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Although there is strong support for community engagement and community-based participatory research (CBPR) from public health entities, medical organizations, and major grant-funding institutions, such endeavors often face challenges within academic institutions. Fostering the interest, skills, and partnerships to undertake participatory research projects and truly impact the community requires an interdisciplinary team with the competencies and values to engage in this type of research. Discussed in this article is how a CBPR-focused team evolved at a southern university, with emphasis on the activities that supported group identity, contributed to its evolution, and positioned the group to speak with authority in promoting CBPR as a tool for addressing health disparities.

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This article documents the innovative practices and initial outcomes from the Grand Rapids Engaged Department Initiative, a cross-institutional collaboration designed in response to the failures of higher education to systematically engage in place. Created to incentivize and resource systemic and cultural shifts across three institutions of higher education in the region, the initiative seeks to increase faculty knowledge and skills in community-based teaching, foster inter- and intracollaborations, expand students' community-based learning opportunities, and enhance community partnerships. Initial outcomes and stakeholder perceptions are detailed using previous validated research instruments and systemic action research practices. An examination of the three institutions and the seven participating departments reveals how structural and cultural barriers pose heavy challenges to cross-institutional engagement; we also highlight promising countermeasures for effecting change, including inclusive visioning processes and accountability mechanisms. Recommendations aim to support others' efforts to generate and sustain collaborative engagement.

165..... A Decade of Community Engagement Literature: Exploring Past Trends and Future Implications

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Academic journals play a lead role in disseminating community–campus engagement scholarship. However, assessment of the content, methodologies, and authorship of this published body of works is lacking. This study was performed to review publication trends in the *Journal of Higher Education Outreach and Engagement (JHEOE)*, an academic journal focused on community engagement and outreach, during a 10-year time span. A content analysis framework was used to incorporate descriptive and correlational analyses. Two findings were of particular note. One was the increased prominence of articles on service-learning in the most recent years examined. Another was the absence of articles treating finance, strategic planning, community voice, and faculty promotion and tenure. Because these topics have significance for institutionalizing community engagement in higher education, this trend suggests an opportunity to broaden the topics published in the *Journal* and the field.

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From the Editor . . .

We've Come a Long Way . . . Methods and Methodologies for Community-Engaged Scholarship

Often-cited limitations in scholarship related to community engagement and outreach include weak theoretical foundations, limited generalizability of findings due to small sample sizes, inadequate number of longitudinal studies to provide a full assessment of education and community change and outcomes over periods of time, heavy reliance on unsubstantiated self-reports, and limited ability to aggregate data due to wide variations in community engagement purposes and practices across programs and sites (*Furco & Holland, 2013*). Although researchers continue to focus on these issues, more recent submissions to *Journal of Higher Education Outreach and Engagement (JHEOE)* have shown a greater number and wider variety of methods, reflecting more mature inquiry method selection and application in the field. In essence, we've come a long way from the advocacy, anecdotal, applied, best practices research and reporting that dominated much of the earlier published work.

This sophistication in research design and methods that enables deeper and more rigorous exploration of outstanding questions in community engagement reflects the evolution of methodologies across the conduct of scholarly thought and practice as research and evaluation. Sage, publisher of research methods journal content and resources, frequently asks researchers, "What are the most exciting trends in the fields of research methods, statistics and evaluation?" Their recent poll identified seven trends in research methods: (1) digital qualitative methods, (2) online interviews and focus groups, (3) applied anthropology methods, qualitative/ethnography, (4) complexity theory, (5) the intersections of qualitative research practice with the sciences, (6) design-based research, and (7) critical race theory approaches to quantitative methods. (For links to specific articles on each of these methodological areas, see *Sage Publishing, 2016.*)

We are excited that the community-engaged scholarship methodologies in recent *JHEOE* submissions reflect some of these trends. This issue features works that, in addition to being sound, peer-reviewed articles, highlight their methodologies. Appropriately for our maturing field, these methodologies facilitated the cocre-

ation of knowledge though democratic practices with and across their full range of participants: institutions, community members, faculty members, students, and administrators. The authors used approaches that also were designed to gain a deeper understanding of the research questions in ways that transcend the bare numeric values obtained through "often meaningless 'pre-post' surveys" *(Battistoni, 2014, p. 55)*. The articles in this issue include an addendum in which the authors briefly speak to their research design and method selection and reflect on their choice and experience. As an editor, I was particularly impressed with two aspects of the research processes detailed across this set of articles: The authoring teams have thoroughly described their data analysis processes, and they have addressed institutional research board (IRB) approvals involving community and other organizational partners.

The authoring team of Bowen, Gordon, and Chojnacki, from Barry University, drew on an aptly contemporary inquiry methodology for an equally up-to-date topic. Using Gee's (*2014*) critical discourse analysis, these authors examined how students employed social media for engagement. Use of social media is ubiquitous among students and much of the population at large, but as a scholarly topic the medium remains underrepresented in the literature. Bowen et al. followed students as they experienced the practical ins and outs of using social media for social advocacy.

