

INTERAC EXPERIENTIAL LEARNING PROGRAM

Executive Summary



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Background

Black students are underrepresented in university programs that focus on the Science, Technology, Engineering and Mathematics (STEM) sector (Olaniyan et al., 2023; Wong, 2022). Consequently, the sector is underrepresented by Black professionals, who comprise only 16% of STEM-qualified professionals in the Canadian workforce (Statistics Canada, 2016, as cited in Black Professionals in Tech Network, 2022). Culturally relevant programs and partnerships are critical to address disparities, and particularly in STEM (Olaniyan et al., 2023).

In partnership with Interac, the Centre of Excellence for Black Student Achievement (CEBSA)¹ curated the Interac Experiential Learning Program for Black high-school students at the Toronto District School Board (TDSB) to address the issue of underrepresentation in STEM and IT. The program allows students to learn transferable and in-demand skills such as innovative thinking, coding, building professional brands and creating digital IDs. Through this program, Black students can connect with Black professionals to learn more about pathways to success in STEM and IT.

Introduction

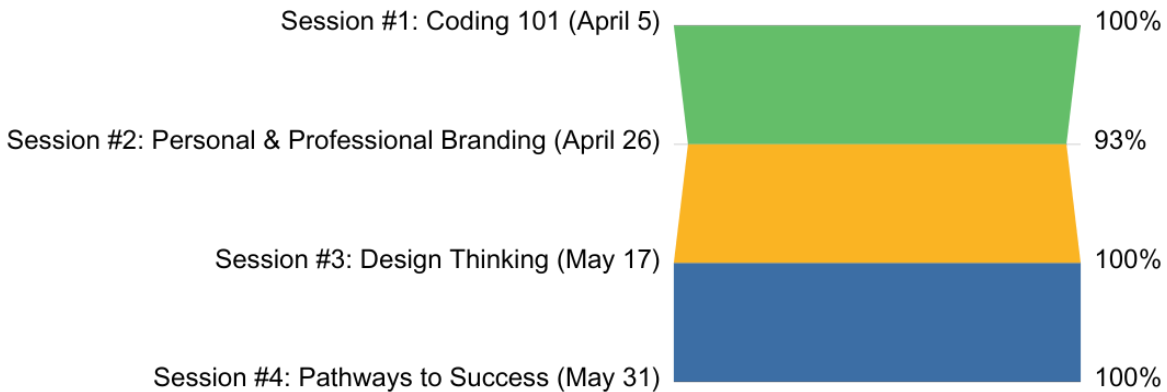
The Interac Experiential Learning Program encompasses four half-day sessions (April 5th, April 26th, May 17th, and May 31st) explicitly catered for Black² students in grades 11 and 12 at TDSB. On April 5th, 2023, Session #1 introduced students to Interac and presented an interactive session on coding and different programming languages. On April 26th, 2023, Session #2 presented students with an overview of building their personal and professional brand by learning about marketing and communication techniques, (e.g., creating a logo and branding items). On May 17th, 2023, Session #3 taught students the fundamentals of design thinking. On May 31st, 2023, Session #4 was an opportunity for students to participate in an intimate session with Black Interac employees to learn about the pathways to success. In the end, Sessions #1, #3, and #4 ended with an attendance rate of 100%, and Session #2 ended with 93%. Figure 1 below demonstrates a visual representation of the attendance rates.

Figure 1

¹ [Centre of Excellence for Black Student Achievement](#)

² The term Black refers to individuals, peoples or communities of Black /African descent living in Canada. This may include, but are not limited to individuals or peoples from the Black diaspora with varying geographical, historical, cultural, national, ethnic, religious, and ancestral origins and influences (e.g. African, African-Canadian, Afro-Caribbean, Afro Latin, Afro indigenous, Afro-Europeans).

Attendance of all 4 Interac Sessions



This report seeks to present findings from the Interac Experiential Learning Program, including all four sessions, and highlight key themes from the survey students completed at the program's end. This report will discuss the following themes: Black Students' Experience in the program; Black students' engagement with STEM, IT and Business; and Learning Outcomes. Finally, this report will conclude with recommendations suggested by students for the Centre of Excellence of Black Student Achievement, TDSB, guidance counsellors, teachers and other staff.

