

Civic Engagement, Autonomy, and Reflection: Factors Influencing Youth's Self-Perceived Civic Responsibility

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Abstract

This study's purpose was to determine the influence of involvement level, autonomy, and reflection during FFA civic engagement activities on students' self-perceived civic responsibility levels. The study utilized a quasi-experimental, non-equivalent comparison group design. The treatment consisted of two groups: an experimental reflection group and a control group. Four school-based agriculture programs agreed to participate, providing a time and place sample of 282 respondents. Simultaneous multiple linear regression models explained significant variance in students' levels of self-perceived civic responsibility scores using a linear combination of involvement level, autonomy, and structured, guided reflection. Data analysis revealed positive, statistically significant relationships between the autonomy and reflection variables and youths' perceived levels of civic responsibility. These findings can inform educator practices for designing FFA civic engagement programming.

Keywords: civic engagement; FFA civic engagement activities; autonomy; guided reflection; civic responsibility; connection to community; community needs awareness; civic efficacy

Introduction and Conceptual Framework

Adolescent youth potentially experience a variety of positive developmental opportunities during structured civic engagement activities (Lerner, 2017). During adolescence, individuals are more open to learning civic concepts than in any other period and are thus more likely to form civic values (Vézina & Poulin, 2017). Furthermore, it may be their last opportunity to equip themselves as productive contributors to society (Finlay, Wray-Lake, & Flanagan, 2010). Civic engagement allows youth to explore their identity beyond the familial home, acquire the societal norms of the adult world, and develop a positive connection to society (McIntosh, Metz, & Youniss, 2005). To initiate the steps of becoming engaged contributors to society, however, adolescent youth must first be presented the opportunity to become involved in civic engagement activities (Hart & Atkins, 2002; Jacobsen & Casalaspi, 2016; Langston, 1987).

Many school-based FFA chapters provide opportunities for rural youth to become involved with civic engagement activities through FFA programming (Horstmeier & Ricketts, 2009; National FFA Organization, 2018). FFA civic engagement activities provide crucial civic education opportunities for agriculture students in a variety of settings (National FFA Organization, 2018). These

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activities are especially important when schools and surrounding communities have limited civic engagement outlets for youth (Brandell & Hinck, 2005; Lin, 2015; Skinner & Chapman, 1999). FFA programming often utilizes civic engagement activities at the local, state, and national levels to develop students' citizenship and interpersonal skills (Ricketts & Ricketts, 2011). Further, as a result of civic engagement, individuals form stronger bonds with other community members, enhance their community pride, and increase their concern for improving the status of the community (Flanagan & Faison, 2001).

Civic engagement activities are deeply embedded within all levels of FFA programming. However, this component of FFA programming remains mostly unexamined. Thus, current FFA civic engagement practices may not reach their full potential for student development. Additionally, for FFA programming to develop responsible civic attitudes, these groups must utilize effective methods to facilitate civic engagement experiences (Lin, 2015).

We developed a conceptual model (see Figure 1) based on existing youth development civic engagement literature. The literature revealed three variables that potentially create impactful civic engagement experiences: autonomy experienced before and during civic engagement experiences, structured reflection following civic engagement experiences, and involvement level (Catalano, Berglund, Ryan, Lonczak, & Hawkins, 2004; Furco, Jones-White, Huesman, & Gorny, 2016; Lin, 2015; Pearce, Walker, & Larson, 2005; Waterman, 1997).

The first variable of the conceptual model was the involvement level in civic engagement activities. In civic education, youth develop a more profound sense of civic responsibility when higher involvement intensity in civic engagement experiences is maintained (Furco & Billig, 2002). Rarely does one single experience significantly change the social beliefs of an individual (Rose-Krasnor, Busseri, Wiloughby, & Chalmers, 2006), and significant personal change requires extended exposure to events that challenge an individual's beliefs (Dewey, 1933). Further, adolescents "maximize the potential for intrapersonal growth and interpersonal advantages" when exposed to numerous learning situations with distinguishing developmental outcomes (Busseri, Rose-Krasnor, Willoughby, & Chalmers, 2006, p. 1322). Civic attitudes will not significantly change unless the youth are presented with long-term exposure to civic problems.

