

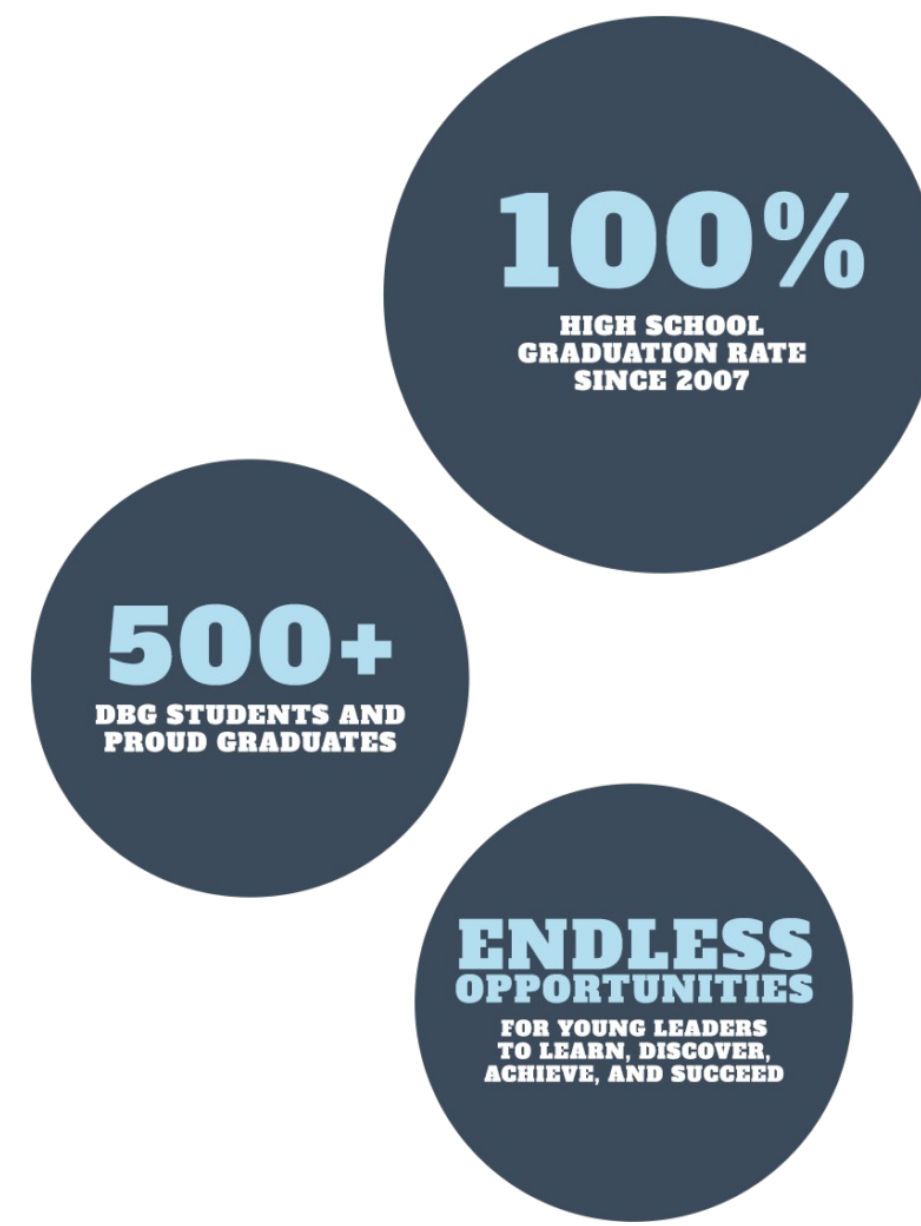
Empowering Youth as Researchers through Engaged Scholarship

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INTRODUCTION

Downtown Boxing Gym (DBG)

- Culturally situated, out-of-school-time program founded in 2007 in Detroit, Michigan.
- Serves approximately 250 elementary to high school students who are predominantly Black and Latinx from low-income backgrounds.
- Offers free academic and athletic programming to students ages 8-18, with continuing mentorship and support through age 25.



