The Effect Teacher Led Reflection Plays on Students' Civic Responsibility Perceptions Following FFA Civic Engagement Activities

William A. Bird[1], Amanda M. Bowling[2], & Anna L. Ball[3]

Abstract

Civic engagement activities are utilized to enhance youth's citizenship skills and content knowledge, and to strengthen the community's status. Post-activity reflections can be utilized to strengthen the benefits of civic engagement activities but are often underutilized. This quasi-experimental study sought to determine the influence of guided reflection following FFA civic engagement activities on students' self-perceived civic responsibility. Through the use of a nonequivalent control group pretest-posttest design, four schools and students who participated in FFA civic engagement activities (n = 138) were randomly assigned to either a group discussion after reflection or a no-reflection group. It was found that throughout all time periods, students felt slightly connected to their community, community needs awareness, and civic efficacy. It was also found that the reflection treatment group exhibited statistically significantly higher community needs awareness and civic efficacy construct mean scores than the no-reflection group. It is recommended for FFA chapters to provide a wide variety of short-term civic engagement activities with reflection components.

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

Introduction and Conceptual Framework

Civic engagement activities can enhance youths' capabilities as productive community members while simultaneously improving the status of local communities (Lin, 2015; Waterman, 1997). If schools and youth programs intend to develop responsible civic attitudes, it is crucial for these groups to utilize effective methods for facilitating meaningful civic engagement experiences. Civic engagement activities are a widely utilized component at all levels of FFA programming (National FFA Organization, 2016). However, the civic engagement component of FFA programming remains largely unexamined. As a result, current FFA civic engagement practices may not fully maximize students' civic learning and development.

Civic engagement activities unite human efforts and resources toward identifying and correcting existing community problems (Adler & Goggin, 2005; Camino & Zeldin, 2002; Diller, 2001; Jans, 2004). As a result of civic engagement, individuals form stronger bonds with other community members, enhance their sense of community pride, and increase their concern for improving the status of the community (Flanagan & Faison, 2001; Furco, Jones-White, Huesman,

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[1] William Bird is an Assistant Professor of Agricultural Education in the Department of Agriculture, Geosciences, and Natural Resources at the University of Tennessee at Martin, 268 Brehm Hall, Martin TN 38238, wbird1@utm.edu

[2] Amanda Bowling is an Assistant Professor of Agricultural Education in the Department of Agricultural Communication, Education, and Leadership at The Ohio State University, 2120 Fyffe Rd., Columbus, OH 43210, bowling.175@osu.edu

[3] Anna Ball is a Faculty Fellow in the Office of the Provost and Professor of Agricultural Education in the Department of Agricultural Education and Leadership at the University of Missouri, 127 Gentry Hall, Columbia, MO 65211, ballan@missouri.edu

& Gorny, 2016). During adolescence, civic values are more likely to take shape as these individuals are far more open to learning civic concepts than in any other period of life; it may be adolescents' last opportunity to develop behaviors as positive 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 provide youth a positive connection to societal improvement (McIntosh, Metz, & Youniss, 2005; Seider, Soutter, & Clark, 2016). 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; Langston, 1987). If adolescent youth miss the opportunity to become civically involved, their civic capacities in adulthood could be diminished (Finlay, Wray-Lake, Warren, & Maggs, 2014).

Civic engagement activities are often provided in schools and youth programs to enhance youths' citizenship skill development. Educators throughout the United States routinely utilize civic engagement activities to enhance students' content knowledge, develop citizenship skills, and simultaneously strengthen the community's status (Sherrod, 2005; Yates & Youniss, 1999; Youniss & Yates, 1997). FFA chapters can provide numerous civic engagement involvement outlets for youth, commonly offered as community-based service learning or curriculum-based service learning projects (National FFA Organization, 2016; 2017; Ricketts & Ricketts, 2011; Woodward & Rudd, 2016). FFA sponsored civic engagement activities can occur in a variety of ways, including activities such as providing food to those unable to feed themselves, repairing or constructing community structures, or developing a community garden to educate the community on food production (National FFA Organization, 2017). Research indicates that short-term intensive community-based service learning projects support the competence, autonomy, and relatedness of the youth participants and also increases the likelihood of future participation in service projects (Kackar-Cam & Schmidt, 2014). FFA specific civic engagement activities potentially enhance agriculture students' sense of civic responsibility (Brandell & Hinck, 2005; Furco et al., 2016; Skinner & Chapman, 1999).