The second variable of interest was autonomy experienced by students before and during each civic engagement activity. Educational environments facilitate autonomy when students experience feelings of volition, perceived control, internally perceived locus of causality, and a desire to continue activity in the future (Reeve, 2006). Volition refers to doing an activity free from external pressure, such as extreme incentives or punishments. Perceived control involves making conscious decisions affecting the outcome of an activity. Perceived locus of causality represents an individual's internal choice to attempt an activity. The desire to continue an activity often indicates an individual's feelings of competence established during an activity (Reeve, 2002). Autonomy experienced during FFA civic engagement potentially provides students an opportunity for ownership in the experience and ultimately results in enhanced learning (Hancock, Dyk, & Jones, 2012; Parker et al., 2009; Warter & Grossman, 2002).

Structured reflection was the third and final variable of interest. Time for youth to critically process the lived civic engagement experience is a critical component to successful, meaningful, and developmentally constructive civic engagement (Billig, 2000; Caspersz & Olaru, 2017). Reflection reinforces civic behaviors and attitudes desired by youth development programs (Wikenfeld, Lauckhardt, & Torney-Purta, 2010). Structured collaboration between youth and adults develops youth participants' moral reasoning and awareness of community issues (Vialle, Lysaght, & Verenikina, 2000). Post-event reflection by youth increases their investment for improving community problems

and allows them to have a more powerful intellectual experience when consistently utilized (Eyler, Giles, & Braxton, 1995; Greene & Diehm, 1995). Additionally, when youth continuously self-assess their abilities from civic engagement experiences, they develop an enhanced level of civic responsibility (Levine & Higgins-D'Alessandro, 2010). Structured reflection provides a critical opportunity for youth to process the experience meaningfully and ultimately reach higher levels of understanding and belief in their civic attitudes (Caspersz & Olaru, 2017).

We conceptualized the outcome of civic engagement experiences as an individual's self-perceived level of civic responsibility. Civic responsibility encompasses three dimensions: connection to the community, awareness of existing community needs, and civic efficacy (Balsano, 2005; Evans & Prilleltensky, 2005; Furco, Muller, & Ammons, 1998; Lin, 2015; McGuire & Brown, 2015). Connection to the community means an individual perceives interconnectedness to and can relate to other community members (Balsano, 2005; Mondak & Gearing, 1998). Community needs awareness signifies an individual's ability to identify and resolve existing common issues (Evans & Prilleltensky, 2005). Civic efficacy is the mindset that an individual can and should solve existing community problems (Giles & Eyler, 1994; McGuire & Brown, 2015). We developed a conceptual model (see Figure 1) using existing youth development and civic engagement literature to guide the current investigation.

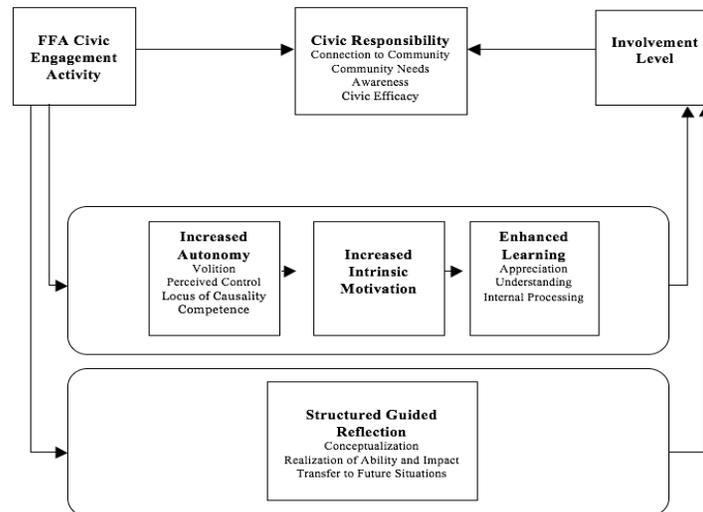


Figure 1. Conceptual model of FFA civic engagement activity critical components.

Purpose and Objectives

The purpose of this study was to determine the influence of involvement level, experienced autonomy, and reflection during FFA civic engagement activities on students' self-perceived civic responsibility. The following research objectives guided the study:

1. Describe students' involvement by frequency of participation and hours engaged.
2. Describe students' level of self-perceived experienced autonomy.
3. Describe students' levels of self-perceived civic responsibility.
4. Determine if a linear relationship exists between involvement level, autonomy, and reflection and students' levels of self-perceived civic responsibility.