Methods

The data presented in this executive summary provides key findings from the 2023 Interac Experiential Learning Program survey completed by Black students who participated in the program. The participating students provided feedback on their experiences in the program, reasons for their participation, and their engagement and satisfaction with the program. In addition, the survey asked students about how they heard of the program and their suggestions for improving it. The survey included both closed and open-ended questions for students to provide answers in their own words. The survey included open-ended questions that allowed students to share their overall experiences, allowing them to have their voices heard and valued. These open-ended responses enabled the research team to contextualise the close-ended inquiries. A total of fourteen (n=14) students completed the survey.

Results

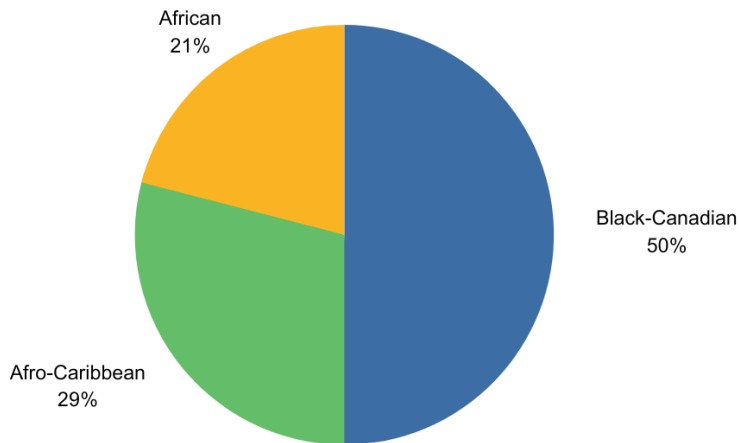
A total of 16 students participated in the Interac Program, and 14 completed the survey, resulting in a completion rate of 87.5%.

Participant Profile

Survey participants represented two different grade levels: fifty-seven percent (57%) of students came from Grade 11, and 43% were in Grade 12. Of the 14 students, 11 identified as female and three as male. Majority of the students (79%) did not identify as members of the 2SLGBTQIA+ community, while 21% preferred not to share. Regarding racial identification, 50% of participants identified as Black-Canadian, 29% as Afro-Caribbean, and 21% as African. Figure 2 represents a visual summary of this breakdown.

Figure 2

Representation of Racial Identification



Key Findings

The Interac Experiential Learning Program successfully engaged and developed Black students' interests in STEM, IT, and Business careers. This report groups the findings of the survey into the following themes:

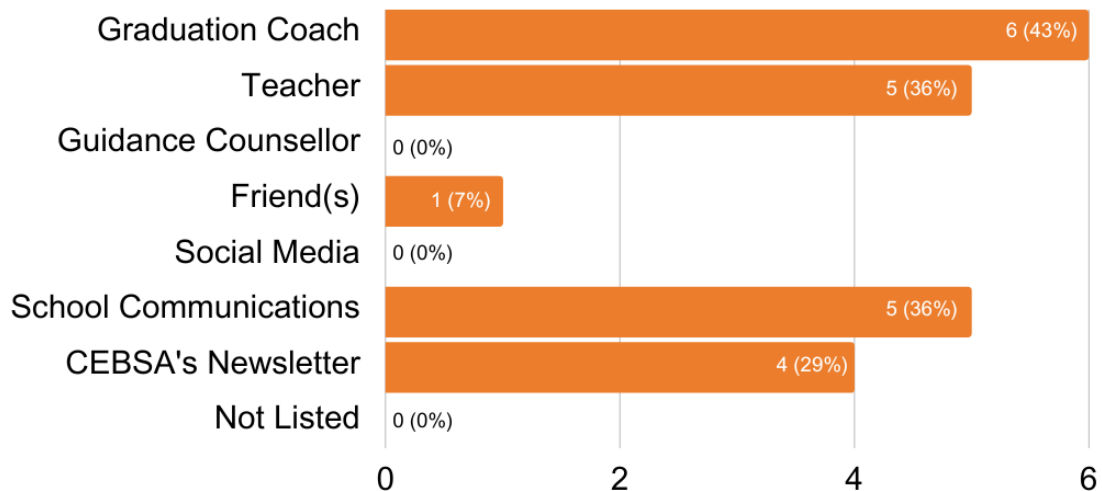
1. Black Students' Experience in the Program
2. Black Students' Engagement with STEM, IT, and Business pathways
3. Learning Outcomes

