

The Impact of Utilizing Youth Participatory Action Research to Engage FFA Members in Cross-Chapter Collaboration

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Abstract

This study explores the perceptions of FFA members from two urban FFA chapters in a midwestern state who worked together on a Youth Participatory Action Research (YPAR) project. YPAR is a participatory-based research method in which youth are partners and leaders of the research, developing and implementing the research. The project was completed virtually using Zoom, as the two chapters were too far away for in-person collaboration, only meeting in-person once over the course of the semester project. The case study includes interviews with the youth participants explaining how the YPAR experience impacted their perceptions of FFA and growth in knowledge and skills. Results reveal that even though the project was not completed, the participants expressed multiple knowledge and skill changes from their participation, providing new frames in which to understand the world and developing an increased sense of agency. In addition, the project resulted in an increase in sense of belonging within their state FFA association but not within the national FFA association. Findings provide information about what participants found most impactful about the experience that can be used for replicating YPAR with other FFA audiences.

Introduction

While many career fields are stagnant or declining, agricultural science (ag-science) is expected to grow by 6% between 2022 and 2032, which is faster than average (U. S. Bureau of Labor Statistics, 2023). However, the projected field of agricultural-related science and engineering job openings is already more significant than the estimated number of college graduates to fill these positions (Fernandez et al., 2020). Of those students enrolled in four-year degree agricultural STEM programs, over 66% are white, non-Hispanic (Meeks et al., 2019). As with all science and engineering fields, individuals employed in ag-science fields are still predominantly white and male (National Science Board, 2018). At the same time,

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FFA participation has been linked to ag-science career interests and STEM-specific critical thinking and problem-solving (Phelps et al., 2012; Swafford, 2018; Talbert & Balschweid, 2006).

While FFA has shown success in increasing the desire of high school students to pursue degrees and careers in ag-science fields (Mouser et al., 2019), creating opportunities that lead to developing college and career readiness (Copeland et al., 2020; Latham et al., 2014), FFA's chapters' member demographics, which are often less heterogeneous than their associated communities (Lawrence et al., 2013), suggest that the FFA may not promote an ag-science identity equally for all current and potential members. This work explores how employing Youth Participatory Action Research may enhance agricultural education within FFA.

Sense of Belonging

Part of Self-Determination Theory (Deci & Ryan, 2000) is the human desire to relate to others. Through the years, belonging has been studied extensively in both school and out-of-school time settings. Goodenow (1992) terms sense of school belonging as the subjective feelings of students in relation to their peers, teachers, and school environment. Akiva et al. (2013) cite both concepts in their work on belonging in out-of-school time settings. Findings link a sense of belonging to academic motivation, engagement, and participation in schools (Goodenow, 1992; Goodenow & Grady, 1993) as well as the frequency of activities and a welcoming atmosphere in out-of-school settings (Akiva et al., 2013). With components both within school and after school, sense of belonging within FFA may play a role in FFA members engagement within the organization.

Youth Participatory Action Research

Youth Participatory Action Research (YPAR) is a research methodology that engages youth who are not professional researchers in the formal research process at each level, and centers the decision-making power with the youth, as they investigate an issue that affects their lives and work towards learning more about the issue and developing ways to address the issue and make positive social change. YPAR can be an innovative tool within education in general (Anderson, 2020; Keddie, 2021; Ozer et al., 2010) and the STEM learning environment specifically (Jacquez et al., 2020). Youth as active partners in research is found in community-based participatory research practices used in public health (Branquinho et al., 2020), participatory action research practices (Shamrova & Cummings, 2017), and critical youth studies (Quijada Cerecer et al., 2013). FFA is well-suited for the use of YPAR because it straddles both the formal and informal agricultural education space.

YPAR is particularly powerful during the developmental period of early adolescence (ages 10-14) and especially during middle adolescence (ages 15-19) (Ballonoff Suleiman et al., 2021), the ages of most FFA members. Adolescence is a time when youth are engaging independently from their parents and other adults, and YPAR can draw upon their expertise to address areas of society and teen life less familiar to adults (Ozer, 2017). Cognitive advances during adolescence create a greater understanding of abstract concepts like society, organizational systems, injustice, and fairness (Harrison, et al., 2019). YPAR has been found to help youth manage bias while being aware of their own emotions and personal experiences as their source of motivation, and also being open to data or reflection that differs from their personal experience (Kirshner et al., 2011).

The actions that youth generate and employ based on YPAR may be particularly meaningful for historically marginalized youth's sense of belonging. It has been argued that creating institutional structures in educational spaces for young people to make changes to inequitable systems is key to Black youth's sense of belonging in educational spaces (Gray et al., 2018). Thus, this may also be true for historically marginalized members of the FFA.

YPAR describes an engaged process in which youth are partners in research with adults. It relies upon adults to share power, facilitate conversations, and create a shared sense of identity as a team with the youth (Malorni et al., 2022). YPAR benefits are bi-directional, with adults reporting impactful changes to their knowledge, attitudes, and practice from their work with youth (Kennedy, 2018). However, many studies that consider themselves YPAR only involve youth as participants and not as partners (Jacquez et al., 2013).