Methods

This study utilized a quasi-experimental, nonequivalent control group pretest-posttest design. This design is well suited for research on existing intact groups, such as FFA chapters (Ary, Jacobs, & Sorensen, 2010; Shadish, Cook, & Campbell, 2002), that cannot be randomly assigned to groups to establish equality (Shadish et al., 2002). The target population was all Missouri students enrolled in school-based agricultural education (SBAE) programs with FFA chapters completing the National Chapter Award during the academic school year before data collection ($N = 3336$). Nine SBAE programs were purposefully identified based on accessibility, resulting in four programs as the final usable sample due to FFA civic engagement activities being conducted throughout all data collection periods ($n = 282$). Each FFA chapter sponsored a wide range of civic engagement activities, including events such as school-wide blood drives, weekend litter collections, community recycling drives, and a variety of other community improvement initiatives. We viewed these students as a time and place sample and deemed the results inferable to past and future individuals within the four FFA chapters (Oliver & Hinkle, 1982). Respondents self-reported themselves as mostly 15 years old, male, in 9th grade, white, having lived on a rural farm, and having grades of mostly A's and B's.

We created a paper and pencil questionnaire for data collection that contained three sections measuring: involvement level and autonomy, civic responsibility, and demographic characteristics. To establish validity and reliability, a panel of experts ($n = 7$) assessed the face and content validity, and a pilot study of similar students ($n = 28$) resulted in Cronbach's alpha range of .71 to .93 for all constructs (Nunnally, 1978). Data collection occurred over 21 months, with four collection points and random assignment of the treatment (control or reflection) occurring after the third collection point (see Table 1). Before this research project, none of the four participating programs provided structured reflection following civic engagement activities. The reflection process was adapted from the Six-Step Civic Reflection Process (Bradley, 1997) and was reviewed by the panel of experts. FFA advisors of the two programs randomly assigned to the reflection treatment group were provided training on reflection protocol expectations, as well as scripted reflection questions to ask students immediately following civic engagement activities. For data analysis, the reflection component was treated as a dichotomous variable.

Table 1

Graphic Representation of the Research Design

Group	Pretest			Assignment	Posttest	
	Period 1	Period 2	Period 3		Treatment	Period 4
School 1	O_1	O_2	O_3	Random	Control	O_4
School 2	O_1	O_2	O_3	Random	Control	O_4
School 3	O_1	O_2	O_3	Random	$X_{\text{Reflection}}$	O_4
School 4	O_1	O_2	O_3	Random	$X_{\text{Reflection}}$	O_4

The first section of the questionnaire assessed the number of FFA civic engagement activities each student participated in, the amount of time involved in each activity, and the level of autonomy students experienced during each activity. The autonomy scale consisted of four constructs: (a) volition—the student participated without positive or negative influence from others; (b) perceived control—the student had opportunities to make important decisions before, during, or after the activity; (c) locus of causality—the student participated because it was internally meaningful to them; and (d) continued involvement—the student had aspirations to continue involvement in that activity in the future on their own (Reeve, 2002). Responses were based on a six-point Likert-type scale with anchors

of 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Slightly Disagree*, 4 = *Slightly Agree*, 5 = *Agree*, and 6 = *Strongly Agree*. A higher numeric value indicated a higher level of agreement with each construct.

The second section of the instrument measured students' self-perceived levels of civic responsibility and consisted of three constructs: (a) connection to the community—students felt they had a relationship with their community; (b) community needs awareness—students felt they could identify existing societal issues, and (c) civic efficacy—students felt they had the skills and ability to positively influence community issues (Furco, Muller, & Ammons, 1998). Responses were based on a six-point Likert-type scale with anchors of 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Slightly Disagree*, 4 = *Slightly Agree*, 5 = *Agree*, and 6 = *Strongly Agree*. A higher numeric value indicated a higher level of agreement with each construct.

We used descriptive statistical analysis to address Objectives 1, 2, and 3. To address Objective 4, we used a simultaneous multiple linear regression to explain the variance in students' levels of self-perceived civic responsibility. Upon initial inspection of the data, linearity was upheld, and the time students engaged in FFA civic engagement activities variable was positively skewed and had positive kurtosis. We noted this deviation from a normal distribution as a point of concern as we conducted further assumption testing. Following the initial inspection, we entered the predictor variables into the regression model simultaneously to explain variance related to each construct of civic responsibility. We then conducted the remaining assumption tests, including all residual testing, and found no violations; thus, all assumptions were upheld (Field, 2009). For all statistical analyses, alpha levels were set a priori at $\alpha = 0.05$.

Findings

Objective 1 was to describe the frequency of student involvement in FFA civic engagement activities (see Table 2). The vast majority of students ($n = 259$; 91.80%) participated in at least one FFA civic engagement activity at some point across the four time periods. Twenty-three (8.20%) students never participated in any FFA civic engagement activities. Students most frequently participated in only one FFA civic engagement activity ($n = 59$; 20.90%).

