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Youth-driven Youth–Adult Partnerships: A Phenomenological Exploration of Agricultural Education Teachers' Experiences

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Abstract

This phenomenological study explores the dimensions of youth–adult partnerships (YAPs) in agricultural mechanics classrooms in three rural schools. YAPs presume a positive learning collaboration between young people and adults who work together to achieve meaningful community-based change. Previous research on the development of YAPs has focused on non-school settings. However, in these agricultural mechanics courses, as part of a safety-focused curriculum, teachers engaged students in a collaborative project to build and install cost-effective rollover protective structures (CROPS) for local farmers' tractors. Thus, the CROPS project provided a unique opportunity to explore the inclusion of youth-driven YAPs as an engagement model for teachers, students, and the broader community. The findings from this secondary analysis of interview data from CROPS project teachers are threefold. First, evidence emerged of the experiential, communal/collective, and youth-driven aspects of YAPs in teacher–student and student–student collaborations. Second, shifts in power balances present a key dimension of the youth-driven dimension of YAPs. Third, the CROPS project aligns well with a youth-driven YAP in that it promoted high-quality student engagement within the learning system. Finally, we discuss the implications for integrating YAPs into agricultural education projects and suggestions for further research.

Keywords: agricultural mechanics, phenomenology, youth–adult partnerships, experiential, communal, collective, youth-driven, cost-effective rollover protective structures

Agriculture ranks among the most hazardous occupations in the United States. Unlike the labor practices in other industries, a significant proportion of the workforce routinely exposed to the dangers of farm-work is under the age of 20 (National Institute for Occupational Safety and Health [NIOSH], 2014). In fact, farm jobs have the highest rate of fatalities and injuries of all types of teen employment. NIOSH estimates that nearly two million young people work and live on farms in the United States and that as many as 14,000 sustain farm-related injuries each year with almost 3,000 incurred during farm-work (NIOSH, 2014). Further, a child dies every three days from an agricultural-related incident in the United States, with 34% of deaths in the 16 to19-

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year old category (Goldcamp, Hendricks, & Myers, 2004). Moreover, 73% of youth farm-related deaths involve vehicles and machinery (Hard & Myers, 2006).

Educating young people on the importance of agricultural health and safety is profoundly important for bringing about safe behavioral practices in agricultural settings (Murphy, 2003). One viable route in which to do this is through high school agricultural education programs (Mazur, Cole, Myers, Swan, & Swan, 2010). Successful agricultural education programs utilize three important aspects: (a) classroom and laboratory instruction, (b) experiential learning with scaffolded supervision, and (c) leadership development as applied through activities sponsored by national agricultural youth organizations (Talbert, Vaughn, Croom, & Lee, 2007).

Health and safety education is one of the most important responsibilities of an agricultural educator. As parents have grown more aware of safety concerns, educators have come under additional pressure to teach their students how to use materials, tools, and farm equipment properly (Dyers & Andreasen, 1999). Young people are a primary audience for agricultural health and safety because they are more likely to change and will readily adapt to changes in behavior. Moreover, they can then educate adults, such as their parents (Mazur et al., 2010).

Tractor overturns are a leading cause of farm-related fatalities and injuries in the United States. In combination with the use of seatbelts, rollover protective structures (ROPS) are 98% effective at preventing tractor operator deaths from overturns and ejections from the tractor seat (Myers & Pana-Cryan, 2003). Therefore, researchers at the Southeast Center for Agricultural Health & Injury Prevention and the University Of Kentucky College of Agriculture evaluated the feasibility of involving high-school students and agricultural education teachers from three Appalachian county agricultural education programs in the construction and installation of cost-effective ROPS or CROPS, by using plans developed and tested by engineers at NIOSH (Mazur, Vincent, Watson, & Westneat, 2015). The CROPS project integrates a hands-on welding and construction project into current *Ag Power and Mechanic* course requirements. As part of this project, members of the research team provided agricultural teachers in three rural high schools with information, training, and materials to engage 82 high-school students in the aged cohort at the highest risk of tractor overturns. The research team reasoned that making these students, many of whom are future farmers, aware of the retrofit plans and costs of CROPS and providing them with the knowledge and skills to construct and install CROPS on tractors would be important strategies to reduce their exposure to fatality and injury.