Youth Participatory Action Research Conceptual Framework

Branquinho et al. (2020) developed a framework for YPAR work, including 8 steps. The first stage is *raising awareness* both among adults to the process of working in partnership with youth (both challenges and opportunities) and among youth to the process of YPAR and the research topic. The second stage, *capacitation*, involves empowering youth with the skills necessary to complete the project while building the skills of adults for working with youth as partners. The third stage, *design*, explains that youth should be involved in designing the research project from the beginning and be aware of and involved with all aspects of the project throughout the stages. The fourth stage, *motivation*, reminds adults that young people need relationships with adults and other youth members where they feel trusted and comfortable sharing their voices. The next stage, *implementation*, describes the completion of the research activities by the youth. Next, the framework includes *evaluation* of the data collected, *dissemination* through presentations, and *replication* to other levels and other spaces.

Objectives

The objectives of our study were to:

- 1) Describe the impact of a YPAR participation on FFA members' perceived sense of belonging in the FFA;
- 2) Describe the impact of YPAR participation on FFA members' perceived skills and abilities; and
- 3) Describe the impact of YPAR research stage completion on creating action changes or changes to policies, events, and expectations within the local and state FFA organizations.

Methods

This research uses a qualitative research design and implementation approach (Merriam & Tisdell, 2016) to explore the impact of a YPAR project completed between two FFA chapters in a midwestern state over the course of the spring 2022 semester using data from post-program interviews.

Participants

The two FFA chapters in a midwestern state included one from a large metropolitan area representing a college preparatory high school with an agricultural-centered curriculum and one from a midsized community in which 39% of the students identify as a race or ethnicity other than white. Among FFA chapters, this first chapter is from one of the state's largest school districts with an agricultural education program and has one of the most diversely identifying chapter memberships, according to the state FFA association.

While a total of eight FFA members (four from each chapter) participated over the course of the project, six members (three from each chapter) were primarily involved. All but one youth were seniors in their last year of high school; the remaining youth was a junior. Half of the youth identified as non-white and/or Hispanic.

YPAR Process

Each week, members from the two FFA chapters met on Zoom. The participants met at their schools and joined from the same room using the same computer camera and microphone. The researchers joined

separately from various locations. During the first virtual meeting, we began *raising awareness* by first offering an academic article about diversity and inclusion within the FFA to the YPAR group to read and discuss a Journal of Agricultural Education article about the experience of urban students at the National FFA Convention (Martin & Kitchel, 2014). We then invited the authors of the article to join us via Zoom to answer questions from the youth. In addition, a former FFA national officer met with the YPAR group. To prepare for the guests, the YPAR members developed interview questions and practiced the research skill of interviewing.

Besides practicing interview techniques, the researchers helped *build capacity* in research skills by providing lessons on observation practices and focus group facilitation. This was done in tandem with the *design* of the research question and collection methods in order to provide skills based on the questions and methods determined by the group. The members developed the research question: *To what extent do students feel like they have a "place" in FFA? And why do they feel this way?*

Their research design included visiting a total of 6 schools and holding focus groups with 1) students in agricultural education classes but not active in FFA and 2) students in agricultural education classes and active in FFA. The YPAR group developed the focus group protocol and practiced with students from their own schools. As a first step to *implementation*, they developed and led a presentation for the Illinois DEI Task Force to ask for funding to cover transportation to the schools for the focus groups.

Reflexivity

Our research team includes five members. One researcher has a background working with positive youth development and the 4-H program and is currently an agricultural education teacher educator. She identifies as a White woman who is part of a transracial family. While never an FFA member or an advisor, her family includes former FFA members and FFA advisors. The next researcher was unfamiliar with FFA prior to this study but has a background studying positive youth development and the 4-H program. She identifies as a Black woman. The third researcher is a former FFA advisor and current agricultural education teacher educator. She identifies as a White woman. The fourth researcher is also a former agriculture teacher and FFA advisor who identifies as a White man. He has experience with urban agricultural education. The final researcher has a background in youth development and community organizing from a social justice foundation. Prior to this research, she was not familiar with FFA. She identifies as a Black woman.

Data Collection

All YPAR meetings were recorded using Zoom video and audio recording and transcription tools. The members of the research team all took field notes during the meetings as well. At the end of the semester, members of the research team interviewed six of the eight members of the YPAR group. The six members interviewed were the members most often attending YPAR events, adding to the credibility of the interview data. To protect the identities of the individuals, we only refer to them by their participant ID as their experiences with YPAR were very public, and their combinations of gender and racial/ethnic identities are unique.

Interviews took place virtually using Zoom. Interview questions were adapted from questions piloted with Illinois FFA officers by the researchers prior to the start of the YPAR project to further understand perceptions of FFA participation and the common verbiage used by FFA members to describe their experience. The questions were adapted through a review of the YPAR process the group completed over the course of the program timeline.

The interview protocol included questions about participants' feelings of belonging in FFA at the chapter, state, and national levels, as well as a comparison to their sense of belonging in other youth organizations. Questions also asked participants about their perceptions of the virtual YPAR experience

and what they saw as the benefits and challenges. Other example questions that elicited data relevant to the current study included (a) *How do you describe what you are doing in your YPAR group to your friends?* and (b) *We are planning to extend this to other groups. What would be tips for future YPAR groups in FFA?*

Part of the interview protocol included asking participants to graph their sense of belonging in FFA at the local, state, and national level from their time joining FFA to their time joining YPAR to the current time. The graph was displayed on the computer screen, and participants had the option to use the Whiteboard tools to draw their own lines, or they instructed the interviewer to draw the lines for them. During the interview, participants were also given a list of ten different aspects of the YPAR experience that they ordered from the one that was most influential to the one that was least influential. Interviews were recorded and transcribed first using Zoom and then compared to the audio of the interview to correct the automatized transcription errors.