A conceptual model (see Figure 1) was developed using existing youth development and civic engagement literature to guide the current investigation. The conceptual model focuses on the development of civic responsibility through participating in civic engagement activities and post-engagement reflections. Civic responsibility encompasses three dimensions: an individual's 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 represents that an individual perceives interconnectedness to other community members 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 communal 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). Theoretically, youths' sense of civic responsibility increases as a result of civic engagement involvement.

However, the simple act of participating in civic engagement activities does not necessarily maximize civic responsibility development (Bringle & Hatcher, 1999; Finlay et al., 2014). A critical component to successful, meaningful, and developmentally constructive civic engagement involves time for youth to critically process the civic engagement experience using structured post-activity reflection (Billig, 2000; Mitchell et al., 2015). Civic engagement reflection has been defined as an activity that "connects the experience with content, skills, and values" of youth to the larger community through meaningful reflective dialogue (Billig, 2000, p. 662). The form of civic engagement reflections varies greatly, including reflective papers, journals, group projects, presentations, group discussions, peer debriefing, and one-on-one discussions (Blyth, Saito, & Berkas, 1997). Regardless of form, structured reflection requires youth to consciously examine,

collaborate, and contemplate what occurred during the civic engagement activity as well as how their experience will impact them in the future (Bringle & Hatcher, 1999; Mitchell et al., 2015). The civic engagement experience, and ultimate learning, becomes more meaningful when youth critically assess the experience to create new ideas, beliefs, or viewpoints (Eyler & Giles, 1997).

Meaningful and effective civic engagement reflection includes three components (Bradley, 1997). The first component of structured guided reflection is conceptualization. Reflection links an individual's understanding of concrete events to more abstract conceptualizations beyond themselves (Camino & Zeldin, 2000; Conway, Amel, & Gerwein, 2009; Terry & Bohnenberger, 2004). Formally implemented structured reflection offers a more consistent level of cognitive processing for all involved youth (Eyler & Giles, 1997). Structured reflection also provides a more equal opportunity for all youth to process the experience and ultimately reach higher levels of understanding. The second component of structured guided reflection is the realization of ability and impact. Most event reflection by youth increases their personal 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). The final component of structured guided reflection is transfer to future situations. Reflection must objectively direct youth to think about the implications of their civic engagement experiences. Adults should guide youths' thinking so as to transfer what is learned from the civic engagement experience to other situations (Hofer, 1999; Mitchell et al., 2015). Youth will derive little meaning from ambiguous reflection and will fail to consider the experience in more global ways (Bringle & Hatcher, 2004).

Civic engagement activities should include a meaningful and thoughtfully structured post-activity reflection component (Waterman, 1997). Post-civic engagement reflection enhances youths' conceptualization of the civic engagement experience, realization of civic impact, and transfer of knowledge to future civic situations (Bringle & Hatcher, 1999). If civic engagement experiences lack reflection, students may not reach their full developmental potential (Blyth et al., 1997; Hatcher & Bringle, 1997). The utilization and effect of reflection within FFA civic engagement programming holds great potential but remains largely unexplored.
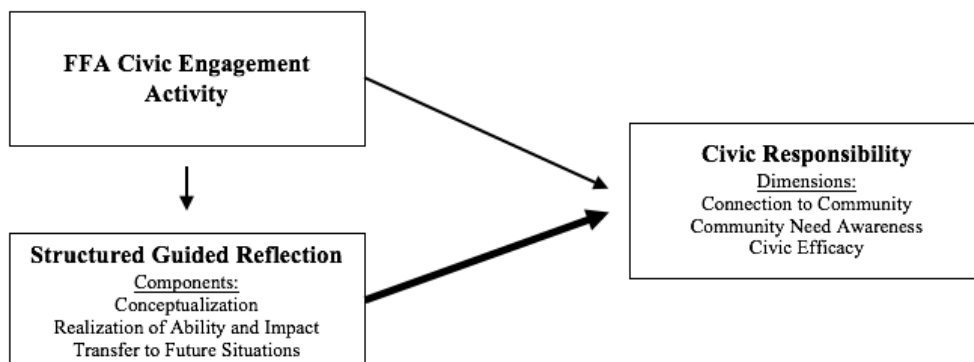