Table 2

Frequency of Student Participation in FFA Civic Engagement Activities (n = 282)

Level of Participation	School 1 (n = 58)		School 2 (n = 59)		School 3 (n = 137)		School 4 (n = 28)		Total (n = 282)	
	f	%	f	%	f	%	f	%	f	%
0 Activities	5	8.60	3	5.10	14	10.20	1	3.60	23	8.20
1 Activity	4	6.90	14	23.70	41	29.90	0	0.00	59	20.90
2 Activities	9	15.50	11	18.60	38	27.70	0	0.00	58	20.60
3 Activities	7	12.10	6	10.20	16	11.70	1	3.60	30	10.60
4 Activities	5	8.60	12	20.30	19	13.90	5	10.70	41	14.50
5 Activities	6	10.30	2	3.40	4	2.90	3	7.10	15	5.30
6 Activities	5	8.60	2	3.40	2	1.50	2	14.30	11	3.90
7 Activities	5	8.60	2	3.40	3	2.20	0	0.00	10	3.50
8 Activities	0	0.00	3	5.10	0	0.00	4	14.30	7	2.50
9 Activities	4	6.90	2	3.40	0	0.00	3	10.70	9	3.20
10 Activities	1	1.70	1	1.70	0	0.00	2	7.10	4	1.40
11 Activities	3	5.20	0	0.00	0	0.00	3	10.70	6	2.10
12 Activities	0	0.00	1	1.70	0	0.00	2	7.10	3	1.10

Table 2

Frequency of Student Participation in FFA Civic Engagement Activities (n = 282) Continued...

13 Activities	3	5.20	0	0.00	0	0.00	1	3.60	4	1.40
14 Activities	0	0.00	0	0.00	0	0.00	1	3.60	1	0.40
15 Activities	1	1.70	0	0.00	0	0.00	0	0.00	1	0.40

Note. FFA chapters offered a maximum of 15 civic engagement activities.

Additionally, we measured the number of times students were engaged in FFA civic engagement activities during all four time periods (see Table 3). Students from School 1 ($n = 58$) had the highest level of time spent engaged in FFA civic engagement activities with an average of 123.29 hours ($SD = 169.93$) per student. Students from School 4 ($n = 28$) had the second-highest level of time, with an average of 74.46 hours ($SD = 73.35$) per student engaged in FFA civic engagement activities. Next was School 2 ($n = 59$), with an average student engagement time of 26.08 hours ($SD = 38.92$) per student in FFA civic engagement activities. School 3 ($n = 137$) had the lowest overall level of time spent with an average of 20.47 hours ($SD = 51.85$) per student.

Table 3

Time Students Were Engaged in FFA Civic Engagement Activities (n = 282)

FFA Chapter	Period 1		Period 2		Period 3		Period 4		Total	
	<i>M</i>	<i>SD</i>								
School 1 ($n = 58$)	32.22	56.53	47.98	75.16	24.90	62.67	18.19	64.83	123.29	169.93
School 2 ($n = 59$)	14.03	27.96	6.03	16.21	1.46	3.65	4.56	14.43	26.08	38.92
School 3 ($n = 137$)	10.76	47.13	1.24	4.29	5.64	8.35	2.91	10.47	20.47	51.85
School 4 ($n = 28$)	9.89	12.00	9.14	11.57	36.11	42.46	19.32	29.71	74.46	73.35

Note. Time is presented in hours. Raw data are positively skewed and peaked. No data transformation was conducted as the residuals upheld normality.

Objective 2 was to describe students' levels of self-perceived experienced autonomy during FFA civic engagement activities (see Table 4). A total of 259 students participated in one or more FFA civic engagement activities; we excluded students with no participation ($n = 23$) from the analysis. Students from all four schools agreed that they had experienced volition while participating in FFA civic engagement activities. The volition construct mean scores ranged from 4.68 ($SD = 0.86$) to 5.17 ($SD = 0.66$) across all schools. Students from School 1 showed the highest level of volition ($M = 5.17$; $SD = 0.66$), followed by students from School 4 ($M = 5.01$; $SD = 0.52$). Regarding experiencing a sense of perceived control, students from School 1 ($M = 3.82$; $SD = 1.28$) and School 4 ($M = 3.53$; $SD = 1.05$), on average, slightly agreed. Respondents slightly disagreed with having experienced perceived control at School 3 ($M = 3.05$; $SD = 1.23$) and School 2 ($M = 2.89$; $SD = 1.21$). Students from School 1 ($M = 5.11$; $SD = 0.64$) and School 4 ($M = 5.06$; $SD = 0.60$) agreed they had sensed that they were the locus of causality. Respondents slightly agreed that they had experienced a sense of locus of causality at School 3 ($M = 4.50$; $SD = 1.07$) and School 2 ($M = 4.33$; $SD = 1.02$). Finally, students from School 1 had the highest level of indication that they would continue participation in civic engagement activities ($M = 5.43$; $SD = 0.58$), followed by students from School 4 ($M = 5.41$; $SD = 0.43$).

