1	2.	3.	4.	5	
Not at all	◯	◯	◯	◯	◯	Very confident

12. I know how to analyze and evaluate business models. *
Mark only one oval.

	1	2.	3.	4.	5	
Not at all	◯	◯	◯	◯	◯	Very confident

SECTION 4
13. I understand basic marketing principles. *
Mark only one oval.

	1	2.	3.	4.	5	
Not at all	◯	◯	◯	◯	◯	Very confident

14. I understand basic finance principles. *
Mark only one oval.

	1	2.	3.	4.	5	
Not at all	◯	◯	◯	◯	◯	Very confident

15. I can give a presentation to express my ideas in front of an audience. *
Mark only one oval.

	1	2.	3.	4.	5	
Not at all	◯	◯	◯	◯	◯	Very confident

16. I know what industry I would like to pursue for my post-secondary* education and career.
Mark only one oval.

	1	2.	3.	4.	5	
Not at all	◯	◯	◯	◯	◯	Very confident

SECTION 5 CODE OF CONDUCT

Community Values

Based on your application, we felt that you would be a welcome and contributing member to the TYE Community. This is a brave space for you to learn and challenge yourself. We expect participants to be patient and encourage each other and provide that space for self-development. It is necessary to voice opinions to strengthen the cohort but delivery must be

respectful and collaborative. The following statements are to clarify the TYE Community Values to ensure that a welcome and collaborative space is felt and upheld by all.

17. I will treat my fellow TYE participants with respect. *
Mark only one oval.

Accept
Do Not Accept

18. I will inform the TYE Program Director more than 24 hours before the session if I need to be absent, late, or leave the session early. *
Mark only one oval.

Accept
Do Not Accept

19. I understand that without prior approval, I will not be allowed to participate in TYE if I miss more than 2 classes. *
Mark only one oval.

Accept
Do Not Accept

20. I understand that it is my responsibility to show up on time, stay for the entire duration of the class, and be alert and ready to work for every TYE class. *
Mark only one oval.

Accept
Do Not Accept

20. I accept the challenges that the TYE program will present to me even if some of them put me outside my comfort zone. I recognize that these challenges are opportunities to grow and learn. *
Mark only one oval.

Accept
Do Not Accept

21. I will actively participate in the TYE learning process and agree to not speak over anyone, to speak up in class when I have been quiet, and let others speak up in class if I have been doing the majority of the talking (Step Up & Step Down). *
Mark only one oval.

Accept
Do Not Accept

22. For the TYE in-class exercises and competitions, I will act with Gracious* Professionalism (definition: competition for the sake of bettering and improving both competitors as a result of the competition, not the sake of destroying one another.)
Mark only one oval.

Accept
Do Not Accept

23. I recognize that I must be an active part of making TYE a brave space for all* participants. I will not participate in bullying. If I am a witness to bullying during the program, I will notify the TYE Program Director immediately.
Mark only one oval.

Accept
Do Not Accept

24. If at any time, I have any questions, comments, feedback, or concerns about any* aspects of TYE, I will let TYE representative know about them early enough so that we can work them out.
Mark only one oval.

Accept
Do Not Accept

25. TYE takes the safety and wellbeing of all of its participants seriously. I* understand that by signing this agreement, I agree to comply with the TYE Code of Conduct. If TYE finds that I am in violation of the code of conduct, TYE has the right to dismiss me from the program.
Mark only one oval.

Accept
Do Not Accept

TYE Student Applicant Signature (by placing your name here you accept to follow* by the guidelines set by TiE Boston.)

_____

TYE 2021-2022 End of Year Assessment
Please review and label your confidence level with each statement.
* indicates required question

SECTION 1
Email *

_____

1.Participants name *

_____

2. I have a resume that highlights all of my accomplishments. *
Mark only one oval.

Yes
No

3. I have a LinkedIn profile that fully details my accomplishments. *
Mark only one oval.

Yes
No

4. I feel comfortable talking to new people *
Mark only one oval.

	1	2.	3.	4.	5	
Not at all	◯	◯	◯	◯	◯	Very confident

5. I understand what it means to have a growth mindset and utilize it frequently. *
Mark only one oval.

	1	2.	3.	4.	5	
Not at all	◯	◯	◯	◯	◯	Very confident

6. I understand how to do an informational interview. *
Mark only one oval.

	1	2.	3.	4.	5	
Not at all	◯	◯	◯	◯	◯	Very confident

7. I know how to access the leverage my network and the greater Boston community help me in my future. *

Mark only one oval.

	1	2.	3.	4.	5	
Not at all	◯	◯	◯	◯	◯	Very confident

8. I understand the principles involved in launching a startup. *
Mark only one oval.

	1	2.	3.	4.	5	
Not at all	◯	◯	◯	◯	◯	Very confident

9. I understand Design Thinking and can identify the five phases. *
Mark only one oval.

	1	2.	3.	4.	5	
Not at all	◯	◯	◯	◯	◯	Very confident

10. I know how to analyze and evaluate business models. *
Mark only one oval.

	1	2.	3.	4.	5	
Not at all	◯	◯	◯	◯	◯	Very confident

11. I understand basic marketing principles. *
Mark only one oval.

	1	2.	3.	4.	5	
Not at all	◯	◯	◯	◯	◯	Very confident

12. I understand basic finance principles. *
Mark only one oval.

	1	2.	3.	4.	5	
Not at all	◯	◯	◯	◯	◯	Very confident

13. I can give a presentation to express my ideas in front of an audience. *
Mark only one oval.

	1	2.	3.	4.	5	
Not at all	◯	◯	◯	◯	◯	Very confident

14. I know what I want industry I would like to pursue for my post-secondary education and career. *

Mark only one oval.

	1	2.	3.	4.	5	
Not at all	◯	◯	◯	◯	◯	Very confident

One of my favorite aspects of TYE was:

_____

_____

One suggestion I have to improve the student experience is....

_____

_____

Appendix B

Release/Consent Form

TiE Boston Foundation Inc.
Photo & Data Release

I, _____, hereby grant TiE Boston Foundation Inc permission to use my likeness in a photograph in any and all of its publications, including but not limited to all of TiE Boston Foundation, Inc's printed and digital publications. I understand and agree that any photograph using my likeness will become property of TiE Boston Foundation, Inc. and may not be returned.

I hereby irrevocably authorize TiE Boston Foundation Inc. to edit, alter, copy, exhibit, publish or distribute this photo for purposes of publicizing TiE Boston Foundation Inc. programs or for any other related, lawful purpose. In addition, I waive the right to inspect or approve the finished product, including written or electronic copy, wherein my likeness appears. Additionally, I waive any right to royalties or other compensation arising or related to the use of the photograph.

I hereby grant unconditional permission to TiE Boston to use my TYE pre and post program data for the purpose of program evaluation, research, and impact studies. The data may be used towards educational purpose and not for commercial purpose. I acknowledge that since my participation with TiE Boston Foundation Inc. is voluntary, I will receive no financial compensation.

I hereby hold harmless and release and forever discharge TiE Boston Foundation Inc. from all claims, demands, and causes of action which I, my heirs, representative, executors, administrators, or any other persons acting on my behalf or on behalf of my estate have or may have by reason of this authorization.

Printed Name:_____ Date: _____

Signature:_____

If below 18 years of age,
Guardian's Signature: _____