Data Analysis

The interview data was analyzed independently from the artifacts collected from the YPAR meetings and used in the *evaluation* step of the YPAR experience. Transcripts were uploaded to the Dedoose online qualitative analysis software, allowing connection of the interview transcripts with the graphs and tables completed during the interviews. The qualitative computer software was used to store and organize the data, allowing all researchers searchable access to the codes and memos in the collaboration (Creswell & Creswell, 2018). The data was coded inductively for themes related to the objectives of the study by four researchers. The researchers began by coding one interview to develop a consensus of codes through investigator triangulation (Merriam & Tisdell, 2016). Interview responses were cross-checked with data from the YPAR meeting recordings to further add to the credibility of the findings. Quantitative data from the graphs and tables were compiled to determine mean responses.

Findings

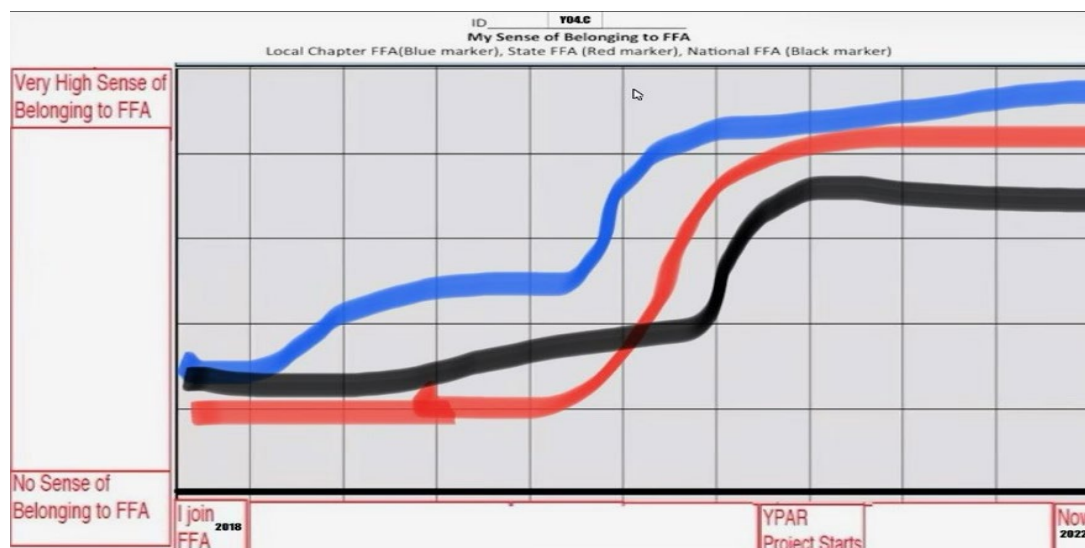
Sense of Belonging

Our first research objective was to determine if participating in YPAR impacted their sense of belonging in FFA. During interviews, participants used a graph to track their sense of belonging for local, state, and national FFA from when they joined FFA, through starting the YPAR project, to the time of the interview. The participants were asked to use blue to represent a sense of belonging in their local chapter, red for state FFA, and black for national FFA.

When asked about their sense of belonging when they joined FFA, all interviewees except one had a low sense of belonging to local, state, and national FFA. All three lines started at or near the bottom of the graph.

Figure 1

Sample FFA Sense of Belonging Interview Graph

**Local FFA Chapter Sense of Belonging**

All interviewees saw their local sense of belonging rise to very high levels between the time they joined FFA and the time of the interview. All participants reported their local sense of belonging as higher than their state and national levels of belonging throughout their FFA journey. In describing their sense of belonging in their local FFA chapter, Participant E said:

I've found a home in FFA, and like I found that sense of belonging in FFA and once you find that sense of belonging you kind of just like stick with it...like when you find that sense of belonging in your family, you're comfortable with them and you want to spend time with them. (Participant E)

Participant F described their sense of belonging in their local FFA chapter as "I never feel like I'm being judged for something I say, and I think that's what belonging is, just making you feel safe in who you are when you're there".

Changes from YPAR on local FFA chapter sense of belonging. Starting to participate in the YPAR project increased members' local sense of belonging. At the YPAR project start, four of the six included an extra increase in local sense of belonging. Both participants that did not have an increase were already at the high end of very high and did not have room to increase.

Participant E (mentioned earlier) described their local sense of belonging increasing because YPAR changed their focus in FFA from specific events to the organization itself, stating:

From like "I joined FFA" to "YPAR" [on the x-axis of the graph representing time], I feel like I was kind of focused on myself and like what- what was happening to me, and like why I'm going to these events, and what I'm taking away from these conferences and convention, and then, once YPAR started, I kind of looked at more what is... "Why is everyone else in FFA?" (Participant E)

State FFA Sense of Belonging

All participants graphed their state sense of belonging lower than their local sense of belonging. Four of the six were at least two blocks lower than their local sense of belonging. When comparing their experiences in their local FFA chapter to state FFA opportunities, participants felt that their urban backgrounds led to differences from the other FFA members they met at section or state FFA events. One YPAR participant explained their sense of belonging when interacting with members from other chapters.