Consequently, the researchers planned and conducted a feasibility study (Mazur et al, 2015). The aims of this feasibility study were to:(1) reduce exposure to tractor overturn hazards; (2) increase awareness in the targeted rural communities of the CROPS designs developed by the NIOSH; (3) test the feasibility of the integration of CROPS construction and installation procedures into the required coursework of agricultural mechanics courses in these agricultural education programs; and (4) explore the barriers to implementing such a project in high-school agricultural education programs. During the study, a member of the research team with a youth development background observed that the experiential, communal/collective nature of the CROPS project seemed to nurture collaborative relationships between the teachers and students, described as youth–adult partnerships (YAPs) in the literature on youth development (Mitra, 2008). The researcher deemed that further study was necessary to understand better the significance and usefulness of such partnerships within an agricultural education instructional context. These questions were the impetus for the study reported in this article.

Definition of YAPs

YAPs were defined by Mitra (2008) as "collaborative learning environments where [young people and adults] come together in groups, with the willingness to share authority, accept responsibility, and highlight individual members' abilities and contributions" (p. 8). In a YAP,

young people and adults work toward a common goal or vision that aims for meaningful community-based change (Mitra, 2008). In other words, YAPs presume and require collective action rooted in a specific community context. Scholars agree that YAPs are collective and communal; however, there is much disagreement over the precise role of students in driving such relations.

Camino (2005) identified three criticisms regarding the participation of young people in YAPs: First, YAPs have often given into "the assumption that youth should do everything of importance" (p. 75). Second, YAPs have often indulged in "the belief that adults should 'get out of the way' and give up power" (Camino, p. 75). Last, YAPs have often maintained a "focus on youth as the marked category" (Camino, p. 75). In practice, successful YAPs have managed to promote what Serido, Borden, and Perkins (2011) called "youth voice" (p. 44) as opposed to the kind of youth dominance criticized by Camino.

Experiential learning theory suggests that democratic YAPs work because young people are able to exercise their autonomy, creativity, and social engagement while benefiting from the guidance and support of adults (Christens & Zeldin, 2012). At the same time, teachers and other adults are able to make pedagogical, social, and practical contributions to the YAP while (a) also learning from students and (b) having their traditional authority subsumed in a democratic project structure. Thus, according to Christens and Zeldin (2012), a successful YAP balances youth development and adult development around the collaborative concept of voice rather than the hierarchical concept of power. It is precisely this characteristic that successful YAPs seem to share (Serido, Borden, & Perkins2011).

Student Engagement and Student-Centered Learning Approaches

Although student-centered learning approaches promote effective social engagement, evidence of their effectiveness in facilitating content is far from "univocal" (Baeten, Kyndt, Struyven, & Dochy, 2010, p. 245). Despite findings indicating that teacher-centered approaches can be effective in delivering content (Rosenshine, 1997), the benefits to the growth of the individual, which is facilitated through the student-centered approach to learning, have led researchers to conclude that effectively implemented, it can have a "powerful impact on learning" (Marzano, Gaddy, and Dean, 2000, p. 96). Rogers and Allender (1983) established that the student centered approach to learning offered much more value than just content awareness. Their research into learning approaches considered the development of the individual in social, emotional, and cognitive realms and demonstrated that "significant learning combines the logical and the intuitive, the intellect and the feelings, the concept and the experience, the idea and the meaning" (Rogers & Allender, 1983, p. 20). The YAP capitalizes on these important dimensions of learning, ultimately facilitating content development alongside a more holistic development of the individual.

