

Finding A High School Psychology Research Mentor: An International Problem?

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INTRODUCTION

- High school is a period in which students begin to explore their own unique passions and interests.
- Like many students at the undergraduate level, high school students may discover and choose to indulge in **research**, defined as “the ability or inclination to carry out scholarly investigation, learning, and academic achievement.” (Oxford English Dictionary)
- Without the facilities and mentorship offered at a university, it can be speculated that high school students are left “on their own” with the arduous task of getting involved in research.
- Especially around the times of a rampant pandemic, it can also be speculated that such opportunity has been further limited.
- Many outstanding scientists begin their careers in high school. For example, just one school (Bronx High School of Science) has produced eight Nobel Laureates, two Turing Awards and six medalists of the U.S. National Medal of Science (Kong, 2012).



The Bronx High School of Science

- Furthermore, major competitions like the Regeneron STS (Science Talent Search) present national awards to many of 1,900 high school research nominees and encourage ambitious students to endeavor in research each year.
- Many of these students go on to continue making major impacts in their designated fields, and it is this early research foundation that sets the tone for their careers.
- The nurturing of research experience at an early level can pave the way for the next changemakers in the field of psychology and beyond.
- With such a high demand for research opportunities, it is an unsaid academic responsibility to continually encourage young minds and to make research more accessible.

Two main questions were proposed following acknowledgement of the current situation: **Are high school students actively trying and struggling to obtain research mentors? Is this a widespread occurrence?**

METHODS

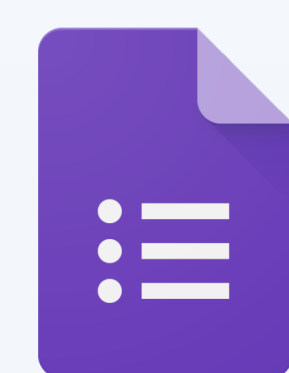
An online survey was distributed to high school students seeking research opportunities, via social media, on the challenges of doing high school research (N=95). This survey aimed to examine if high school students were currently trying and struggling to obtain connections with research mentors and opportunities.

The survey consisted of six questions:

- (1) Which state are you in?
- (2) What high school year are you in?
- (3) Are you interested in a workshop on doing research?
- (4) Have you struggled to find a mentor in the past year?
- (5) To find a mentor, have you had to reach out beyond your local community?
- (6) Do you think a workshop would be beneficial to your learning about research?

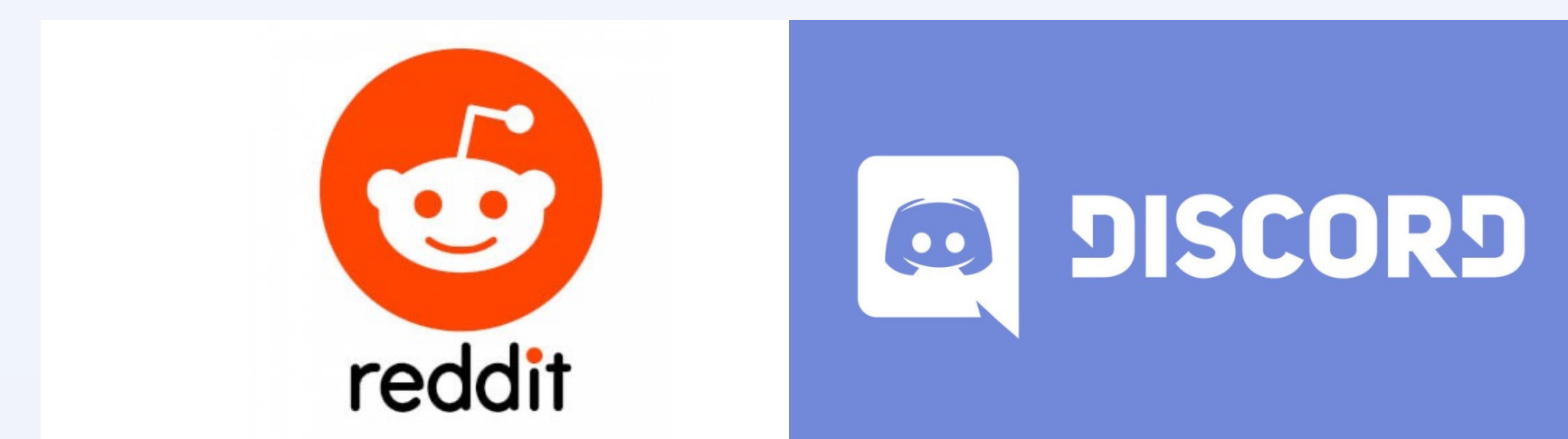
There was also an optional short response prompt on questions 4 and 6 in which participants could choose to include any other information about their research mentor experience.