DBG's impact on students.
Source: <https://dbgdetroit.org/>

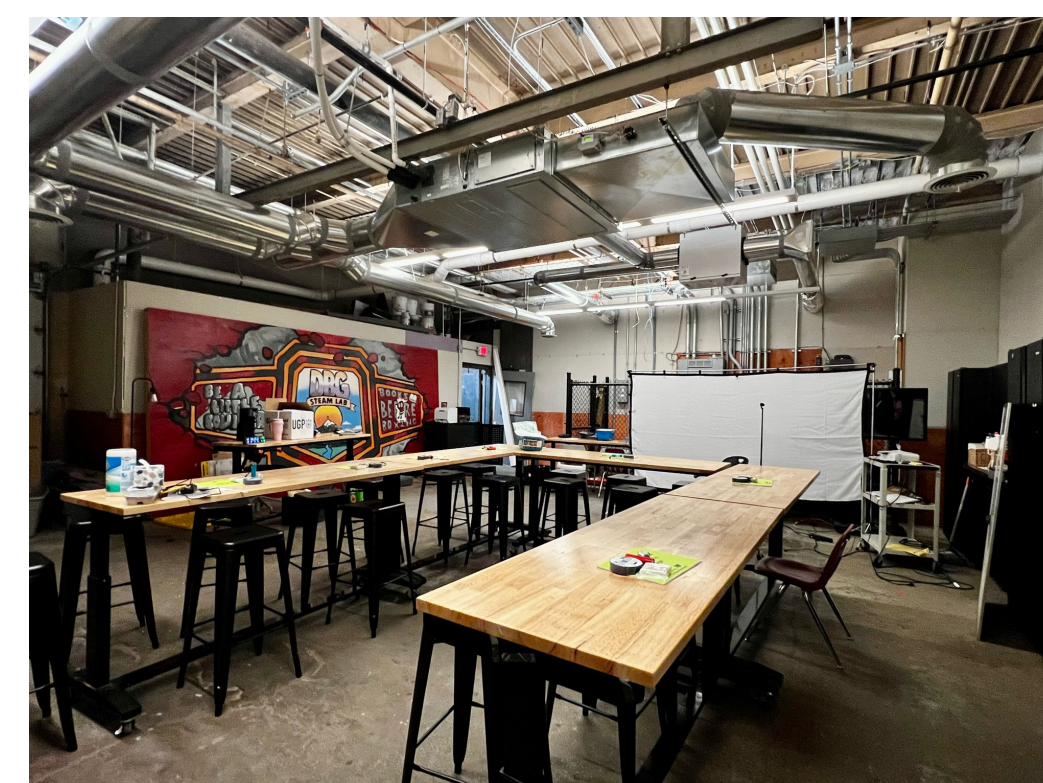


The coach and a student at the ring at DBG.
Source: <https://www.seenthemagazine.com>

- DBG uses boxing as a "hook" to get students in the door.
- Since 2013 the PI (Dr. Case) and DBG have had a mutually-beneficial partnership resulting in multiple projects, publications, and presentations.

DBG STEAM (STEM+Arts) Lab

- STEAM Lab built in 2017.
- Engages students in STEAM activities ranging from computer coding, robotics, and digital animation, to insects, weather patterns, animal life cycles, and more.



DBG STEAM Lab.
Source: Tugce Karatas, February 2024

Full STEAM Ahead

- Five-year community-based participatory research project funded by National Science Foundation (NSF) in 2023.
- Uses mixed methods to evaluate and magnify the impact of innovative STEAM Lab programming on students' STEM efficacy, interests, and identity.
- Advanced DBG students (youth researchers) have been trained to conduct interviews with their peers about their experiences in the STEAM Lab.
- DBG personnel initiated the decision to have youth researchers conduct the interviews, believing their students would be less forthcoming to unfamiliar and culturally dissimilar project researchers.
- This approach, which uses "insider" or peer interviewers, ensures cultural nuances are not lost in qualitative research (e.g., Byrne et al., 2015; Kitchen, 2019).



Amanda Case (left), Khali Sweeney (founder of DBG), Jessica Hauser (DBG Executive Director)
Source: <https://www.hourdetroit.com>

OBJECTIVES

Main purpose of training:

- To prepare high school students to serve as youth researchers responsible for collecting qualitative data through semi-structured interviews.

Objectives of training:

- Establish relationships between the youth researchers and research team.
- Familiarize youth researchers with the project and its goals.
- Introduce youth researchers to the purpose of the interviews, ethics, and interviewing skills.
- Equip youth researchers to use the digital recorders.
- Practice youth researchers' interview skills through mock interviews.

METHODOLOGY

To prepare advanced DBG students as youth researchers, a three-day training program was implemented by 3 Ph.D. students (Ms. Karatas, Zhou, & Piceno) and Dr. Case at DBG in February 2024.