YAPs and Student Engagement

Zeldin's (2004) work highlighted the existence of civic engagement as one outcome of a YAP, echoing the earlier findings of Camino and Zeldin (2002). Civic engagement is an interesting construct, especially in the communal contexts of YAPs, because while many scholars have been able to identify personal engagement, recognizing civic engagement has been more difficult (Zeldin, 2004). Historically, civic engagement seemed to arise out of individuals' deep patriotism and sense of responsibility to their local and central governments; however, as Camino and Zeldin (2002) pointed out, this sense of civic spirit is no longer as widespread as it once was.

Other ways in which to generate civic engagement among students through YAPs. Zeldin, Camino, and Mook (2005) found that an important driver of civic engagement are students' belief that they will be recognized and rewarded for their work within a YAP. In other

words, students who believe that they truly are able to make a difference within their communities feel more engaged. This pivotal work by Zeldin et al., 2005) suggested that YAPs have the potential to engage students in two ways: First, students in YAPs have the chance to develop their own interests and satisfy their own motivations. Second, students in YAPs can insert themselves into the context of the community and experience the nature of a collective reward based on making a difference.

Even though the concepts of personal and civic engagement might be difficult to distinguish in psychological terms, YAPs are particularly powerful drivers of engagement because of their ability to draw from multiple sources. In terms of the theoretical basis of this study, the works of Camino and Zeldin (2002), Zeldin (2004), and Zeldin et al. (2005) are also important because of their collective empirical validation of the communal/collective aspect of YAPs described by Mitra (2008). Camino (2005) found evidence that the sense of having a voice is a powerful driver of motivation among students in YAPs. Numerous psychological theories support this empirical finding. For example, Maslow's (1945) hierarchy of human needs describes the ability to exercise autonomy as part of the highest-level human need, the need for self-actualization. Students in well-structured YAPs are able to have the experience, often for the first time in their academic lives, of being full participants in the educational process and equal recipients of its rewards (Camino, 2005). Therefore, the youth-driven aspect of YAPs has a deep psychological basis for its connection to engagement. In addition, the work of Denner, Meyer, and Bean (2005) suggested that experiential learning within YAPs generates engagement because students engage more closely with what they can experience. Evidence that YAPs, which are experiential by definition (Mitra, 2008), tap into the engagement supported in the experiential model of learning (Dewey, 1938).

YAPs and Power Dimensions

The sharp power and status distinctions among students, teachers, and administrators pose a particularly difficult challenge for nurturing youth-driven YAPs in a school environment (Mitra, 2008). Students often experience their relationships with teachers as hierarchical, uncaring, and unconnected to students' perceived values (Deed & Campbell, 2007; Jones & Perkins, 2006; Smyth, 2006). Teachers have traditionally treated students as passive receptacles of knowledge rather than as active participants in the learning process (Freire, 2000). Lukes' (2005) three power dimensions (liberal, reformist, and radical) can help explain teacher and student roles within a YAP. Lukes' (2005) framework focuses on how groups affect individual empowerment through decision-making processes. Moreover, these manifestations of power are observable in the group action as well as in its results.

First, we characterize the liberal dimension as the ability of a group to make decisions collectively rather than as individuals. Some group members are likely to have more power than do others, but these members try to determine and deliver what the majority wishes to achieve or acquire. Second, we characterize the reformist dimension as the ability of a group forged by individuals or subgroups that have greater power to compel the collectivization of subordinate individuals. Finally, we characterize the radical dimension as the ability of one person or a small group to shape the interests and make decisions for the larger group, often brought together under overt compulsion.

YAPs and Agricultural Education

The empirical literature on YAPs in agricultural education settings is limited. Although not specifically focused on YAPs, Headden (2012) reported (in an online journal not subject to peer review) on the value of project-based learning in the farming domain for promoting engagement during the process of merging two local high schools in a rural town. Among peer-

reviewed empirical studies, the extant work on YAPs seemed to exclude agricultural education entirely.

Purpose

The purpose of this study is to evaluate the success of three agricultural secondary level teachers in facilitating collaborative relationships through the application of a YAP framework designed to promote and improve a culture of safety among a cohort group of 82 high-school students.