Figure 1. Conceptual model of critical components during FFA civic engagement activities.

Purpose and Objectives

The purpose of this study was to determine the influence of guided reflection following FFA civic engagement activities on students' self-perceived civic responsibility. The following research objectives and null hypothesis were generated to guide the study:

1. Describe students' self-perceived levels of civic responsibility.
2. Compare the effect of post-civic engagement reflection on students' levels of civic responsibility.

> H_0: μ Reflection = μ No reflection
>
> In the population, no statistical difference exists within the students' level of civic responsibility based upon the level of post-civic engagement reflection.

Methods

This study utilized a quasi-experimental, nonequivalent control group pretest-posttest design (see Table 1; Ary, Jacobs, & Sorensen, 2010; Shadish, Cook, & Campbell, 2002). The nonequivalent control group pretest-posttest design is appropriate because subjects within intact existing groups, such as FFA chapters, cannot be randomly assigned to groups to establish equality (Shadish et al., 2002). Students' self-perceived levels of civic responsibility were measured utilizing a paper and pencil format of the Civic Reasonability Scale consisting 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 influence community issues in a positive way (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 panel of experts (*n* = 7) reviewed the instrument for face and content validity. Furco et al. (1998) established reliability estimates yielding a Cronbach's alpha range of .76 to .93 for all constructs. We determined the instrument as a valid and reliable measure of self-perceived civic responsibility (Nunnally, 1978).

We gathered data on the same unit of student subjects, making it a dependent samples design. Four schools were selected for participation because they were located in a rural community and consistently provided FFA sponsored civic engagement activities lacking a reflection component. 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. The design utilized four data collection periods: November, Year 1; May, Year 2; November, Year 2; and March, Year 3. Upon conclusion of the third data collection point, schools were randomly assigned to the control or experimental groups. Two schools were randomly assigned to provide a teacher-facilitated reflection treatment protocol to deliver in a group discussion format. The reflection protocol was adapted from the Six Step Civic Reflection Process (Bradley, 1997) and provided a consistent treatment among treatment group subjects. The other two FFA chapters provided civic engagement activities without reflection (see Table 1). A fifth and sixth posttest data collection point was planned but was unable to be completed due to limited time and resources.

Table 1

Graphic Representation of the Research Design

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

FFA advisors of the programs selected for 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. The training consisted of a one-hour orientation focused on providing guidance on how to conduct the reflections and how to utilize the scripted reflection questions. The participating schools provided the researcher a sample of 372 students. Students, regardless of FFA membership status, who participated in FFA civic engagement activities before and after the treatment assignment ($n = 138$) were the final usable sample from which data was gathered during all four periods. The final usable sample ($n = 138$) were students who completed the consent process and participated in at least one FFA civic engagement activity during each time period. 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, lived on a rural farm, and had grades of mostly A's and B's.

We used descriptive statistics to analyze the findings for Research Objective 1. For Research Objective 2, we used analyses of covariance (ANCOVA) to compare groups' mean scores in order to test the null hypothesis. First, we used a Levene's test of equality of variance to test the homogeneity of variance assumption. They tested the null hypothesis stating that no differences existed in the error variance between treatment groups for the connection to community construct ($F_{1,136} = 0.15$, $p = .70$), community needs awareness construct ($F_{1,136} = 0.01$, $p = .93$), and civic efficacy ($F_{1,136} = 0.04$, $p = .84$). The differences of error variances were not statistically significant for any construct; the assumption of homogeneity of variance was tenable. For all statistical analyses, alpha levels were set a priori at $\alpha = 0.05$.