Black Students' Experience in the Program

Black Students heard about the Interac Experiential Learning Program from various sources, including graduation coaches, teachers, guidance counsellors, friends, social media, school communications (e.g., emails and newsletters), and CEBSA's newsletter. Figure 3 provides a visual representation of which information sources were the most successful in relaying the information to students.

Figure 3

How Students Heard about the Interac Experiential Learning Program

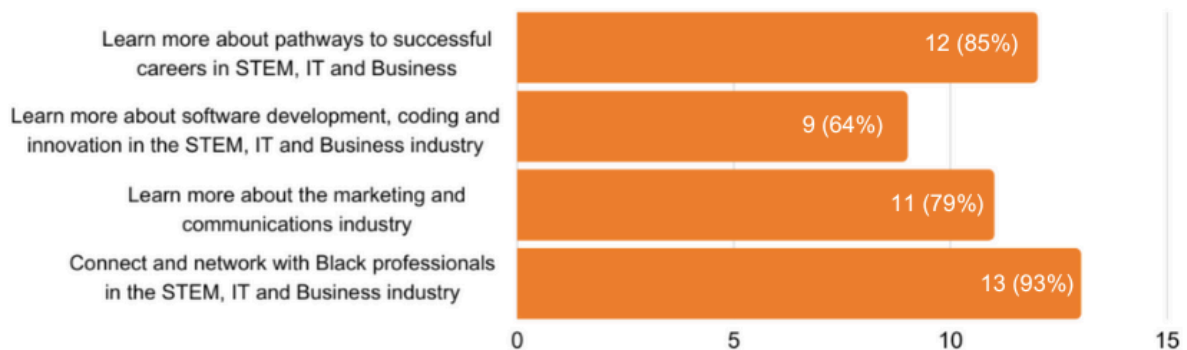


Black students decided to participate in the Interac program for four different reasons. Eighty-five percent (85%) participated in the program to learn more about pathways to successful STEM, IT and Business careers. Sixty-four percent (64%) participated to learn more about software development, coding and innovation in the

STEM, IT and Business industries. Seventy-nine percent (79%) wanted to learn more about the marketing and communications industry, and 93% wanted to connect and network with Black professionals in the STEM, IT and Business industries. Figure 4 below provides a statistical overview of these findings.

Figure 4

Reasons For Participating In The Interac Experiential Learning Program



Satisfaction with the Program

One of the program's most inspirational components was Session #4, Pathways to Success. Students were excited to learn about the different pathways to careers in Information Technology through the lives of Black Interac employees. They found the meeting with professionals inspiring, educational, and motivating. Below is students' feedback regarding their satisfaction with the Interac program.

"My experience at Interac was great. I learnt a lot of valuable information and made new connections with my peers and the adults sharing their knowledge with the students. The last workshop was particularly my favourite because we got to talk to professionals one on one and they shared their journey with all realness."

(Student, Grade 11)

“My experience was really good. Each session was informative and insightful. I learned about pathways that I didn’t really consider before or had much interest in, like information technology. The presenters all had different backgrounds which was really nice because it was interesting to see how each individual got to the career they have now. This program helped me learn that education and life is not linear and it’s ok to go at your own pace.”