Methods

Phenomenological Research Design

Teachers play a significant role in building collaborations with students to facilitate learning. Thus, the present study carefully examines teachers' shared experiences with their students in the CROPS project. Phenomenology research methods provide opportunities to gain meaning from these shared experiences. Phenomenology is a qualitative research method used to describe "the common meaning for several individuals of their lived experiences of a concept or a phenomenon" (Creswell, 2009, p. 76). A three-step research procedure for phenomenology, as illustrated by Moustakas (1994), is as follows: (1) identify a phenomenon to study, (2) bracket out taken-for-granted assumptions and biases, and (3) collect data from individuals who have experienced the phenomenon.

Participants

The three high-school agricultural education teachers who participated in the CROPS feasibility study also took part in this phenomenological study. The present study uses three subjects, reflecting Giorgi's (2008) analysis that this number offers a "sufficient number of variations…in order to come up with a typical essence" (p. 37). Further research would indicate a need for a broader sample; however, for the purposes of the present study, the selected methodology and sample suits the pragmatic aspects of recruiting subjects for analysis. These individuals were given pseudonyms for the purpose of the study.

- **Camden** was in his first year of teaching during the study. There were 100 students enrolled in this agricultural education program, with 23 in agricultural mechanics courses during the study. Having grown up on a family farm and experienced building ROPS for his own tractors, he was able to share his passion for agricultural mechanics with his students.
- **Gary,** a former extension agent, has more than 20 years of service in the teaching profession and well respected in the agricultural mechanics profession. He has prepared numerous state-winning teams in agricultural mechanics. There were approximately 250 students enrolled in this agricultural education program, with 48 in agricultural mechanics courses during this study.
- **Brian,** a second year agricultural education teacher, is very committed to farm safety after the paralysis and deaths of three farmers in his hometown community in which he is now a teacher at the local high school. There were 250 students enrolled in his agricultural education program, with 27 in agricultural mechanics courses during the study year.

Procedures

Semi-structured interviews and on-site observations comprised the data collection methods for the study. We conducted telephone interviews with each teacher three months after

the completion of the CROPS project, which allowed enough time to pass for the teachers to reflect adequately on the experience and identify areas of impact. We audio-recorded these interviews (generally 20 to30 minutes in length) and transcribed them verbatim to preserve the pertinent data. In addition, the researcher observed during two or three site visits and noted student–teacher interactions both in the classroom and in the field as part of the learning experience. Although immediate interviews may have offered relevant information on the actions of the participants as they participated in the CROPS activities that often characterizes phenomenological investigations, this study capitalized on the critical activity of reflection that Baird, Fensham, Gunstone, and White (1991) found results in improved articulation and insights about teaching experience. In fact, teachers 'work' extends from the actual lived classroom experience through the reflective arc as a complete and unique experience (Shulman, 1986; Schon, 1984).

Bracketing

We established a sense of neutrality by attempting to bracket out the experiences and biases of the youth development researcher that may have influenced the interpretation of the results. The researcher's experiences with YAPs, in particular, influenced how she observed, interacted with, and received responses from the agricultural education teachers; but we minimized this influence by triangulating the data and being aware of these possible influences.

Data Analysis

We used Moustakas' (1994) phenomenological method to analyze the interview transcripts. The three-step coding process involved: (1) a careful read through of all the data collected in the study to reduce the chances of selective data selection for the analysis; (2) the generation of explanatory themes from the collected data, which were simplified by the existence of the identified phenomena; and (3) the application of the themes to the research questions of the study. Initial coding focused on the elements of YAPs noted in the literature (i.e., communal/collective, experiential, and youth-driven) as well as Lukes' (2005) three power dimensions. After this initial coding, we inferred 'success themes' from the data related to the project's outcomes and, finally, we examined the coding for the power dimensions within these themes.