Matthew Johnson, from Central Michigan University, employed a grounded theory methodology to better understand college students' civic identity development. Grounded theory has been in use for many years; however, Johnson specifically used Charmaz's *(2014)* approach, which emphasizes the cocreation of theory with subjects, an approach consistent with the principles of community-engaged scholarship. Johnson's article is noteworthy for its thorough description of his data analysis process, which involved his subjects in many ways, particularly through two levels of member-checking.

Like Johnson, Dennis McCunney in his dissertation overview reports on his study of civic identity development. Rather than applying a grounded theory perspective, however, he used an ethnographic case study, an approach that provided "an opportunity to focus on the nuances in the life of an institutional subculture" *(p. 65)*. This methodology was particularly appropriate for the case setting: a Jesuit university with a pervasive "magis" culture.

To counter the lack of longitudinal studies in community-engaged scholarship, Ufnar, Bolger, and Shepherd from Vanderbilt

University report on a retrospective investigation of 10 years of a 17-year Scientist in the Classroom Partnership (SCP) program. Their findings, based on qualitative and quantitative data, offer assessment of the SCP program while examining what the science fellows, teachers, and students brought to and took from the program. These findings will be particularly helpful to others looking to sustain their STEM university–K-12 partnerships.

Two other articles also take a long-term perspective. Historical inquiry is a methodology seldom seen in our field. Jan Hunzicker, in her reflective essay, not only reports on a historical narrative project of a two-decade professional development school partnership with 10 area schools, but describes how it was done as a collaborative writing project. Having been involved in many collaborative writing projects, but none close to the scale and scope of this Kemper History project, I was riveted. The methodology behind orchestrating and accomplishing this project is, in itself, a good read!

In contrast to historical analysis, community-based participatory research (CBPR) is becoming a mainstay in our field; however, this methodology is not necessarily conducted with authentic community engagement. In their project with promise, the authoring team from the University of South Alabama provides a retrospective of a long-term (2004–present) community-based participatory research venture to address health disparities. Although the article focuses attention on the consolidation of academic gains, the researchers' overall effort is an exemplar of community-engaged scholarship and the resulting institutionalization of CBPR. I especially appreciated their unvarnished discussion of the challenges encountered in this methodology and the helpful responses they devised. How they handled the IRB approval in their CBPR and how they achieved their extensive dissemination outcomes merit particular attention.

Investigating the complexities of institutional change efforts that involve university structures, process, and culture takes on new dimensions of challenge when performed as a multidepartment, cross-institutional collaborative initiative and study. A western Michigan higher education multidisciplinary research team reports on just such an endeavor in "Shifting Engagement Efforts Through Disciplinary Departments: A Mistake or a Starting Point?" In this project, a systemic action research approach (*Burns, 2014*) was integral to the Grand Rapids Engaged Department Initiative's evolution, as it yielded real-time findings to the collaborative ongoing interventions. Further, the research process was itself an interven-

tion, as systemic action research practices "not only document, but also impact the processes, programs, activities, and systems of support engaged throughout each stage of the collaboration" *(p. 142)*.

Finally, Jones and Lee approach our field with a truly sweeping scope, presenting a trend analysis in "A Decade of Community Engagement Literature: Exploring Past Trends and Future Implications." Using descriptive statistical methods, these authors analyze 10 years of publications appearing in *JHEOE*, examining such dimensions as subject category and methodological approach. This article also serves to test the chosen analytical framework as a basis for exploring similar trends in a wider range of scholarly journals.

I encourage you to carefully read the articles in this issue for both the rigor of their methodological approaches and the freshness of the authors' experiences. These works add to a growing body of evidence that scholars, academy- and community-based, are no longer limited to methods traditionally associated with community-engaged explorations. Our field has come a long way, but further education, training, and advocacy are still needed so community-engaged scholars can better utilize updated and intriguing methods of inquiry for scholarly endeavors.

With best regards,
Lorilee R. Sandmann
Coeditor

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Advocacy Through Social Media: Exploring Student Engagement in Addressing Social Issues

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Abstract

Social media have become ubiquitous and are seen as beneficial to society. Although the use of social media for educational purposes has been the subject of recent research, not much is known about their role in higher education civic engagement. Employing critical discourse analysis, this study explored the function of social media as a tool to promote the civic engagement of students through advocacy focused on identified social issues. Findings of this qualitative research are discussed as themes pertaining to the challenges of advocacy, the relative importance of advocacy processes, and the function of social media infrastructure. The authors also discuss the implications for pedagogy and for research in the area of technology-mediated, issue-focused advocacy by university students.

Keywords: advocacy, social media, civic engagement, Facebook, Twitter

Introduction

Recent years have witnessed phenomenal advances in Internet-based technologies and their widespread use in all sectors of society. Increasingly, technology usage has become standard practice in people's daily lives. There is also concomitant interest in applying these information and communication technologies to teaching and learning in higher education. In this regard, university professors have been turning to social media as communication avenues for active learning, or the immediate application of knowledge through engagement (*Kassens-Noor, 2012; Prescott, 2014*).