(Student, Grade 12)

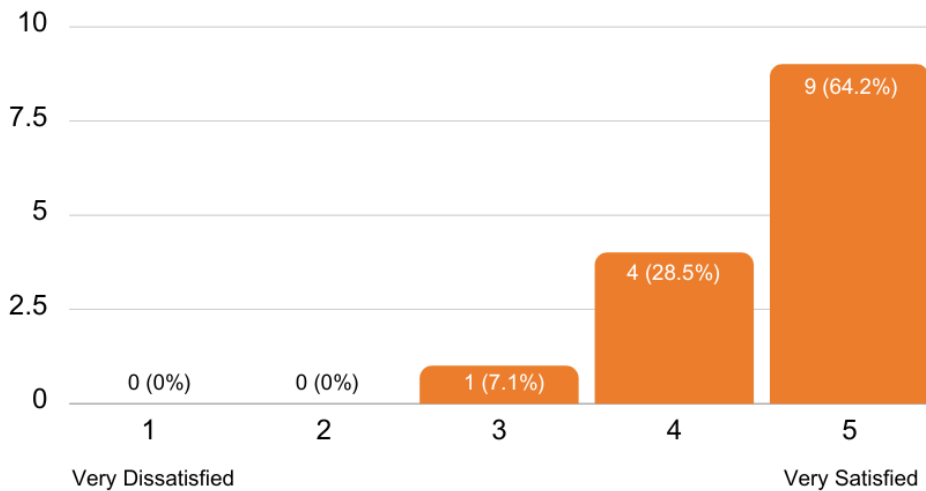
“It was a very enlightening and insightful experience. I’m so glad to have had the opportunity to meet successful people in positions that I aspire to be in in the future, especially those who look like me.”

(Student, Grade 12)

In addition to the open-ended responses, students answered the following question to determine their satisfaction levels: *On a scale of 1 to 5 (where 1 is ‘Very dissatisfied’ and 5 is ‘Very satisfied’), how would you rate the overall experience with the Interac Experiential Learning Program?* As shown in Figure 5 below, an overwhelming majority leaned on expressing satisfaction with the program. The scale of 1 to 5 translates to 1: Very Dissatisfied, 2: Dissatisfied, 3: Neutral, 4: Satisfied, and 5: Very Satisfied. Nine out of 14 respondents responded that they were ‘Very Satisfied’ with the program, 4 out of 14 were satisfied and 1 remained neutral.

Figure 5

Satisfaction with the Program



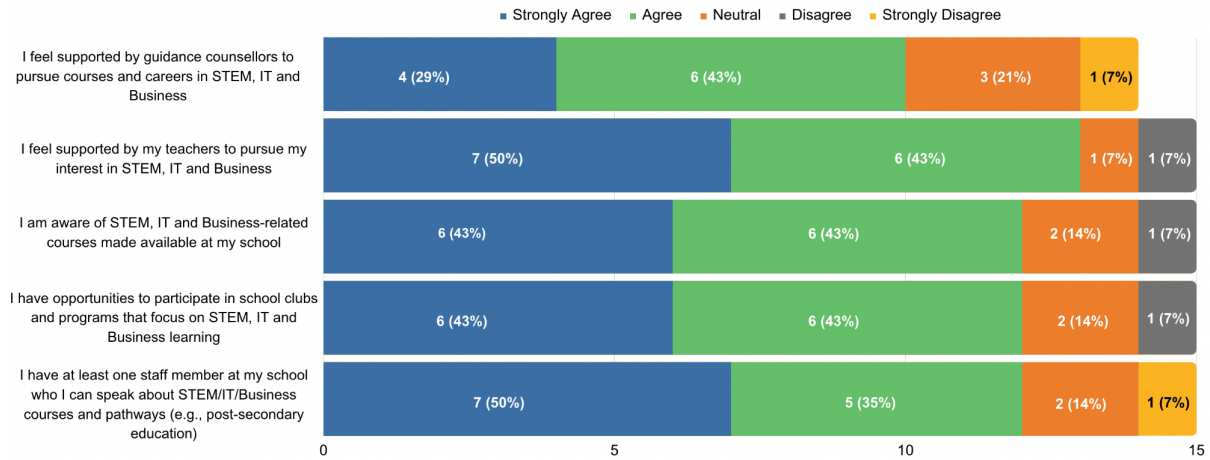
Black Students' Engagement with STEM, IT and Business Pathways

Prior to participating in the Interac program, students indicated they had little to no experience engaging in courses related to Technological Education, Information Technology, Computer Studies and Business Studies. Of 14 participants, only two students took Communications Technology, 1 took Exploring Communication Technology, 3 took Computer Engineering Technology, 2 took Technological Design, 2 took International Business Fundamentals, Calculus and Vectors, and 1 took Mathematics and Data Management. No students took courses such as Exploring Communications Technology and Manufacturing Engineering Technology. However, courses such as Business Marketing, Chemistry, Physics, Biology, and Advanced Functions proved helpful in their interest in STEM, IT and Business pathways.