Findings

Success Themes

Several themes emerged from the analysis of the coded interview data that highlighted the positive dimensions of various elements of YAPs for the success of students' work in the CROPS project. We associated experiential YAP elements with the success themes of motivation, improved work performance through persistence/retrying, and the value of authentic intellectual work and real-world products for promoting individual responsibility. Communal/collective success themes included the benefits to all participants of seeing the excellent work of others, that the contributions of all to the finished project were essential, that small groups worked together toward common and focused goals, and external community members valued that students' work. In coding for the youth-driven element of YAPs, our success themes related to valuing and legitimizing students' input into project work, student–teacher collaborations on problem solving, and the participation of students in leading and influencing others (see Table 1).

Table 1

Narrative Interview Data Coded for the YAP model: Thematic Inferences

YAP Element	Teacher Quotations	Positive Findings
Experiential	Yes, anytime you get up and do the hands-on, it's a lot better than just sitting in the classroom. It really helps when you do it in the classroom first. Show them what you're going to do, and then go do it in the shop. It really comes back home to them then….So many times in high school, we tell them what to do, they do it, and then they don't see the result of it. Here, they've seen an actual assembly of the CROPS put together, and actually work on the tractor, and see it being used." – Gary "I want them to enjoy the shop. But I also want them to get some real-life experiences. The knowledge you learn out there is just as beneficial as the operations that you go through in actually carrying out that, because that's what it takes. You go in a welding shop or you go into any kind of shop out in the real world, you are going to have a guy tell you one time, 'This is what I want done.' He's not got the time to come back, stand over your shoulder, and say, 'Did you do it right'? That's called responsibility. That's responsibility to make sure you do a good job with that person." – Brian	• Students motivated by seeing the completed work being used • Students' work improved by having more than one chance to build and learn • Importance of work underscored by building and assembly Authentic experiences provide students with a sense of responsibility
Communal/ collective	"I teach a small engine class, where they take engines apart and put them back together. A lot of our shop projects, we build either for the students, and that student might get to see it work, but the other students do not. At the same time, we do have these large shop projects, and maybe three or four will do those shop projects, but the whole class doesn't get to see it, like they did with this. Here, everybody got involved, everybody saw the result of what happened. What would happen if the tractors were not equipped properly? We've had several accidents here where people actually got killed, with the tractor slipping over without ROPS on them." – Camden "Any time you're working on a group project, where everybody's involved, it makes it better. That's all there is to it. Especially if they can see a value to it, I think that really helps." – Gary	• All students get to see and benefit from the work of exceptional students • Nature of project requires contributions and involvement from all students • Experiential learning solidifies the sense of a small group focused on a single objective • Students often work with community members, building an extended sense of community • Students' work used by the community

(continued)

Table 1

Narrative Interview Data Coded for the YAP model: Thematic Inferences (Continued)

YAP Element	Teacher Quotations	• Positive Findings
Youth-driven	"It was more student-led learning. After we got through reading architectural plans and after we did some reviews in class – 'Make sure that you understand this plan. Do you understand this measurement?' and those things – I didn't have to stay after them so much. I didn't have to actually go out there and teach every single group what they was doing." –Brian "Some of them were just loners, and they're not going to be involved. No matter what you do, they're just going to stand back. But the leaders, they really stepped up and brought the others with them. I probably had one in each class that didn't really get involved with it." – Gary "When we're working a project, working out in the shop, the more minds the better. I've had several instances where we're sitting there trying to figure out a problem on a project we're working with and a student will come up with an idea that I would have never thought that will work fantastically." – Camden "I've got one boy that is probably the best welder I have ever seen, professional or whatever. It's amazing what this boy can do. He don't talk much. He's really, really quiet. He'll go and he'll start working on something. The next thing you know, he's got two or three standing around him, and he may not have said one word to him or, 'Come here and watch this.' They just want to watch him…. Every now and then, you'll see him and he will stop and he'll answer a question or something. He's one of them. And I've got five or six that was in that class was the same way." – Brian	• Students' input solicited and often utilized in class settings • Students' vocational decisions often informed by CROPS experiences • Students work through problems in collaboration with the teacher • Students invest themselves in the work, leading and influencing others

We also examined the data for possible relationships between the inferred success themes and power dimensions described by Lukes (2005). As previously noted, Mitra (2008) and others have noted the importance of power roles and relations to the formation of balanced, youth-driven YAPs.