Participants

- Four advanced DBG students (1 Female, 3 Male)

Training

- Ice-breakers, teambuilding activities and STEM challenges every day before the training.

1st day:

- Introduction to the project.
- Purpose of interviews in qualitative research.
- Ethics in research and interviews.

2nd day:

- Interviewing skills.
- Project technology.

3rd day:

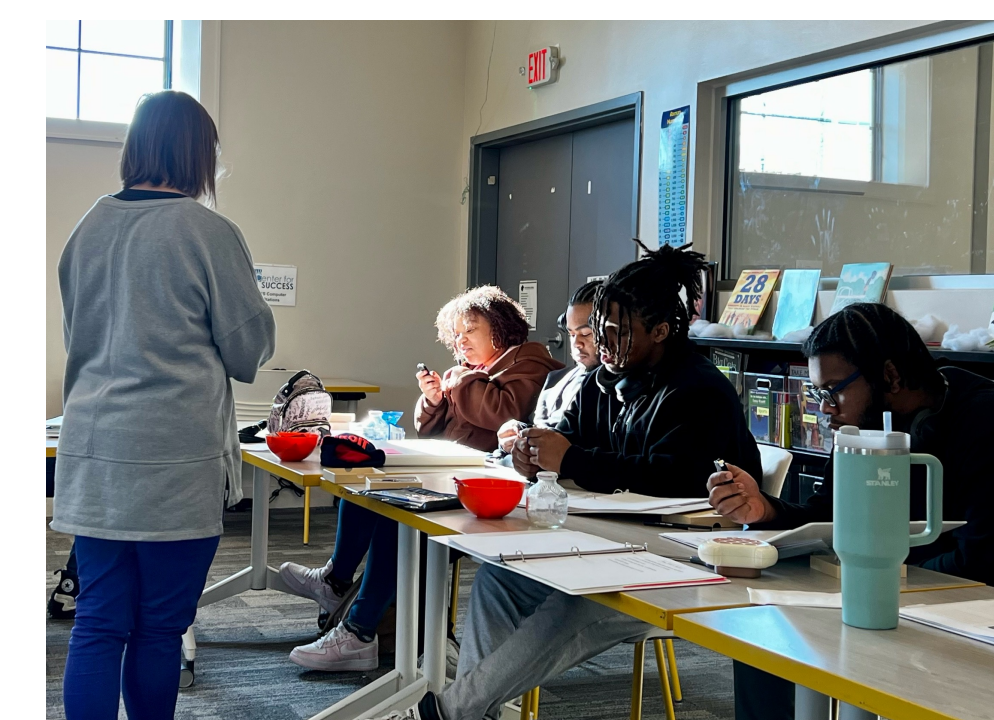
- Interview procedures, and mock interviews.



Students working on a STEM challenge on Day 3 before the training started.
Source: Tugce Karatas, February 2024



Youth researchers learning the purpose of interviews.
Source: Tugce Karatas, February 2024



Dr. Case introducing how to use the recorders.
Source: Tugce Karatas, February 2024



A youth researcher at a mock interview.
Source: Tugce Karatas, February 2024

BENEFITS OF TRAINING

DBG youth researchers...

- Gained experience in research process.
- Developed transferable skills (e.g., leadership, sense of ownership, communication).

DBG...

- Capable of involving trained youth researchers in future research projects and decision-making.
- Furthered their mission to prepare youth for higher education and future occupations.
- Fostered a culture of continuous learning and knowledge sharing within the community.

Purdue research team members...

- Developed skills in youth participatory research.
- Developed/enhanced transferable skills in mentorship, cultural competence, communication, and teamwork.

Research project...

- Higher quality interviews.
- More valid and credible results.
- Capable of reflecting the unique perspectives and experiences of the youth researchers and DBG students.



Youth researchers, DBG staff and Purdue team members.
Source: Tugce Karatas, February 2024

REFLECTION & CONCLUSION

Challenges

- Explaining concepts without jargon or avoiding oversimplifying.
- Making research process and training materials more relatable to the youth researchers' lives.

Strategies used to overcome these challenges

- Regular meetings with the faculty.
- Searching for prior studies involving youth researchers.

Future plans

- Reflecting on our experiences and taking lessons from the training.
- Preparing another training for youth researchers on how to analyze the interview data.

ACKNOWLEDGEMENTS

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REFERENCES