Taking STEM, IT, and Business courses is crucial in developing pathways toward post-secondary education and future degree attainment in the IT professional field (Tyson at al., 2007). Black students need to feel supported by school staff to learn about the different pathways available to them in STEM, IT and Business. Figure 6 demonstrates students' level of agreement *with feeling supported from school in STEM, IT and Business pathways*.

Figure 6

Student's level of agreement with feeling supported from school in STEM, IT and Business pathways



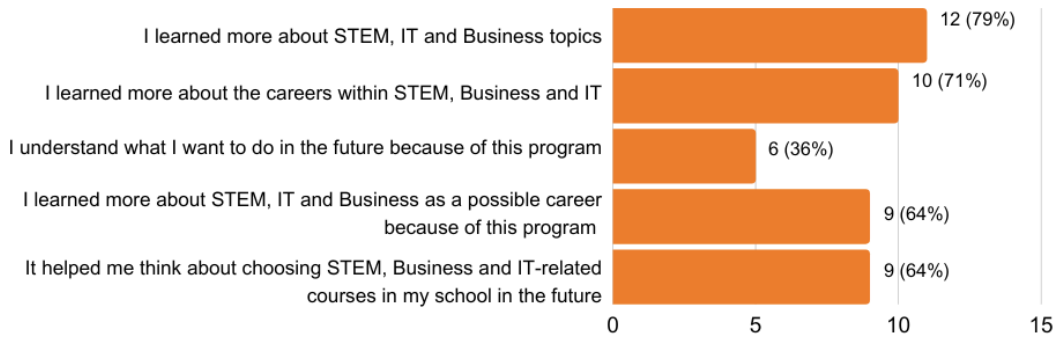
As shown in Figure 6 above, the majority of students expressed that they felt supported by their guidance counsellors, teachers, and staff to pursue their interests in STEM, IT, and Business, whether through courses, clubs, or post-secondary education. Below are direct quotes from students showing their engagement and the level of support received during the program.

“I have this one teacher who encourages me about what I want to do and gives me opportunities that will help with my future. He was the one who told me about the Interac program.”

(Student, Grade 12)

Figure 7

What Students' Gained From During the Program

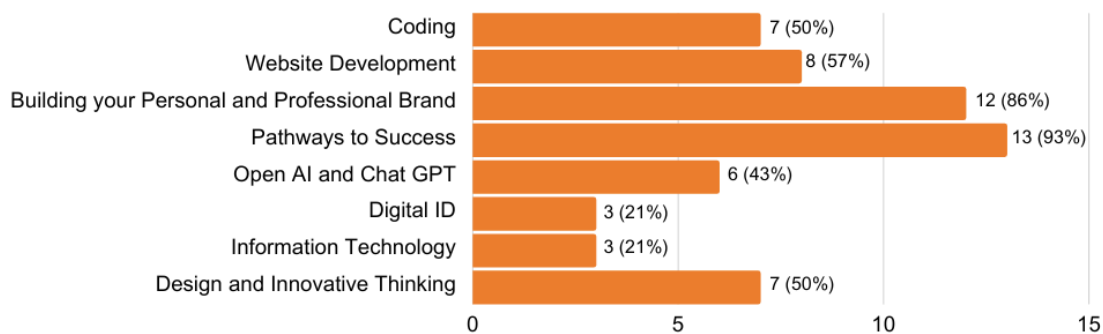


The survey asked students to share what they gained from the Interac program, and Figure 7 above reveals that 79% of students gained learning about STEM, IT, and Business topics the most. Furthermore, 71% said they learned more about STEM, Business, and IT careers and 64% said they learned more about STEM, IT, and Business as possible careers because of this program. Lastly, 36% expressed that they understand what they want to do in the future because of this program. When asked about their career plans, 50% of students said they were ‘Extremely Likely’ and ‘Very Likely’ to consider a career in STEM, Business and IT. The other 50% was divided into 29% saying they were ‘Somewhat Likely’ to consider this career path and 21% said ‘I am still deciding on my career’.