Sometimes I feel that sense of non-belonging, just because they all can hold conversations about like the price of corn, or they just have this different level of knowledge about agriculture that I don't. And so I would say that the majority of my time, I feel like a strong belonging, just because FFA covers a wide range of agriculture, as well as covering leadership and I feel belonging in that, but in this Section, like with Section Presidents and then in different groups where these people or the majority like grew up on production agriculture, just that different level of knowledge of agriculture, that's where I feel like I don't belong as much. (Participant E)

Changes from YPAR on state FFA sense of belonging. The start of the YPAR project coincided with an increase in state sense of belonging. All participants included at least a small increase at this point. In their interviews, participants discussed how much they liked working with people from another FFA chapter in their state and getting to know these individuals, and sharing experiences. The participants referenced no specific points of time or events during YPAR that led to their increased sense of belonging, but more the opportunity to have a place where they felt safe to share their thoughts and opinions with others who may have had the same or similar experiences. One youth said she increased her state FFA sense of belonging because YPAR participants in the other chapter “told me that I belong in FFA, even though I might not have the same experiences as them or they might have more experiences than me... those interactions within YPAR definitely helped.” (Participant C). This participant also explained that the nature of the YPAR weekly meetings over time contributing to their sharp increase in their sense of belonging at the state-level:

Then our weekly meetings, the kind of brainstorming about it [the focus of the topic] also showed me like everybody can recognize differences in like the different even from the different questions that we wanted to ask or like how we seen different questions different ways, because we were from different places um I feel like that also showed me too. (Participant C)

Participant A also referenced the importance of the conversations that occurred between the two chapters in the YPAR space, explaining:

When I got to talk to [other FFA chapter in YPAR] I was able to share experiences with them and not only them, I was also able to meet other people from Illinois that have shared experiences like that, that not only I have had, but other people in my chapter have had, and we were able to relate to some things and being able to stick with them and stick together, people were able to empower each other and that was something special. (Participant A)

This idea of “being able to stick with them and stick together” and “empower each other” also was echoed from Participant F. They answered the interviewer’s question around YPAR and their sense of belonging by referring to their graph, stating:

I know we just talked about the graph... I would say that I definitely felt it [YPAR] made me feel more confident because I saw that there was people that were like me and wanted

there to be change and not just inside my chapter. It kind of helped me realize that, hey my chapter is not just crazy, there's like other people that realize there's issues out there too. That was really cool and I had seen that before, but not to the extent of us all being able to come together for YPAR, so that was cool. (Participant F)

Their jump in the sense of belonging at the state-level was refreshing to see in the interview.

National FFA Sense of Belonging

All participants also graphed their sense of belonging with national FFA as similar to their sense of state FFA belonging. Participant F put national slightly higher than state because “I just feel like there’s more people so there’s less attention and I feel like there’s more chances of me to be able to relate to somebody.” Participants from one of the two chapters specifically related to their negative experiences at the national FFA convention and the response of National FFA to their experience. Participant D shared their experience being called racial slurs by other students at national convention saying “I remember hearing just a bunch of slurs...I just got called all of these names for being Hispanic, for being Mexican, for looking different.” From this experience, Participant D said that their sense of belonging “just plummet[ed] down the drain”.

Representatives from National FFA visited the chapter to hear their experience after this convention. Participant A said “for national, [my sense of belonging] is low because when we did have conversations with representatives from national, they really didn’t do anything about it and it felt like they didn’t really care.”

Changes from YPAR on national level FFA sense of belonging. Participating in YPAR did not impact participants sense of belonging at the national level. Based on the way in which YPAR increase participants’ sense of belong at the state-level, we suspect that the national level have changed if the YPAR group included participants from a chapter in another state that cared about similar issues.

Participant Skills and Abilities

To assess the second objective, changes in skills and abilities, we looked for instances in the interviews in which participants talked about changes in their thoughts and actions. In the participants’ descriptions, they reflected on understanding differences between individuals and finding a new frame from which to view the world. One participant described the experience as follows:

We looked at the different parts of why people act the way they do and what systems, and different activities, that make people act the way they do...it was all just very interesting learning why people do what they do, how people do what they do and how that affects other people in their organization. (Participant E)

Multiple participants referenced how better understanding a new frame of the world was linked to the process of designing the research study. Participant C explained that:

I've had conversations with my advisors and with my parents about the way that I deliver what I mean to say, and I think YPAR helped with that to make me reel back, think, and really understand how this person is gonna take and reciprocate what I'm saying. So that's one thing. Another thing was just doing research now in general, was when we went over the basics of research, and how you're supposed to label your questions and make your questions in a way where it's not so targeted that... whatchamacallit... participant wasn't gonna like close down and feel uncomfortable and not want to continue, so that really changed. (Participant C)

Participant B also referenced how creating interview questions for guests and the focus groups they had planned to do impacted them:

Our meetings where we would like brainstorm the kind of questions to ask, I think those were really influential because it made me think about our organization on a deeper level, you know more than just like what we saw it's like, why do we think that happened, you know. Why do we- like what are other factors that influence that? So I think it's the like way we had you guys encourage us to think deeper about our experiences to help us develop those questions and everything. (Participant B)

Similarly, Participant D reported:

I for sure always want to keep a part of YPAR with me and a lot of the experiences and things I learned from YPAR like the interviewing skills, and how to take notes, and how to be objective... How to check our bias. I got to learn a lot from the different people in that group because a lot of them experienced different things that I did. (Participant D)

In addition, participants discussed the responsibility given to their YPAR group while working with the university researchers and described an increased sense of agency from the experience. Another participant described the experience as stated below:

It was really cool to be like, given the responsibility, like having someone trust and believe in us that we can participate in this research and change the way people look at things and maybe encourage people to make changes to improve other people's sense of belonging and sort of advocate for others. (Participant B)

Notably, Participant F underscored that the YPAR space was a learning space for all involved, including the university researchers reporting: "The experience [YPAR] taught me a lot, and I'm sure it taught all the other people a lot and I'm sure it taught you guys a lot too, the professors."

YPAR-related Action Changes

In assessing the third objective, this YPAR project completed the first part of the *Implementation* step by securing funding to collect focus group data. However, due to timing, no focus groups were completed. Some of the participants referenced the presentation itself as an impactful action. After finishing the research design, the students put together a proposal to the state board to ask for funding to visit schools to collect focus group data. They pitched their research questions, how they came to those research questions, and their research design. Participant B referenced how the action of preparing the proposal for the board was important, stating: "the meetings before where we like made the slides and decided who was going to say what, so I think, I've never done a proposal before, and I don't know if I'll ever do a proposal after that." Participant F also referenced this as an important action as well stating, "presenting our proposal was also very interesting because it was the first time it felt like it was just the students because it was us students presenting it to the state board. That was a really interesting experience."

The project shifted, and participants created an activity room during the Illinois FFA convention that included interactive displays related to diversity and inclusion within FFA including a display on the NFA and tables to have conversations with other members about issues related to diversity and inclusion in FFA. While the state convention experience was not directly linked to YPAR, the YPAR collaboration led to the two chapters creating the opportunity. Three interviewees mentioned the state convention room, and one specifically said that they thought the experience would not have happened without YPAR. Participant D said "I put state [belonging higher] because when we did the room, that's where it really solidified like that place underneath my local." This participant linked the two actions saying:

YPAR kind of took that over because the majority of us were in YPAR. And so, that was the distinction that like my friends [in an FFA chapter not in YPAR] didn't get. And so I just labeled it as trying to create change in a room where nobody wants to change. (Participant D)

Being in YPAR and running the room were two actions this interviewee saw as a key difference in their experience at the State Convention because “I was more involved. I was doing things with YPAR. I was running the room. So, people got to see me more than just as a participant, and more as a leader.”

Finally, numerous interviewees reported action changes in terms of how they equated YPAR with making positive change in FFA. Below are a few examples of how they discussed an intention to act:

- YPAR is a group, where we kind of I would say, where we brainstorm to change the future in FFA or not, I feel like not even just in FFA though, I feel like just in our generation. I feel like YPAR is a group, where you go to change things. (Participant C)
- Participant D said “I explained it [YPAR] to my friends was just understanding diversity and ways to change with a group that does not want to change. That's what I labeled YPAR.”
- Getting the opportunity to be involved in, like an actual research project, myself. I think that was a very impactful and like empowering experience to know that I can do something as important as this to try to make a change in an organization as big as national FFA. (Participant B)
- Participant A said “I explained to them that it's research about diversity and inclusion, but more importantly, how to change an organization that hasn't had a change since it really started.”

Thus, these YPAR members were still defining the YPAR space in and of itself as a space for action change despite not getting to the step of executing their research project.

Impactful Aspects of the YPAR Experience

During the interviews, we asked participants which aspects of the YPAR process were most impactful. The results are listed in Table 1. The two highest means for aspects of YPAR that participants found important were collaborating with students from other schools and collaborating with researchers. As we consider further YPAR projects in FFA contexts, knowing that collaboration with students from other schools, in this case requiring virtual communication and collaboration with researchers, are both important for future projects. Participants stated that even though collaboration happened in a virtual manner, it was still more impactful to work with students from another FFA chapter. Participant E reflected on how collaboration with other students was:

Really impactful for me and significant in my growth in FFA, but then, also my growth as like a human being and realizing that not everyone has the same experience as me, like all those different things came from collaborating with students from other schools on this YPAR. (Participant E)

Unbeknownst to the researchers, we learned during the interviews that the two chapters were also forming connections when someone was missing from a meeting. One participant reported:

We had to like communicate with them outside of the meetings, because we couldn't always meet up at the same time, which made it a little difficult, sometimes, and I think communicating outside of the meetings brought us closer together as like friends on a more personal level. and then we went and continue to do things like outside of YPAR and everything so. I think that was good for us. (Participant B)