Objective 3 was to describe students' levels of self-perceived civic responsibility (see Table 5). The analysis included all respondents ($n = 282$), regardless of their level of involvement. In regard to

feeling connected to their community, students from School 1 ($M = 4.58$; $SD = 0.77$) and School 4 ($M = 4.73$; $SD = 1.00$) reported overall agreement. Respondents indicated they slightly agreed with feeling a connection to their community at School 3 ($M = 4.48$; $SD = 0.84$) and School 2 ($M = 4.22$; $SD = 0.86$). Students from all four schools slightly agreed with feeling aware of their communities' needs with scores ranging from 3.59 ($SD = 0.89$) to 4.29 ($SD = 1.00$). Students from School 1 ($M = 4.16$; $SD = 0.92$), School 3 ($M = 3.84$; $SD = 0.97$), and School 4 ($M = 4.28$; $SD = 1.02$) slightly agreed on having experienced a sense of civic efficacy.

Table 4

Levels of Self-Perceived Autonomy Experienced during FFA Civic Engagement Activities (n = 259)

Autonomy construct	Period 1			Period 2			Period 3			Period 4			Total		
	<i>n</i>	<i>M</i>	<i>SD</i>												
School 1															
Volition	49	5.09	0.80	34	5.25	0.72	34	5.30	0.77	24	5.44	0.82	53	5.17	0.66
Perceived control	49	3.82	1.38	34	3.94	1.43	34	4.09	1.30	24	4.42	1.25	53	3.82	1.28
Locus of causality	49	5.03	0.88	34	5.27	0.61	34	5.31	0.74	24	5.35	0.65	53	5.11	0.64
Continued participation	49	5.51	0.63	34	5.45	0.69	34	5.41	0.67	24	5.42	0.69	53	5.43	0.58
School 2															
Volition	34	4.93	0.80	46	4.65	1.05	15	4.57	0.92	56	4.68	0.93	56	4.68	0.86
Perceived control	34	3.40	1.12	46	2.73	1.29	15	3.64	1.26	56	2.89	1.44	56	2.89	1.21
Locus of causality	34	4.80	0.73	46	4.16	1.17	15	4.87	1.11	56	4.33	1.06	56	4.33	1.02
Continued participation	34	5.29	0.78	46	4.68	1.25	15	5.43	0.69	56	4.76	0.88	56	4.76	1.12
School 3															
Volition	54	5.10	0.82	23	4.82	0.92	96	4.88	1.10	60	5.26	0.84	123	4.93	0.94
Perceived control	54	3.07	1.29	23	2.96	1.58	96	3.22	1.46	60	3.01	1.51	123	3.05	1.23
Locus of causality	54	4.84	0.88	23	4.10	1.20	96	4.38	1.21	60	4.97	0.95	123	4.50	1.07
Continued participation	54	5.10	1.05	23	4.80	1.32	96	5.16	0.93	60	5.35	0.76	123	5.06	0.96
School 4															
Volition	16	5.57	0.37	24	5.21	0.84	27	4.78	0.77	25	4.70	0.90	27	5.01	0.52
Perceived control	16	3.13	1.43	24	3.29	1.31	27	4.00	1.17	25	3.65	1.50	27	3.53	1.05
Locus of causality	16	5.24	0.55	24	5.33	0.70	27	4.82	0.90	25	4.90	1.03	27	5.06	0.60
Continued participation	16	5.57	0.38	24	5.58	0.57	27	5.34	0.57	25	5.20	0.90	27	5.41	0.43

Note. 1–1.50 = *Strongly Disagree*, 1.51–2.50 = *Disagree*, 2.51–3.50 = *Slightly Disagree*, 3.51–4.50 = *Slightly Agree*, 4.51–5.50 = *Agree*, and 5.51–6 = *Strongly Agree*.