- This survey was created and distributed through Google Forms. As an easily-accessible and safe survey website, Google Forms was an ideal site to use for a brief and youth-targeted survey study.



Google Forms

- Survey distribution was primarily facilitated through the social media platforms of Reddit and Discord, in which social media hubs of high school students are easily accessible.



- Participants were encouraged to spread the survey to peers who may be going through similar experiences.
- The primary demographic for this survey were high school students who have tried, or wanted to try, working with research mentors. Therefore, the survey was marketed to reach such students through specifications in survey title and descriptions.

RESULTS

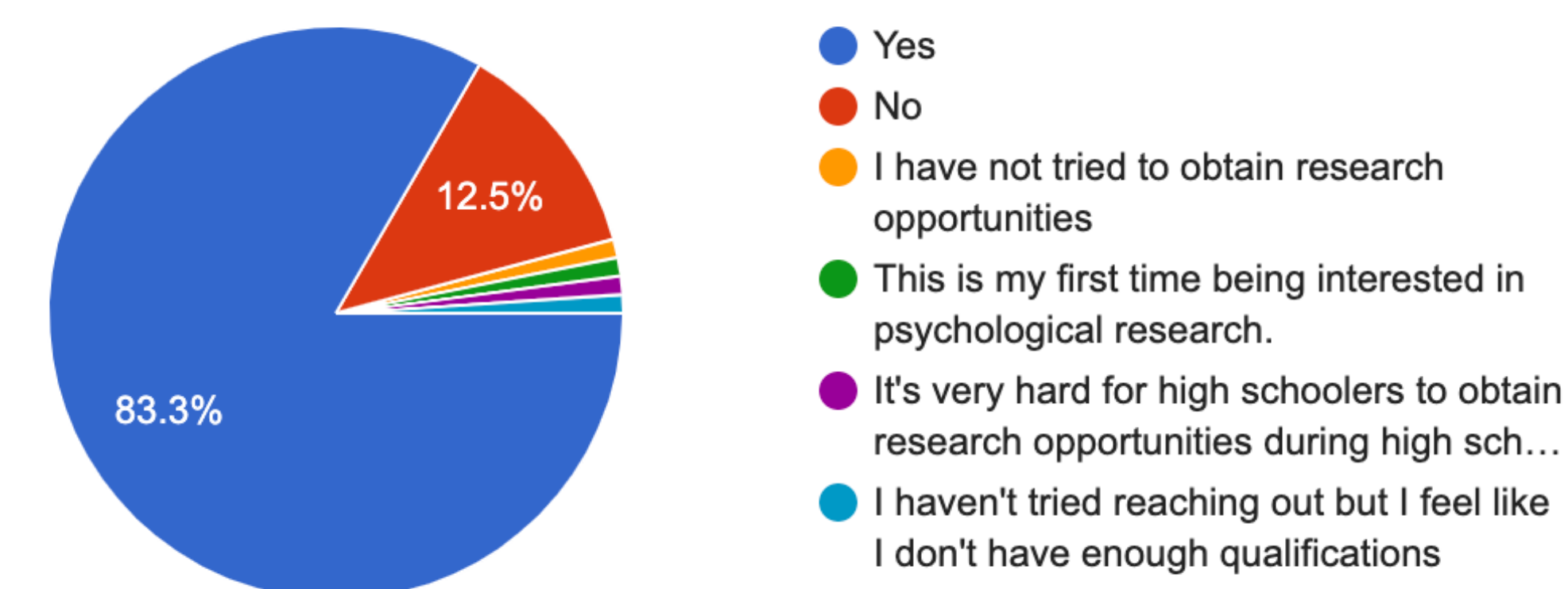
The survey garnered 96 participants within the span of a two-month data collection period. Results for the six survey questions are as follows:

•**Which state are you in?** 56 respondents were from 21 of 50 U.S. states. The remaining 40 respondents were from 10 other nations: Bangladesh, Canada, Mauritius, Morocco, Nepal, Philippines, Russia, Saudi Arabia, Sweden, and United Arab Emirates.