Power Dimensions

As shown in Table 2, the liberal and reformist power dimensions described by Lukes (2005) were evident in all three YAP elements. The third power dimension, radical, was not applicable here because this kind of communal/collective arrangement does not concur with the kind of collectivity that Mitra (2008) described. In both the experiential and the communal/collective elements of YAPs, the liberal dimension showed that the student groups developed a collective decision-making ability. In the experiential and youth-driven success themes, the reformist dimension highlighted that groups of students came together to share knowledge and skills with others who were not as qualified or to engage peers in more challenging work.

Table 2

Power Dimensions within YAP: Success Themes Emerging from the CROPS Data

YAP Element	Power Dimension	CROPS Positive Findings
Experiential	Reformist/ liberal	• Students motivated by seeing the completed work in use • Student work improved by having more than one chance to build and learn • Importance of work underscored by building and assembly • Authentic experiences provide students with a sense of responsibility
Communal/ collective	Liberal	• All students are able to see and benefit from the work of exceptional students • Nature of project requires contributions and involvement from all students • Experiential learning solidifies the sense of a small group focused on a single objective • Students often work with community members, building an extended sense of community • Students' work used by the community
Youth-driven	Reformist	• Students' input solicited and often utilized in classroom settings • Students' vocational decisions often informed by CROPS experiences • Students work through problems in collaboration with the teacher • Students invest themselves in the work, leading and influencing others

Selected Cases

The experiential component of the CROPS project provided a more interactive experience between the teacher and the student that seemed to mitigate the unequal power distribution. Teachers functioned as partners, mentors, collaborators, and/or guides rather than just as overseers, as the following quote demonstrates.

> I was a mentor to the students from the aspect of showing them how to do the different parts of the project. I was also a collaborator from the aspect that we had to work together and use ideas from each other throughout the project. – Gary

The dynamic, collaborative learning experience away from the classroom allowed students to recognize better their own competencies, which, in turn, made them feel more engaged and motivated in what they were doing.

> I think any time that you put a hands-on project in front of a kid where they can see it come to life right in front of them and see the fruits of their labor when they're finished, it impacts on them a lot differently than if you were just sitting in the classroom working out of a textbook or something. – Camden

The communal/collective arrangement of the reformist power dimension in the CROPS project concurs with the notion of collectivity mentioned in Mitra's (2008) work. Typically, reformist groups have adults as the senior deciders; these kinds of groups skirt the boundary between being genuinely youth-driven and being adult-driven. If there is a large enough disparity between what students say they want and what reformist leaders give them, then the group is not youth-driven. The gap between the teacher and students in the CROPS project bridges the role young people play within group project work.

The teachers established groups to work on particular aspects of construction and assembly within the CROPS project. Brian paired less-skilled students with more-skilled peers so that the former could develop more knowledge and skills. As a result, the latter became empowered to take leadership and ownership of the project, and this provided less-skilled students with the opportunity to learn from their peers. Brian hypothesized that teachers who have a great deal of experience problem-solving on farms would have the most success collaborating with students on such a project. Moreover, as a second-year teacher, he, too, benefited from working alongside the students.

Gary, a veteran teacher, also provided opportunities for students to take leadership and ownership through the CROPS group work. However, his role, despite being equally effective, was less of a partner to students compared with Brian and Camden. Because he had the largest shop and most teaching experience, he was able to guide students through the obstacles and challenges they faced throughout the project. His shared expertise and personal experience also enriched their understanding of the travails that previous generations have endured on farms.