Learning Outcomes

Figure 8

Students’ Favourite topics in the Program



Based on Figure 8 (see above), students were most excited to learn about Pathways to Success offered in STEM, IT and Business. This chart helps uncover how

and why STEM, IT and Business pathways do not traditionally account for the inclusion of Black students in these careers (London et al., 2020; Tyson et al., 2007). The popularity of Pathways to Success also shows how important it is for Black students to learn from Black professionals. One student said:

“I would say that it was an unforgettable experience and really impactful because the things that I learnt at Interac, I wouldn't have known without actually being in the program because my school doesn't teach us those kinds of things or if they do, it's not as in depth as what I learnt at Interac. It was fun and I got to experience and improve things needed to improve from the sessions. The last session especially was really meaningful because not only were they black, but they talk about their experiences (so different/similar to each other) and gave us advice because usually or mostly, the people I do learn from aren't Black (expect [sic] for like 1 or 2 teachers and my family) because they may sympathize towards us but they don't actually understand, so I think it was great having to spend some time with people who actually understood us.”

(Student, Grade 12)

Other courses such as Coding, Website Development, Building your Personal and Professional Brand and Design and Innovative Thinking were favoured by over 50% of participants. Regarding other courses, 43% favoured Open AI and Chat GPT, 21% favoured Digital ID, and 21% favoured Information Technology. Based on students' responses, all courses were appreciated and contributed to their learning.

“All of them were my favourite because I felt like I learned something new from each of them. There wasn't one topic that I knew enough to be disinterested in.”

(Student, Grade 12)

“I don't exactly have a favourite because I feel like I learnt a lot from all of them and I was really interested in each since I knew nothing or next to nothing about them.”

(Student, Grade 12)

Recommendations

The following recommendations come from the Black students who participated in the Interac program. These recommendations offer suggestions for the Centre of Excellence for Black Student Achievement regarding approaches to better strengthen the program for students in the future.

Increase Innovative, Engaging and Creative Sessions

There was an overall demand to create more engaging and inclusive sessions. Under this recommendation, students expressed the following:

- “Think of more innovative ways to teach teens. A lesson that’s an hour+ long isn’t the most engaging.” (Student, Grade 12)
- “Make more interactive presentations so students can pay more attention during long talks.” (Student, Grade 11)
- “Make lessons more engaging.” (Student, Grade 12)
- “I learnt many things from the program but the long periods of talk can make it hard to pay attention. If we have long presentations I recommend them being interactive and engaging participation so students tend to paying attention.” (Student, Grade 11)
- “The excessive use of really big professional words made most presentations hard to follow and understand.” (Student, Grade 11)
- “Facilitators that attended and presented were friendly and easy to converse with. The format of presentation was most of the time hard to follow because of the excessive use of professional language that I personally found really hard to follow.” (Student, Grade 11)

As stated in the Multi-Year Strategic Plan, mathematics pathways and transitions are essential in transforming student learning, achievement, and well-being, and for working towards excellence in the education of Black students (Toronto District School Board, 2018). The Interac Experiential Learning Program is crucial to support Black students’ interest in STEM, IT and Business pathways. Making the sessions more engaging with different learning activities will increase engagement and overall support students in pathways after secondary education.

Increase STEM opportunities for Black Students in TDSB Schools

Reaching excellence in the education of Black students can be achieved through identifying and learning from “evidenced-based practices,” such as the Interac program, “that have been successful in improving the outcomes of Black students and highlight, on an ongoing basis, excellence among Black students in TDSB” (Toronto District School Board, 2018, p.34). Through these programs, greater emphasis can be placed on TDSB schools that create more inclusive environments to support Black students in similar ways that the Interac program does outside of the academic arena. In doing so, students will “experience deep learning opportunities, supported by technology, leading

to improved achievement” (Toronto District School Board, 2018, p.20). This recommendation is important as the TDSB sets out the significance of increasing student participation, the graduation rates of Black students and the number of Black students “moving into a variety of post-secondary pathways” (Toronto District School Board 2018, p.34).

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