

# Adapting the YPAR Process Template to an Out-of-School and Virtual Research Training Program with High School Students

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## BACKGROUND

- MYHealth is an out-of-school, virtual program where high school students from Southeast Michigan are trained to be co-researchers on MyVoice, a national text message poll of youth [1, 2]
- MYHealth focuses recruitment on youth from groups that have been historically underrepresented in health research and health research careers [1]
- Youth Participatory Action Research (YPAR) principles guide the MYHealth curriculum, allowing youth to develop and complete an adolescent health-focused research project [1]

## METHODS

- Between September 2022 and May 2023, 23 high school students were enrolled in MYHealth Impact Projects, the academic year program
- Impact Projects students were split into three groups of 7-8, for 17 online sessions where they completed an adolescent health research project
- The existing YPAR Process Template (YPT) [3], which evaluates the use of YPAR processes in high school classrooms was adapted for use in MYHealth Impact Projects
- The adapted YPT was reviewed and continuously updated by a team of 5 undergraduate research assistants, a program manager, and the PI
- Five MYHealth team members independently coded audio-video recordings of 15 Impact Projects sessions using the adapted YPT. In addition to numerical ratings, team members documented field notes for some YPT items
- The intraclass correlation coefficient (ICC) was used to evaluate inter-rater agreement and reliability of the adapted YPT based on video recordings from one group coded in pairs
- Descriptive statistics and the ICC were calculated for scores within each of 5 subscales of the adapted YPT using RStudio

## FINDINGS

**Table 1: Codes and subcodes of the Adapted YPAR Process Template (YPT)**

Scale (# of subscales)	Subscale Examples	Ratings
Training and Practice of Research Skills (6)	<ul style="list-style-type: none"> <li>• Identify problems or research questions</li> <li>• Learn about and/or practice data collection</li> <li>• Learn about and/or practice interpreting data</li> </ul>	0: Was not a goal of this session 1: No interactions observed 2: 1-2 interactions observed 3: 3+ interactions observed
Promoting Strategic Thinking (9)	<ul style="list-style-type: none"> <li>• Discuss strategy about how to make change in community, schools, policies, etc.</li> <li>• Analyze how to develop alliances and communicate effectively with stakeholders</li> </ul>	
Communication Skills (2)	<ul style="list-style-type: none"> <li>• Practice formal presentations</li> <li>• Share ideas and perspectives out loud</li> </ul>	
Group work - Opportunities and Guidance (4)	<ul style="list-style-type: none"> <li>• Engage in productive group processes</li> </ul>	0: Was not a goal of this session 1: No group work during session 2: A quarter of the total class time 3: Half of the total class time 4: Most of the class time
Student Engagement (2)	<ul style="list-style-type: none"> <li>• Active vs. passive engagement</li> </ul>	0: >50% distracted or disengaged 1: >50% passively engaged 2: >50% actively engaged

The adapted YPT includes includes 5 unique scales with varying numbers of subscales is reflected in Table 1. Within each subscale, raters selected the appropriate score from the rating scale (e.g., 0-3) based on student interactions observed in the Impact Projects session recordings.

**Figure 1: YPT Scores by Subscale across 15 Impact Projects Sessions**



### Field notes from YPT ratings with associated scores:

**Training and Practice of Research Skills:** "Students learned how to write and what is a good question and the strength and weaknesses based on the type" (score = 1)

**Promoting Strategic Thinking:** "Students discuss about root causes that they want to learn more about such as anxiety and body dysmorphia. They also discuss about the root causes of anxiety that are seen in students" (score = 3)

**Communication Skills:** "Students frequently shared their ideas throughout this session regarding their research articles and what can be done to learn more information or how we can help those who are struggling with certain issues" (score = 3)

## CONCLUSIONS

- The adapted YPT had a high level of interrater agreement indicating retained instrument reliability of the adapted YPT
- The field notes collected using the YPT provided additional information about specific observations (e.g., which activities, during which sessions) of YPAR principles throughout the Impact Projects
- Based on subscale scores, YPAR processes were utilized throughout the Impact Projects program where students completed an adolescent health-focused research project
- From these preliminary results, we believe the adapted YPT may be appropriate for out-of-school virtual programs like MYHealth Impact Projects

## NEXT STEPS

- The MYHealth research team will apply the YPT to the remaining Impact Project recordings from the 2022-2023 program (completed in May 2023)
- A mixed methods analysis will be conducted to integrate findings from both qualitative and quantitative data from the adapted YPT
- The adapted YPT will continue to be used in future years of the MYHealth program

## REFERENCES

- [1] Chuisano SA, et al. A protocol of the MYHealth Research Training Program for high school students. Preprint 2023. doi:10.1101/2023.02.02.23285366
- [2] DeJonckheere M, et al. MyVoice National Text Message Survey of Youth Aged 14 to 24 Years: Study Protocol. JMIR Res Protoc. 2017 doi:10.2196/resprot.8502
- [3] Ozer EJ, Douglas L. Assessing the Key Processes of Youth-Led Participatory Research: Psychometric Analysis and Application of an Observational Rating Scale. Youth & Society. 2015 doi:10.1177/0044118X12468011

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