Table 5

Students' Self-Perceived Levels of Civic Responsibility (n = 282)

Civic responsibility construct	Period 1			Period 2			Period 3			Period 4			Total		
	<i>N</i>	<i>M</i>	<i>SD</i>												
School 1															
Connection to the community	58	4.78	0.80	41	4.70	0.76	55	4.45	0.99	58	4.53	0.89	58	4.58	0.77
Community needs awareness	58	4.42	0.81	41	4.30	0.96	55	4.12	1.08	58	4.18	0.89	58	4.20	0.84
Civic efficacy	58	4.27	1.02	41	4.26	1.03	55	4.08	1.11	58	4.24	0.92	58	4.16	0.92
School 2															
Connection to the community	59	4.49	0.93	58	4.15	1.08	59	4.10	1.02	59	4.15	1.11	59	4.22	0.86
Community needs awareness	59	3.79	1.06	58	3.53	1.12	59	3.46	1.02	59	3.62	1.17	59	3.59	0.89
Civic efficacy	59	3.66	1.07	58	3.20	1.24	59	3.34	1.17	59	3.43	1.24	59	3.40	0.96
School 3															
Connection to the community	137	4.61	0.85	121	4.51	0.92	127	4.39	1.01	137	4.46	1.07	137	4.48	0.84
Community needs awareness	137	4.02	0.86	121	3.99	0.99	127	3.96	1.04	137	4.06	1.13	137	3.99	0.88
Civic efficacy	137	3.89	1.01	121	3.85	1.02	127	3.76	1.17	137	3.92	1.21	137	3.84	0.97
School 4															
Connection to the community	27	4.97	0.63	27	4.83	0.91	28	4.83	0.74	28	4.68	1.21	28	4.73	1.00
Community needs awareness	27	4.38	0.65	27	4.49	0.85	28	4.29	0.93	28	4.35	1.26	28	4.29	1.00
Civic efficacy	27	4.20	0.98	27	4.41	1.02	28	4.27	1.26	28	4.44	1.19	28	4.28	1.02

Note. 1.50 = *Strongly Disagree*, 1.51–2.50 = *Disagree*, 2.51–3.50 = *Slightly Disagree*, 3.51–4.50 = *Slightly Agree*, 4.51–5.50 = *Agree*, and 5.51–6 = *Strongly Agree*

Objective 4 was to determine if a linear relationship existed between involvement level, autonomy, and reflection and students' levels of self-perceived civic responsibility. We used a simultaneous multiple linear regression. The first regression model (see Table 6) analyzed the selected predictor variables on students' connection to community mean scores. Overall, the first regression model explained 25% of variance (adjusted $R^2 = 0.22$) in students' connection to community mean scores ($F_{9, 272} = 9.91$; $p \leq .05$). The independent variable autonomy–locus of causality ($t = 3.45$; $p = .01$) was found to significantly explain variance in connection to community construct mean scores. The level of participation during Periods 1 through 3 ($t = 1.77$; $p = .08$), level of participation during Period 4 ($t = -0.10$; $p = .92$), time in each civic engagement activity during Periods 1 through 3 ($t = -0.48$; $p = .63$), time in each civic engagement activity during Period 4 ($t = 0.80$; $p = .43$), autonomy–volition ($t = 1.26$; $p = .21$), autonomy–perceived control ($t = -0.96$; $p = .34$), autonomy–continued participation ($t = 1.21$; $p = .23$), and structured reflection provided ($t = 1.52$; $p = .13$) did not explain a statistically significant amount of variance in the connection to community construct.

Table 6

Explained Variance in Students' Connection to Community (n = 282)

Variable	<i>R</i>	<i>R</i> ²	<i>b</i>	β	<i>t</i> -value	Sig.
Model	.50	.25				.01*
Level of civic engagement participation						
Periods 1–3			.06	.14	1.77	.08
Period 4 (following reflection)			.01	-.01	-0.10	.92
Time in each civic engagement activity						
Periods 1–3			.00	-.03	-0.48	.63
Period 4 (following reflection)			.00	.05	0.80	.43
Autonomy constructs						
Volition			.11	.09	1.26	.21
Perceived control			-.05	-.06	-0.96	.34
Locus of causality			.35	.32	3.45	.01*
Continued participation			.12	.11	1.21	.23
Structured reflection provided			.25	.09	1.52	.13
(Constant)			1.50			

Note. Adjusted $R^2 = .22$; $F_{9, 272} = 9.91$; * $p \leq .05$.