Findings

Research Objective 1 sought to describe students' levels of self-perceived civic responsibility. Civic responsibility was operationally defined as (a) connection to the community; (b) community needs awareness; and (c) civic efficacy. Table 2 displays the means and standard deviations for civic responsibility constructs by school for each time period as well as the summated civic responsibility construct scores. In regard to the connection to the community construct, students from School 1 ($M = 4.58$; $SD = 0.77$) and School 4 ($M = 4.73$; $SD = 1.00$) reported an overall response of agree. Respondents indicated they slightly agreed with the connection to the 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 the community needs awareness construct. The community needs awareness construct means scores ranged from 3.59 ($SD = 0.89$) to 4.29 ($SD = 1.00$) across all schools. Students from School 4 reported the highest overall level of community needs awareness ($M = 4.29$; $SD = 1.00$) among all schools, followed by students from School 1 ($M = 4.58$; $SD = 0.77$), students from School 3 ($M = 3.99$; $SD = 0.88$), and students from School 2 ($M = 3.59$; $SD = 0.89$). Students from School 1 ($M = 4.16$; $SD = 0.92$), School 3 ($M = 3.84$; $SD = 0.97$), and School 4 ($M = 4.28$; $SD = 1.02$) responded overall with slightly agree when presented with the civic efficacy construct. Students from School 2 reported the lowest levels of agreement with the continued participation construct, responding that overall, they slightly disagree ($M = 3.40$; $SD = 0.96$).

Table 2

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

Civic responsibility construct	Period 1			Period 2			Period 3			Period 4			Total		
	n	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*	*n*	*M*	*SD*
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

Civic responsibility construct scores for each school were collapsed within each time period to form summated construct scores (see Table 3). The summated levels of students' self-perceived civic responsibility among all schools revealed that students slightly agreed they had feelings of connection to the community ($M = 4.47$; $SD = 0.85$), community needs awareness ($M = 3.98$; $SD = 0.91$), and civic efficacy ($M = 3.86$; $SD = 1.00$).

Table 3

*Summated Levels of Students' Self-Perceived Civic Responsibility Among All Schools (*n *= 282)*

Civic responsibility construct	Period 1 ($n = 282$)		Period 2 ($n = 247$)		Period 3 ($n = 269$)		Period 4 ($n = 282$)		Total ($n = 282$)	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Connection to the community	4.66	0.84	4.49	0.95	4.38	1.00	4.43	1.07	4.47	0.85
Community needs awareness	4.09	0.91	3.99	1.04	3.92	1.06	4.02	1.13	3.98	0.91
Civic efficacy	3.96	1.04	3.83	1.14	3.79	1.19	3.93	1.20	3.86	1.00

Note. Coded: 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*.

Objective 2 sought to compare the effect of a post-civic engagement reflection on students' civic responsibility. The researcher used ANCOVA to compare group mean scores and test the null hypothesis. Civic responsibility scores for time Periods 1 through 3 were collapsed into a single pretreatment civic responsibility score for comparison to the single posttreatment civic responsibility score. Summary statistics for treatment groups were calculated for comparison of all subjects ($n = 138$).

Connection to Community

As shown in Table 4, students in the no reflection group had an overall pretreatment connection to community construct mean score of 4.66 ($SD = 0.78$) and an overall posttreatment connection to community construct mean score of 4.50 ($SD = 0.98$). Students in the reflection group had an overall pretreatment connection to community construct mean score of 4.68 ($SD = 0.75$) and an overall posttreatment connection to community construct mean score of 4.71 ($SD = 0.94$).