In addition, the FFA members were impacted by the connection to the university researchers, perhaps because they were unique adults interested in the lives of the young people, different from the FFA advisors they saw every day or because the researchers had “credibility” coming from university settings and talking about research. Participant F, for instance, reported “it was just nice to know that these professors that don't really have any obligation to affirm my beliefs or to listen to me are listening to me and are hearing me and other students are hearing me too.” Either way, future partnerships with university researchers seem to have impacted the participants and should be considered for future YPAR work. Based on our interviews, however, it is important that the university researchers be personable and have some experience working with young people. Participant B explained their 10 rating by saying the university researchers “are adults and it's like slightly more intimidating and I could probably say, without a doubt, that I don't think I'd ever get the chance to meet with you guys and participate in this kind of thing without YPAR.” However, later in the interview, the participant also underscored the importance of the personal connection the university researchers created:

I enjoyed getting to meet the researchers and you guys are also easy to get along with and-and laugh and learn with, and it was a very enriching opportunity, because it's different than anything I've ever done before even, you know, with all of my FFA experience and everything. And even though some of the meetings were like late and I was tired and hungry, even though we had snacks, I think it was worth it. I think I wouldn't change anything. I had a good experience. (Participant B)

Table 1

Participant Responses to Impact of YPAR Processes

Part of YPAR Experience	Participant A	Participant B	Participant C	Participant D	Participant E	Mean Response
Collaboration with students from other schools	10	9	10	11*	9	9.8
Collaboration with researchers	10	10	8	10	9	9.4
Gaining information from “experts”	10	10	7	7	9	8.6
Learning about research methods	10	7	7	10	7	8.2
Designing your own research project	10	9	10	10	6	9.0
Analyzing data	10	7			8	8.3
Presenting your proposal		9			9	9.0
<i>Talking with FFA Representatives**</i>	9	--	--	--	--	9.0
<i>Opportunity to do research that could lead to change**</i>	--	10	--	--	--	10.0

*The scale given to participants was 1-10. However, this participant felt the experience was so impactful they rated it above the scale.

**Participants were given the opportunity to add their own options to the list. The responses added by individual recipients are included in italics and not considered in discussions of highest rated parts of the experience.

Conclusions and Recommendations

This YPAR project led participants on a journey to incorporate research strategies into their critical thinking and problem-solving approaches through (1) raising awareness of an issue and examining the issue from multiple perspectives, (2) increasing their capacity to apply research-based skills, (3) designing both a research protocol and an event to spread awareness of different FFA voices, (4) staying motivated while forming a team with members from a different chapter, and (5) implementing parts of their project.

Our project matches previous research on YPAR projects in that we did not complete all the YPAR steps in the original timeline (Bettencourt, 2020; Keddie, 2021). However, the commitment of the participants, their motivation and connection to each other as a team, and their reports of this project's impact on their thinking and actions far exceeded our expectations. Bertrand et al. (2017) discuss that the impact YPAR activities have on the participants is more than in the final dissemination of findings but in smaller learning opportunities along the way. Our project adds to the literature that involvement in research activities for high school students, even when not taken to completion, can lead to positive impacts. While we plan to continue the project, the original timeline coincided with the school year, and continuing involves losing students who graduate and including new students.

Suggestions for Future YPAR Use

Even with the challenges and incomplete objectives associated with this YPAR initiative, we believe that using YPAR to empower youth to use research and seek change in their communities is an important tool for youth organizations in general and FFA specifically. YPAR offered FFA members who felt like their voices were not always heard a forum to share their thoughts. National FFA has been working to address DEI topics within the agricultural education space; therefore, this project aligns well with initiatives and values within our discipline.

YPAR introduces youth to social science research, an often overlooked aspect of science. Social science also exists as one of the six categories for the national FFA Agri-Science Fair competition. YPAR could serve as a framework for SBAE teachers interested in expanding Agri-Science Fair projects. As FFA rules allow for the students to explore the same topic through different applications of the topic across multiple years, projects could build on student ideas during future years. As YPAR encourages students to seek information and opinions from multiple perspectives, it can increase student exposure to individuals with careers in agricultural-related fields. As the National FFA continues to promote supervised agricultural experiences (SAE) through the SAE for All initiative (National Council for Agricultural Education, 2023), YPAR may offer a unique way to create SAE opportunities for students.

Belonging in the FFA

Our research also discovered that FFA members see FFA at the local, state, and national levels as different concepts. Participants, both in the interviews and in the chart of belonging, distinguished between their feelings about their local FFA chapter, the state FFA association, and the national FFA association. Participants did not hold the same levels of belonging for the three organizations. Sense of belonging for youth in out-of-school time activities is often related to youth feeling they have opportunities to make choices (Akiva et al., 2011). The participants may have felt their experiences related to choices in their state organization and not the national organization.

As FFA continues to address diversity within the organization, the benefits and consequences of this split sense of belonging could provide insight into how members see the organization and how the organization can adapt to members' needs. As Gray et al. (2018) found, offering youth the ability to make changes in educational spaces with perceived inequitable systems is important for youth sense of

belonging within the organization. YPAR may be an opportunity for youth to use research processes to understand the existing institutional structures and discover new and innovative ways for FFA to move forward.