The second regression model (see Table 7) analyzed the selected predictor variables on students' community needs awareness mean scores. Overall, the second regression model explained 27% of variance (adjusted $R^2 = .24$) in students' community needs awareness mean scores ($F_{9, 272} = 10.97$; $p \leq .05$). The autonomy–locus of causality ($t = 2.23$; $p = .03$) and structured reflection provided ($t = 2.39$; $p = .02$) were found to significantly explain variance in community needs awareness mean scores. The level of participation during Periods 1 through 3 ($t = 1.50$; $p = .13$), level of participation during Period 4 ($t = 0.91$; $p = .37$), time in each civic engagement activity during Periods 1 through 3 ($t = 0.64$; $p = .53$), time in each civic engagement activity during Period 4 ($t = 1.82$; $p = .07$), autonomy–volition ($t = 1.82$; $p = .07$), autonomy–perceived control ($t = -0.26$; $p = .80$), and autonomy–continued participation ($t = 1.41$; $p = .16$) did not explain a statistically significant amount of variance in community needs awareness construct.

Table 7

Explained Variance in Students' Community Needs Awareness (n = 282)

Variable	<i>R</i>	<i>R</i> ²	<i>b</i>	β	<i>t</i> -value	Sig.
Model	.52	.27				.01*
Level of civic engagement participation						
Periods 1–3			.05	.12	1.50	.13
Period 4 (following reflection)			.07	.06	0.91	.37
Time in each civic engagement activity						
Periods 1–3			.00	.04	0.64	.53
Period 4 (following reflection)			.00	.06	1.08	.28
Autonomy constructs						
Volition			.17	.13	1.82	.07
Perceived control			-.02	-.02	-0.26	.80
Locus of causality			.23	.21	2.23	.03*
Continued participation			.15	.12	1.41	.16
Structured reflection provided			.44	.13	2.39	.02*
(Constant)			.88			

Note. Adjusted $R^2 = .24$; $F(9, 272) = 10.97$; $*p \leq .05$.

The third regression model (see Table 8) analyzed the selected predictor variables on students' civic efficacy construct mean scores. Overall, the third regression model explained 31% of variance (adjusted $R^2 = .29$) in students' civic efficacy mean scores ($F_{9, 272} = 13.55$; $p \leq .05$). The autonomy–volition ($t = 2.08$; $p = .04$), autonomy–locus of causality ($t = 3.51$; $p = .01$), and structured reflection provided ($t = 2.10$; $p = .02$) were found to significantly explain variance in civic efficacy mean scores. The level of participation during Periods 1 through 3 ($t = 1.63$; $p = .11$), level of participation during Period 4 ($t = 1.04$; $p = .30$), time in each civic engagement activity during Periods 1 through 3 ($t = 0.65$; $p = .52$), time in each civic engagement activity during Period 4 ($t = 0.95$; $p = .34$), autonomy–perceived control ($t = 0.14$; $p = .89$), and autonomy–continued participation ($t = 0.29$; $p = .77$) did not explain a statistically significant amount of variance in civic efficacy construct mean scores.

Table 8

Explained Variance in Students' Civic Efficacy (n = 282)

Variable	<i>R</i>	<i>R</i> ²	<i>b</i>	β	<i>t</i> -value	Sig.
Model	.56	.31				.01*
Level of civic engagement participation						
Periods 1–3			.06	.12	1.63	.11
Period 4			.08	.07	1.04	.30
Time in each civic engagement activity						
Periods 1–3			.00	.04	0.65	.52
Period 4			.00	.05	0.95	.34
Autonomy constructs						
Volition			.20	.14	2.08	.04*
Perceived control			.01	.01	0.14	.89
Locus of causality			.38	.31	3.51	.01*
Continued participation			.11	.02	0.29	.77
Structured reflection provided			.38	.11	2.10	.04*
(Constant)			.49			

Note. Adjusted $R^2 = .29$; $F(9, 272) = 13.55$; $*p \leq .05$.

Conclusions, Implications, and Recommendations

Due to the purposive sampling techniques, the findings are limited to the study participants. For Objective 1, we found that nearly all students participated in one or more FFA civic engagement activities, with an average participation of two to seven activities and 20 to 123 total hours of engagement. This conclusion conflicts with existing literature, where less than 60% of all public-school students participate in school-based civic engagement activities (Flanagan, Levine, & Settersten, 2009; National Center for Educational Statistics, 1999; Skinner & Chapman, 1999; Torney-Purta, 2002). It can be implied that constant FFA civic engagement led to higher civic engagement participation levels for more students.