Table 4

Comparison of Pretreatment and Posttreatment Connection to Community Construct Mean Scores between No Reflection and Reflection Groups (n = 138)

		Pretreatment					Posttreatment			
				Range					Range	
Group	*n*	*M*	*SD*	Min	Max	*M*	*SD*	Min	Max
No Reflection	53	4.66	0.78	1.00	6.00	4.50	0.98	1.00	6.00
Reflection	85	4.68	0.73	1.00	6.00	4.71	0.94	1.00	6.00
Total	138	4.67	0.75	1.00	6.00	4.63	0.96	1.00	6.00

Note. Coded: 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*.

We tested the null hypothesis for the connection to community construct using ANCOVA and used students' pretreatment connection to community construct scores as the covariate (see Table 5). The *F*-value ($F_{2,135} = 2.52$, $p = .12$) was not statistically significant, indicating there was no difference among students' connection to community construct scores between treatment groups when controlling for pretreatment connection to community construct scores.

Table 5

Analysis of Covariance (ANCOVA) in Connection to Community Construct Scores by Treatment Group (n = 138)

Source	Sum of Squares	*df*	Mean Square	*F*	*p*
Treatment Group	1.19	1	1.19	2.52	.12
Covariate	60.23	1	60.23	127.38	.01*
Error	63.83	135			

Note. Adjusted $R^2 = 0.48$; *$p \leq .05$.

Community Needs Awareness

As shown in Table 6, students in the no reflection group had an overall pretreatment community needs awareness construct mean score of 4.20 (*SD* = 0.85) and an overall posttreatment community needs awareness construct mean score of 4.10 (*SD* = 1.07). Students in the reflection group had an overall pretreatment community needs awareness construct mean score of 4.23 (*SD* = 0.74) and an overall posttreatment community needs awareness construct mean score of 4.41 (*SD* = 1.03).

Table 6

Comparison of Pretreatment and Posttreatment Community Needs Awareness Construct Mean Scores between No Reflection and Reflection Groups (*n* = 138)

| | | Pretreatment | | | | Posttreatment | | | |
| | | | | Range | | | | Range | |
Group	*n*	*M*	*SD*	Min	Max	*M*	*SD*	Min	Max
No reflection	53	4.20	0.85	1.00	6.00	4.10	1.07	1.00	6.00
Reflection	85	4.23	0.74	1.00	6.00	4.41	1.03	1.00	6.00
Total	138	4.22	0.78	1.00	6.00	4.30	1.05	1.00	6.00

Note. Coded: 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*.

We tested the null hypothesis for the community needs awareness construct using ANCOVA and used students' pretreatment community needs awareness construct scores as the covariate (see Table 7). The *F*-value ($F_{2,135} = 4.44$, $p = .04$, $\eta^2 = 0.02$) was statistically significant, indicating a significant difference existed among students' community needs awareness construct scores between treatment groups when controlling for pretreatment community needs awareness construct scores.

Table 7

Analysis of Covariance (ANCOVA) in Community Needs Awareness Construct Scores by Treatment Group (*n* = 138)

Source	Sum of Squares	*df*	Mean Square	*F*	*p*
Treatment group	2.53	1	2.53	4.44	.04*
Covariate	72.29	1	72.29	126.98	.01*
Error	76.8863	135			

Note. Adjusted $R^2 = 0.49$; *$p \leq .05$.

Civic Efficacy

As shown in Table 8, students in the no reflection group had an overall pretreatment civic efficacy construct mean score of 4.15 (*SD* = 0.89) and an overall posttreatment civic efficacy construct mean score of 4.11 (*SD* = 1.05). Students in the reflection group had an overall pretreatment civic efficacy construct mean score of 4.10 (*SD* = 0.93) and an overall posttreatment civic efficacy construct mean score of 4.35 (*SD* = 1.12).

Table 8

Comparison of Pretreatment and Posttreatment Civic Efficacy Construct Mean Scores between No Reflection and Reflection Groups (n = *138*)

Group	n	Pretreatment				Posttreatment			
		M	*SD*	Min	Max	*M*	*SD*	Min	Max
				Range				Range	
No reflection	53	4.15	0.89	1.00	6.00	4.11	1.05	1.00	6.00
Reflection	85	4.10	0.93	1.00	6.00	4.35	1.12	1.00	6.00
Total	138	4.12	0.91	1.00	6.00	4.26	1.09	1.00	6.00

Note. Coded: 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*.