Recommendations for Policies and Programs

The FFA members participating in YPAR felt the most impactful aspect of YPAR was collaborating with students from a different chapter. While they enjoyed the YPAR process, it seemed that the opportunity to interact in a safe environment was more important than the general content of the YPAR meetings and activities. If connecting with other FFA members from different chapters or backgrounds in a safe environment leads to an increased sense of belonging in FFA, perhaps other opportunities to increase connections in safe and supported ways would benefit FFA members. The YPAR participants in this study discussed forms of chapter exchanges to connect chapters from different backgrounds, such as pairing a chapter in an urban area with a chapter in a rural area.

YPAR is unique from most chapter exchanges in that chapter exchanges usually involve a one-time visit and overview of chapter activities. The YPAR experience provided students with longer term interaction to truly get to know the FFA members in the other chapter. The connection between members seems to happen almost as a side result of having an opportunity to work together. Other joint opportunities could be developed to lead to more extensive interaction between chapter members, such as joint service projects that address issues in the two chapters or joint agricultural outreach projects to teach other audiences about a shared aspect of agriculture.

Participants in the YPAR project also felt that their voices were heard when state FFA allowed them to create a space at the state convention to share their thoughts on diversity and inclusion within the FFA with other members and advisors. Since this time, National FFA has added an experience for urban chapters based, in part, on the work of the FFA members in this YPAR group. Further opportunities to bring issues of diversity and inclusion to the forefront of discussion and practice show members that the organization recognizes the issues as important and is working to educate others about the differences among and between FFA members, acknowledging that the organization is better when all members feel like they belong. We challenge state FFA organizations to develop their own versions of opportunities to showcase the importance of diversity, equity, inclusion, and access to the current and future members of their organizations.

References

- Akiva, T., Sugar, S., Smith, C., & Brummet, Q. (2011). Staff instructional practices, youth engagement and belonging in out-of-school time programs. *Paper presented at the 2011 American Educational Research Association Annual Meeting*.
https://www.youthpower.org/sites/default/files/YouthPower/resources/Akiva_.pdf
- Anderson, A. J. (2020). A qualitative systematic review of youth participatory action research implementation in U.S. high schools. *American Journal of Community Psychology, 65*, 242–257.
<https://doi.org/10.1002/ajcp.12389>
- Ballonoff Suleiman, A. B., Ballard, P. J., Hoyt, L. T., & Ozer, E. J. (2021). Applying a developmental lens to youth-led participatory action research: A critical examination and integration of existing evidence. *Youth & Society, 53*(1), 26–53. <https://doi.org/10.1177/0044118X19837871>
- Bertrand, M., Durand, E. S., & Gonzalez, T. (2017). “We’re trying to take action”: Transformative agency, role re-mediation, and the complexities of youth, participatory action research. *Equity and Excellence in Education, 50*(2), 142–154. <https://doi.org/10.1080/10665684.2017.1301837>

- Bettencourt, G. (2020). Embracing problems, processes and contact zones: Using youth participatory action research to challenge adultism. *Action Research*, 18(2), 153–170. <https://doi.org/10.1177/1476750318789475>
- Branquinho, C., Tome, G., Grothausen, T., & Gaspar de Matos, M. (2020). Community-based youth participatory action research studies with a focus on youth health and well-being: A systematic review. *Journal of Community Psychology*, 48, 1301–1315. <https://doi.org/10.1002/jcop.22320>
- Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). Sage Publishing.
- Copeland, B. A., Talbert, B. A., LaRose, S. E., & Russell, M. A. (2020). College and career ready? A snapshot of 12th grade national FFA members. *Journal of Agricultural Education*, 61(4), 90–108. <https://doi.org/10.5032/jae.2020.04090>
- Deci, E. L., & Ryan, R. M. (2000). The “what” and “why” of goal pursuits: Human needs and the self-determination of behavior. *Psychological Inquiry*, 11(4), 227–268. https://doi.org/10.1207/s15327965pli1104_01
- Fernandez, J. M., Goecker, A. D., Smith, E., Moran, E. R., & Wilson, C. W. (2020). *Employment opportunities for college graduates in food, agriculture, renewable natural resources and the environment: United States 2020-2025*. National Institute of Food and Agriculture. <https://www.purdue.edu/usda/employment/>
- Goodenow, C. (1992). School motivation, engagement and sense of belonging among urban adolescent students. *Paper presented at the Annual Meeting of the American Educational Research Association*, San Francisco. <https://files.eric.ed.gov/fulltext/ED349364.pdf>
- Goodenow, C. & Grady, K. E. (1993). The relationship of school belonging and friends’ values to academic motivation among urban adolescent students. *Journal of Experimental Education*, 62(1), 60–71. <https://doi.org/10.1080/00220973.1993.9943831>
- Gray, D. L., Hope, E. C., & Matthews, J. S. (2018). Black and belonging at school: A case for interpersonal, instructional, and institutional opportunity structures. *Educational Psychologist*, 53(2), 97–113. <https://doi.org/10.1080/00461520.2017.1421466>
- Harrison, L. M., Hurd, E., & Brinegar, K. M. (2019). Exploring the convergence of developmentalism and cultural responsiveness. In K. Brinegar, L. Harrison, & E. Hurd (Eds.) *Equity & cultural responsiveness in the middle grades* (pp. 3–22). Information Age Publishing.
- Jacquez, F., Vaughn, L., Boards, A., Deters, A., Wells, J., & Maynard, K. (2020). Creating a culture of youth as co-researchers: The kickoff of a year-long STEM pipeline program. *Journal of STEM Outreach*, 3, 1–11. <https://doi.org/10.15695/jstem/v3i1.02>
- Jacquez, F., Vaughn, L. M., & Wagner, E. (2013). Youth as partners, participants or passive recipients: A review of children and adolescents in community-based participatory research (CBPR). *American Journal of Community Psychology*, 51, 176–189. <https://doi.org/10.1007/s10464-012-9533-7>