> "I knew a couple of people who got killed on tractors that didn't have roll bars on them. There was a boy that was 16 when I was 18, who was killed on a 150 Massey tractor, flipped backwards on him and killed himI had another friend that was plowing with a tractor that didn't have a roll bar and it flipped over and killed him. I've had several instances when I was younger, I've seen people get killed from this. Leading up to it, that's one of the things that I talked about in the classes. A couple days there, we sat going over those things, of accidents I knew had happened." – Gary

Discussion and Conclusion

Our post-project implementation interviews with the teachers suggested that the CROPS project aligns well with all three elements of the YAP model: experiential, communal/collective, and youth-driven. As shown on the left-hand side of Figure 1, a robust YAP functions at the intersection of these three aspects. Such a YAP is effective because of the way it promotes high-quality student engagement within the learning system. When students engage, they go on to benefit from learning opportunities or to demand more of themselves. Reflections of teachers indicate a favorable result of YAP methodologies, and at the very least warrant the evaluation of a more widespread application of YAP in agricultural classrooms.

The considerable and pervasive power difference between teachers and students prevalent in most school environments hinders collaborative relationships and diminishes the levels of

student engagement necessary for a YAP to thrive. Without teachers 'giving up' some of the power they are ascribed by the routine school situation, the development of collaborative voice is not possible.

Therefore, the liberal and reformist power dimensions and the roles that students play within each are important considerations for teachers designing YAPs, especially when the goal is to promote a more youth-driven model of learning. Some YAPs are far more youth-driven, with the adults taking responsibility for building an open, rich learning environment for young people. Other YAPs are either adult-driven or equitable in their power distribution between young people and adults. In adult-driven YAPs, where the relative role of young people in the model shown in Figure 1 is low, adults create a coercive or semi-coercive learning structure in which, for example, they set expectations, tasks, time spent in classroom, and curricula.