The null hypothesis for the civic efficacy construct was tested using ANCOVA and used students' pretreatment civic efficacy construct scores as the covariate (see Table 9). The *F*-value ($F_{2,135} = 5.02$, $p = .03$, $\eta^2 = 0.02$) was statistically significant, indicating a significant difference existed among students' civic efficacy construct scores between treatment groups when controlling for pretreatment civic efficacy construct scores.

Table 9

Analysis of Covariance (ANCOVA) in Civic Efficacy Construct Scores by Treatment Group (n = *138*)

Source	Sum of Squares	*df*	Mean Square	*F*	*p*
Treatment group	2.78	1	2.78	5.02	.03*
Covariate	87.39	1	87.39	157.81	.01*
Error	74.76	135			

Note. Adjusted $R^2 = 0.54$; *$p \leq .05$.

We rejected the null hypothesis stating that no difference existed between the groups' levels of civic responsibility in favor of the research hypothesis. Summary statistics for treatment group comparisons indicated students who participated in FFA civic engagement activities and also experienced post-civic engagement reflection had significantly higher levels of civic responsibility.

Conclusions, Implications, and Recommendations

Regarding Research Objective 1, throughout all time periods, students slightly agreed with feeling connected to their community, possessed slight community needs awareness, and slight civic efficacy. We concluded that, overall, students viewed themselves as somewhat responsible for the well-being of their immediate communities. All students' levels of self-perceived civic responsibility decreased throughout the first three time periods; students' levels of self-perceived

civic responsibility increased from Period 3 to Period 4. We also concluded that students' self-perceived levels of civic responsibility tended to decrease over time.

The results regarding students' levels of self-perceived civic responsibility suggest that students possess positive civic attitudes related to civic responsibility; however, youth don't necessarily feel strongly about their role as a responsible community member. It can be implied that there is room for improvement in civic attitudes with 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, adolescence is a developmental time period when youth experiment and come to know the adult world beyond their immediate home (Dwyer & Hunt-Jackson, 2002; Lerner, 2009). Adolescent youth may naturally develop a more critical perception of their own civic attitudes based upon civic engagement experiences (Levine & Higgins-D'Alessandro, 2010). Second, none of these FFA chapters provided a post-civic engagement reflection component prior to Period 4. A final explanation of students' decreasing levels of civic responsibility could be that a lack of reflection following civic engagement reduces students' civic attitudes. Civic engagement without reflection can be harmful to youths' civic attitudes (Blyth et al., 1997). In other words, FFA civic engagement activities without reflection could potentially do more harm than good to students' civic attitudes. Finally, the decrease in civic responsibility scores could be attributed simply to test wiseness of the subjects in the study.

Regarding Research Objective 2, students in both treatment groups displayed similar pretreatment scores for each civic responsibility construct. The differences between the treatment groups' mean pretreatment civic responsibility construct scores ranged from 0.02 to 0.05. We concluded that students had similar levels of self-perceived civic responsibility construct scores prior to the experimental treatment. It should be noted that although this study sought to control variance differences between groups by utilizing a quasi-experimental design, it is not possible to entirely account for all prior experiences and reflection levels of subjects. This limitation should be considered when interpreting these results. We operated under the assumption that prior experiences were generally homogenous among all subjects.