- Keddie, A. (2021). The difficulties of 'action' in youth participatory action research: Schoolifying YPAR in two elite settings. *Discourse: Studies in the Cultural Politics of Education*, 42(3), 381–393. <https://doi.org/10.1080/01596306.2019.1696747>
- Kennedy, H. (2018). How adults change from facilitating youth participatory action research: Process and outcomes. *Children and Youth Services Review*, 94, 298–305. <https://doi.org/10.1016/j.chilyouth.2018.10.010>
- Kirshner, B., Pozzoboni, K., & Jones, H. (2011). Learning how to manage bias: A case study of youth participatory action research. *Applied Developmental Science*, 15(3), 140–155. <https://doi.org/10.1080/10888691.2011.587720>
- Latham, L., Rayfield, J., & Moore, L. L. (2014). Influence of FFA activities on critical thinking skills in Texas three-star FFA chapters. *Journal of Agricultural Education*, 55(5), 126–139. <https://doi.org/10.5032/jae.2014.05126>
- Lawrence, S., Rayfield, J., Moore, L. L., & Outley, C. (2013). An analysis of FFA chapter demographics as compared to schools and communities. *Journal of Agricultural Education*, 54(1), 207–219. <https://doi.org/10.5032/jae.2013.01207>
- Malorni, A., Lea III, C. H., Richards-Schuster, K., & Spencer, M. S. (2011). Facilitating youth participatory action research (YPAR): A scoping review of relational practice in U.S. youth development and out-of-school time projects. *Children and Youth Services Review*, 136, Article 106399. <https://doi.org/10.1016/j.chilyouth.2022.106399>
- Martin, M. J., & Kitchel, T. (2014). Barriers to participation in the National FFA organization according to urban agriculture students. *Journal of Agricultural Education*, 55(1), 120–133. <https://doi.org/10.5032/jae.2014.01120>
- Meeks, A., Jalili, D., & Ziegler, P. (2019). *Making connections: Agriculture STEM programs in the FAEIS survey* [Conference presentation]. NACTA 2019, Twin Falls, ID, United States. <https://faeis.cals.vt.edu/resources/presentations/nacta2019/NACTA2019-1.pdf>
- Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). Jossey-Bass Publishing.
- Mouser, D. M., Sheng, Z., & Thoron, A. C. (2019). Are agriculture students more career ready? A comparative analysis of Illinois juniors. *Journal of Agricultural Education*, 60(2), 15–27. <https://doi.org/10.5032/jae.2019.02015>
- National Council for Agricultural Education. (2023). *Supervised agricultural experience (SAE) philosophy and guiding principles*. <https://thecouncil.ffa.org/sae/>
- National Science Board. (2018). *Women and minorities in the S & E workforce*. Science & Engineering Indicators 2018. <https://www.nsf.gov/statistics/2018/nsb20181/report/sections/science-and-engineering-labor-force/women-and-minorities-in-the-s-e-workforce>
- Ozer, E. J., Ritterman, M. L., & Wanis, M. G. (2010). Participatory action research (PAR) in middle school: Opportunities, constraints and key processes. *American Journal of Community Psychology*, 46, 152–166. <https://doi.org/10.1007/s10464-010-9335-8>

- Ozer, E. (2017). Youth-led participatory action research: Overview and potential for enhancing adolescent development. *Child Development Perspectives, 11*(3), 173–177. <https://doi.org/10.1111/cdep.12228>
- Phelps, K., Henry, A. L., & Bird, W. A. (2012). Factors influencing or discouraging secondary school students' FFA participation. *Journal of Agricultural Education, 53*(2), 70–86. <https://doi.org/10.5032/jae.2012.02070>
- Quijada Cerecer, D. A., Cahill, C., & Bradley, M. (2013). Toward a critical youth policy praxis: Critical youth studies and participatory action research. *Theory into Practice, 52*(3), 216–223. <https://doi.org/10.1080/00405841.2013.804316>
- Shamrova, D. P., & Cummings, C. E. (2017). Participatory action research (PAR) with children and youth: An integrative review of methodology and PAR outcomes for participants, organizations, and communities. *Children and Youth Services Review, 81*, 400–412. <https://doi.org/10.1016/j.chilyouth.2017.08.022>
- Swafford, M. (2018) STEM education at the nexus of the 3-circle model. *Journal of Agricultural Education, 59*(1), 297–315. <https://doi.org/10.5032/jae.2018.01297>
- Talbert, B. A., & Balschweid, M. A. (2006). Career aspirations of selected FFA members. *Journal of Agricultural Education, 47*(2), 67–80. <https://doi.org/10.5032/jae.2006.02067>
- U. S. Bureau of Labor Statistics. (2023). *Occupational Outlook Handbook, Agricultural and Food Scientists*. <https://www.bls.gov/ooh/life-physical-and-social-science/agricultural-and-food-scientists.htm>.