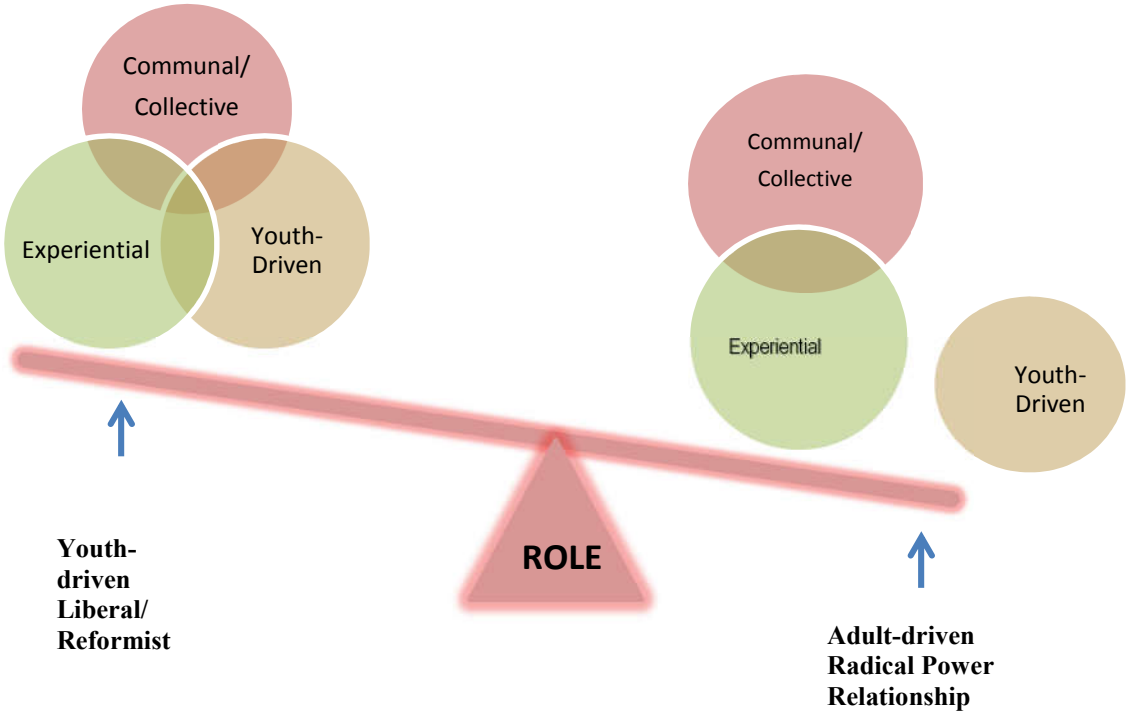

Figure 1. The YAP model compares adult-driven and youth-driven YAPs. While the latter distribute power among participants, the former lean more towards a radical power orientation. This figure demonstrates the pivotal contribution that the role can play in facilitating a more authentic experience of power on the part of the participant.

In addition to teachers' attention to the power dimensions and roles within a course project, the design of the project itself was also clearly a factor promoting youth-driven YAPs. The CROPS project design aligns well with both a liberal and a reformist power orientation. The project managers designed the project to align with the agricultural mechanics curriculum; the materials link to the core content required for agricultural mechanics, thus providing an optimal foundation for teachers to create more of a youth-driven YAP. Because most students have gained the basic machinery/welding skills needed to do CROPS work from prior teaching, they are also likely to be prepared for more decision-making power within groups.

Prior research on YAPs addresses the value of youth voice but does not amply cover the issue of power as an important influence or constraint to effectively engage young people in a

learning structure. The youth-driven YAP model provides agricultural educators with a framework by design and guide instruction. Additionally, it posits a pivotal role for YAP-driven engagement for student achievement in agricultural education.

Recommendations for Practice

How can teachers integrate a youth-driven YAP model as a part of classroom instruction? Most learning structures in schools do not satisfy the three components of the youth-driven YAP. Because many schools still rely on strict adherence to hierarchy, tradition and established structures, teachers will likely have control over the majority of the learning decisions and situations in the classroom. In this kind of adult-driven climate, very few adults are accustomed to sharing power with youth, leaving youth with minimal responsibility and opportunities to participate.

This context presents a significant challenge for teachers to engage students as collaborative partners in youth-driven learning structures; therefore, it is imperative that teachers: (1) take the time to examine their own attitudes towards sharing power and enabling student voice; (2) address the power dynamics at play and the existing structures and norms that create them; (3) seek opportunities and experiences for students to participate meaningfully in decisions that affect them; (4) and finally, garner support from the power-wielding adults in the school and community early on in the project to drive the project direction.

Implications

The extent to which a learning structure aligns with the experiential and communal/collective aspects highly depends on the way in which educators structure the learning environment. We have prepared some implicative questions to help in the design of a youth-driven YAP as part of project-based instruction in agricultural education.

Communal/Collective

Do all students engage in the same kind of learning experience?
How do students learn together while learning apart?
Does the instruction allow students to share thoughts, pose questions, and otherwise interact collectively with their peers?

Experiential

To what extent does the project include experiential learning opportunities?
How do the experiential aspects of the project improve student engagement?
Can students seek out their own experiential opportunities within the learning environment?

Youth Driven

To what extent does the project allow students to share in the decision-making with teachers and other peers?
How would you describe your role with students during the course of the project? To what degree is the project adult-driven or youth-driven?
Does the project provide opportunities for students to lead and be resourceful and responsible?

Further Research

The study reported here was a secondary analysis not designed as a primary evaluation or inquiry researching Youth-Adult Partnerships in agricultural education. A more focused YAP project investigation might include detailed interviews with the teachers and students on the views of their roles within a YAP. Observation protocols would specifically target YAP dimensions evident in the classroom context. Such research would further explore additional dimensions of a success and barriers to the formation of youth-driven YAPs. Robust articulations of the success themes of success themes of motivation, improved work performance through persistence/retrying, and the value of authentic intellectual work and real-world products for promoting individual responsibility could be explored and the relationships between power and voice elaborated.

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