Differences existed between posttreatment civic responsibility construct scores when controlling for pretreatment civic responsibility construct scores. Students in the reflection treatment group displayed higher average scores than the no reflection group for all three civic responsibility construct scores. The reflection groups' posttreatment connection to community construct score was 0.21 higher than the no reflection group, but the difference between means was not statistically significant. The reflection treatment group exhibited significantly higher community needs awareness and civic efficacy construct mean scores than the no reflection group. We concluded that students who experienced a structured reflection following FFA civic engagement activities gained higher levels of self-perceived civic responsibility. The positive influence of structured reflection aligns with the works of numerous scholars supporting the benefits of post-civic engagement reflection (Bringle & Hatcher, 1999; Camino & Zeldin, 2000; Conway et al., 2009; Stafford, Boyd, & Lindner, 2003; Terry & Bohnenberger, 2004; Youniss & Yates, 1997). However, this finding provides the first empirical support of structured student reflection within FFA civic engagement programming.

Finally, students in the reflection group displayed an increase in mean scores among all three constructs of civic responsibility from pretreatment to posttreatment measures. Conversely, students in the no reflection group showed a decrease in all three constructs from the pretreatment to posttreatment measures. We concluded that youth decline in their level of self-perceived civic

responsibility when not provided a structured reflection following FFA civic engagement activities. This conclusion supports existing literature stating that youth can develop less responsible attitudes from civic engagement lacking a reflection component (Blyth et al., 1997). This finding is also a unique contribution to youth development programming within FFA programming.

The conclusions implied that reflection components of civic engagement can potentially serve as a valuable pedagogical tool within FFA programming. Through reflection, youth can enhance their connection with their community, their awareness of community needs, and their efficacy toward improving community issues. While benefits of civic engagement reflection exist, civic engagement opportunities provided at the local, state, or national levels rarely promote or provide reflection components (National FFA Organization, 2016). Additionally, the participating FFA chapters did not routinely utilize structured reflection prior to treatment group assignments. It could be implied that while adult FFA leaders recognize the importance of civic engagement, they are unaware of the value of reflection for student development. It could be further implied that adult FFA leaders lack the resources or skills necessary to conduct civic engagement-based reflection sessions with youth.

Secondly, the differences between treatment groups were all positive, and two of the three were statistically significant. Some scholars and practitioners may argue that these differences are impractical. However, the treatment length lasted less than four months, a relatively short period of time compared to long-term civic engagement and reflection models (Bringle & Hatcher, 1999; Waterman, 1997). Thus, FFA civic engagement activities that utilize reflection for periods of time longer than four months could deliver more significant impact on students' self-perceived level of civic responsibility (Bringle & Hatcher, 2004).

Finally, the conclusions suggest that FFA civic engagement activities without reflection actually reduce the students' level of civic responsibility. It can be implied from this that students may actually lose citizenship skills purported to be gained during FFA civic engagement activities if they are not allowed to reflect on their civic engagement experiences. No reflection following FFA civic engagement activities could lead to youth becoming less effective community members (Blyth et al., 1997).

From the conclusions and implications, is it recommended for FFA chapters to provide a wide range of short-term civic engagement activities that incorporate long-term reflection components. Post-civic engagement reflections will allow youth to thoughtfully examine their experiences and will be more likely to gain positive citizenship attitudes. Adult FFA leaders should develop a comprehensive plan to connect each civic engagement activity and allow the reflections to scaffold the youths' civic responsibility. The National FFA Organization, state staff, and teacher educators should provide professional development for in-service teachers to engage them in impactful civic engagement activities that incorporate post-activity reflections. Teacher educators should also focus on incorporating lessons that emphasize the importance of immersing youth in civic engagement and strengthen civic responsibility through developed reflections. The preservice lessons and in-service professional development workshops should focus on developing the teachers' ability to develop nonformal student reflections, which connect the various civic engagement experiences students have outside of the agriculture classroom.

It is also recommended that this study be replicated on a larger sample and should utilize more rigorous sampling methods. Researchers should also further define the various types of civic engagement activities. Such an investigation could examine whether certain civic engagement activities are more impactful on youths' civic responsibility development than others. Researchers should also investigate the effectiveness of different post-civic engagement reflection approaches.

The type of reflection utilized in the current study consisted of a teacher-led group discussion with students following FFA civic engagement activities. Other types of reflection may be more effective to enhancing students' civic attitudes.

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