For Objective 2, we concluded that, overall, students in this study had an autonomous experience during FFA civic engagement activities. However, students disagreed on having experienced control or making decisions during FFA civic engagement activities. We further concluded that these activities did not provide students a high degree of perceived control. These conclusions contradict the purpose of the National FFA Organization as a student-led organization (National FFA Organization, 2018) but support previous literature that identified a lack of autonomy within the National FFA Day of Service (Roberts, Terry, Brown, & Ramsey, 2016). Several possible implications can be made from this conclusion. First, perhaps the teachers were not capable of facilitating student control or decision making during FFA civic engagement activities. Some educators may feel uncomfortable relinquishing control to students. Next, there was a high number of students involved in FFA civic engagement activities. An increased number of students could reduce opportunities for individual students to experience control or decision making during an activity. Finally, perhaps teachers do not realize the developmental importance of allowing students to learn from making decisions.

Overall, students viewed themselves as somewhat responsible for the well-being of their immediate communities. The results regarding students' levels of self-perceived civic responsibility suggest that students possess positive civic attitudes related to civic responsibility; however, youth do not necessarily feel strongly about their roles as responsible community members. It can be implied that room for improvement in civic attitudes exists among this group of students. These students' civic attitudes are positive but not necessarily strong. Students reported decreasing trends in self-perceived civic responsibility over time. Several implications can be made from this conclusion. First, the decrease in civic responsibility scores could be attributed simply to test wiseness of the subjects in the study. Additionally, a lack of reflection following civic engagement reduces students' civic attitudes. Civic engagement without reflection can be harmful to youths' civic attitudes (Blyth, Saito, & Berkas, 1997).

Analyses indicated that the proportion of variance in each civic responsibility construct could be predicted using a linear combination of involvement level, autonomy, and reflection. Participation level, autonomy, and reflection in FFA civic engagement activities collectively explained a significant portion of students' levels of self-perceived civic responsibility. This conclusion supports existing designs of effective civic education programs (Billig, 2000; Bringle & Hatcher, 1999; Furco & Billig, 2002; Levine & Higgins-D'Alessandro, 2010; Reeve, Bolt, & Cai, 1999; Rose-Krasnor et al., 2006; Yates & Youniss, 1999; Youniss & Yates, 1997). This conclusion provides a unique contribution to the agricultural education profession. No such investigations exist to document essential elements necessary for FFA civic engagement experiences. The frequency of participation was not a significant individual predictor of students' levels of civic responsibility. This conclusion conflicts with existing literature promoting involvement level as a crucial element to civic education (Fiester, Simpkins, & Bouffard, 2005; Rose-Krasnor et al., 2006; Warter & Grossman, 2002). Locus of causality and volition

were both found to be significant individual predictors of civic responsibility. Perceived control and continued participation were not found to be significant individual predictors of civic responsibility. This conclusion contradicts the work of scholars who assert all four constructs as crucial elements of autonomous learning environments (Reeve, 2002; Reeve, 2006; Ryan & Deci, 2000). Structured reflection was statistically significant in predicting students' community needs awareness and civic efficacy mean scores. This conclusion supports literature asserting the importance of reflection following civic engagement activities (Bringle & Hatcher, 1999; Camino & Zeldin, 2002; Conway, Amel, & Gerwein, 2009; Stafford, Boyd, & Lindner, 2003; Terry & Bohnenberger, 2004; Youniss & Yates, 1997). The regression models imply that youth leaders and educators should provide a combination of civic engagement opportunities that foster autonomy and include structured reflection.

We recommend that FFA programming should include a variety of civic engagement activities so students can experience a higher level of civic engagement. Civic engagement activities are more impactful when the activity is internally vital to the student. To support student autonomy, educators should allow as many students as possible to experience control or decision-making responsibilities during the civic engagement. For teacher educators, we recommend stressing the developmental importance of the reflection and student autonomy elements when preparing pre-service teachers to lead FFA civic engagement activities. Teacher educators and state education leaders are encouraged to provide professional development focused on incorporating experiential learning reflection and autonomy for practicing teachers as well.

Concerning future research, we recommend a closer analysis of the *types* of civic engagement activities utilized within FFA programming and the impact of various activities on civic responsibility. For instance, is it more impactful for students to see or interact with the persons or organizations they are helping? Are there certain civic engagement activities more developmentally appropriate for adolescent youth? A more in-depth look into the varying types and structures of civic engagement activities could further inform the practices of educators and FFA leaders. Studies should be conducted to investigate catalysts that support autonomy both within civic engagement and other areas of FFA programming. Researchers should also study the effectiveness of various post-activity reflection approaches on students' civic responsibility, as well as how to best prepare teachers to lead reflection activities.

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