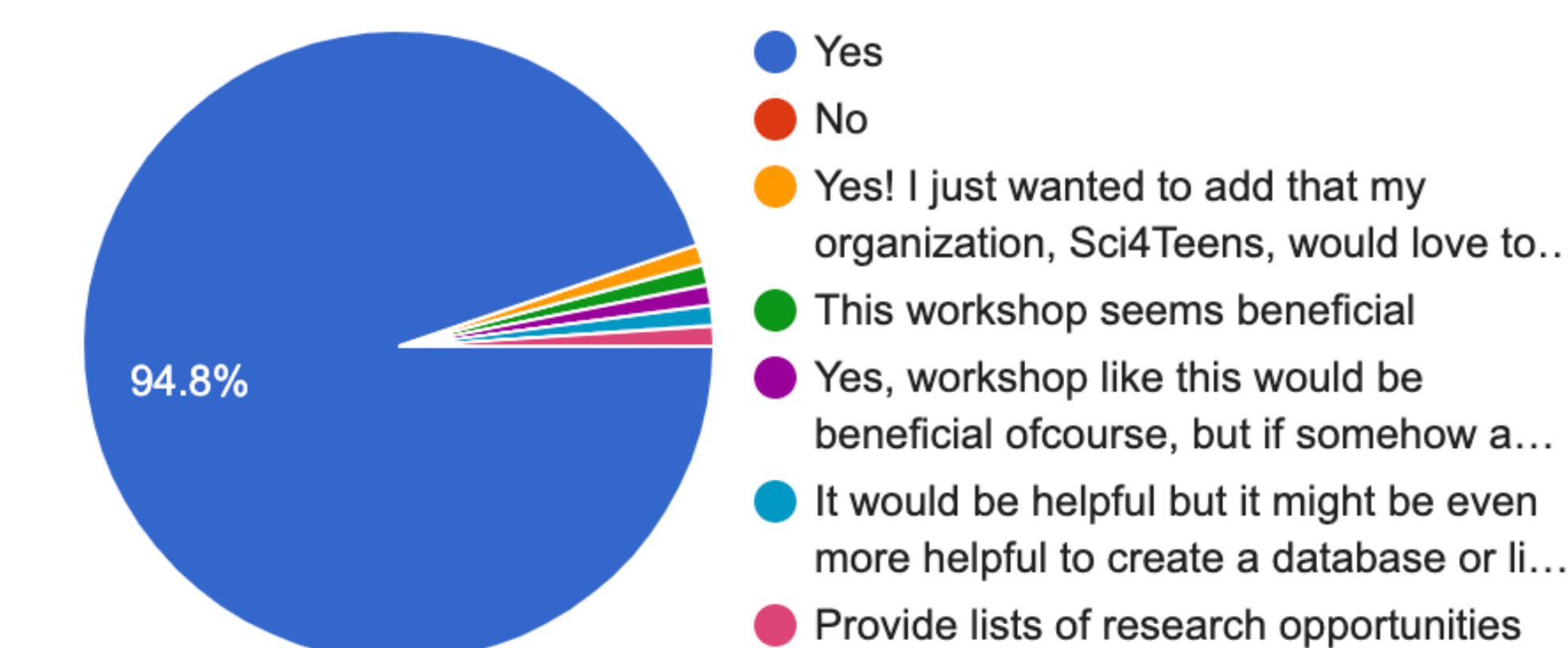
•**What high school year are you in?** 11.5% in Year 1, 24% in Year 2, 22.9% in Year 3, and 41.7% in Year 4.

•**Are you interested in a workshop on doing research?** 99% of participants said Yes.

•**Have you struggled to find a mentor in the past year?** 94.7% of participants said Yes.



•**To find a mentor, have you had to reach out beyond your local community?** 83.3% of participants said Yes.



•**Do you think a workshop would be beneficial to your learning about research?** 94.7% of participants said Yes.

Furthermore, some memorable responses to the short response prompt include:

- “It’s very hard for high schoolers to obtain research opportunities during high school. There are almost no opportunities.”
- “A workshop would be beneficial of course [...] Unlike the U.S., my country doesn’t offer any research opportunities for high schoolers, and that’s why I struggle finding research opportunities at a local level.”
- “I haven’t tried reaching out, but I feel like I don’t have enough qualifications.”

DISCUSSION

- The survey findings characterized the difficult state of high school research opportunities not only across the nation, but across the world, as students are pushed to make drastic communicative efforts in attempts to obtain opportunities—a shortage exacerbated by the COVID-19 pandemic.
- The great diversity of international participant location, on top of the 83.3% of students (N=80) reaching out beyond their local location to obtain a research mentor, reinforce the international nature of this issue.

A 99% interest rate of students (N=95) in research resources to obtain support in mentor connection served as reasoning for the development of a helpful article and research video.

- An article, published on the Psychology Teacher Network of the American Psychological Association (Caballo and Takooshian, 2021), was written to summarize the findings of the mentioned survey and set the precedent for more faculty and organizational support for aspiring high school researchers.

- A thirty-minute video was recorded and published as part of the Fordham Institute for Research, Service, and Teaching (FIRST), in which three speakers discussed effective strategies, resources, and mindsets that high school students can utilize to obtain research opportunities. To evaluate the effectiveness of the video as a supportive resource, a new survey regarding the effectiveness of the video will be in circulation

More action to support aspiring high school researchers should be of higher consideration in the future, especially by organizations that have the capability to do so.

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