In an era when Facebook, Twitter, and YouTube have a pervasive presence, it is not surprising that university faculty regard social media as a potentially powerful pedagogical tool. Twitter, for example, has been singled out for holding "potential as a powerful learning tool that can readily transmit knowledge, inform learners, and extend beyond individuals to their social networks" (*Kassens-Noor, 2012, p. 12*).

Whereas previous studies have focused on the promise that social media hold as a pedagogical tool (*e.g., Junco, Heiberger, & Loken, 2011; Kassens-Noor, 2012; Prescott, 2014*), to date there has not been any published study of the use of social media in higher education to foster student engagement relative to social issues. This study therefore addressed the question of student engagement with social issues through social media. In particular, the study explored the function of social media as a means of social-issue advocacy in the context of a university course.

Social Media and Their Use

Social media consist of websites and applications that enable users to create and share content and to participate in social networking. In addition to Facebook and Twitter, popular social media sites include Instagram, Tumblr, LinkedIn, and Myspace. Facebook is the largest online social network, with the number of daily active users reaching 1.28 billion in the first quarter of 2017 (*Facebook, 2017, Stats section*). Posts on Facebook can be very long (up to about 63,000 characters). Facebook users can post messages, photos, and videos; add hyperlinks (highlighting words connected to other sites or to additional, accessible information); reply to posts; and "like" content. The "Like" button functions as a way to "[g]ive feedback and connect with things you care about" *(Facebook Help Center, n.d.)*.

With regard to Twitter, a standard message, or tweet, is extremely short; it is limited to 140 characters. Twitter users can retweet or reply to direct messages, and they can follow and be followed by other users. To offset the established 140-character limit, Twitter users may add links within tweets, which provide quick access to further information. They may also use hashtags to add context and metadata to tweets. According to Guo and Saxton (*2014*), hashtags are particularly important to advocacy groups for aggregating knowledge, rapidly disseminating information, and mobilizing people during advocacy campaigns. Additionally, Gordon (*2014*) has noted that such technological features heighten social media's potential to facilitate dialogue and create communities online.

Social media offer considerable benefits to individuals, groups, and organizations. An obvious benefit is social media's instrumentality in connecting diverse individuals and groups, even in far-flung regions, and making them feel connected to a common experience. Social media have been credited with spurring the Arab Spring revolution in the Middle East and Northern Africa (*Harlow*

& Guo, 2014; Obar, Zube, & Lampe, 2012) as well as the Occupy Wall Street protests in New York City (*Penney & Dadas, 2014; Sorkin, 2012*). More recently, a social media "resistance" movement against the new Trump administration in Washington has taken shape (*Lever, 2017*).

Social Media's Relationship to Engagement

Today's college students are among "digital natives" (*Prensky, 2001, p. 1*) who have always known and been immersed in technology. Recent research has indicated a generally positive impact of students' use of social media for educational purposes (*e.g., Chen, Lambert, & Guidry, 2010; Junco et al., 2011; Nelson Laird & Kuh, 2005*). Junco et al. (*2011*), for instance, found that college students used Twitter in educationally relevant and productive ways, demonstrating a positive relationship between utilization of that platform and student engagement. Nelson Laird and Kuh's (*2005*) study drew on data from the National Survey of Student Engagement to investigate the relationship between student uses of information technology and other forms of student engagement. The results of that study indicated a strong, positive relationship between the use of information technology for educational purposes and other effective educational practices such as active and collaborative learning.

However, we are mindful that social media can foster superficiality as users engage in multitasking and consequently do not pay sufficient attention to the thoroughness or completeness of specific tasks. Indeed, constant connection to digital devices "promotes digital distraction not just at the expense of self-reflection, but also to the detriment of engagement beyond the self" (*Kelly, 2015, p. 114*). Ironically, the increase in digital connectivity can also cause isolation because personal interactions and relationships are often sacrificed for individualism. On the positive side, "networked individualism," as Rainie and Wellman (*2012*) call it, does allow people to connect, communicate, and exchange information efficiently with numerous, diverse others.

A well-known concern among university faculty members is the academic engagement of students. Course instructors are fundamentally concerned about student engagement in relation to the subject matter and participation in class. Many adopt "time-on-task" as a proxy measure for student engagement. *Time-on-task* refers to the amount of time students spend on academic tasks (*Prater, 1992*). As Axelson and Flick (*2010*) have explained, student engagement has come to mean "how *involved* or *interested* students

appear to be in their learning and how *connected* they are to their classes, their institutions, and each other" (*p. 38, emphasis in original*).

In addition to academic engagement as explained above, the civic engagement of students is a priority in American higher education. Civic engagement generally involves the movement of individuals and organizations "away from disinterest, distraction, ignorance, and apathy and towards education, understanding, motivation, and action" (*Obar et al., 2012, p. 2*). Civic engagement as an institutional priority is evidenced by the participation of more than 1,100 colleges and universities in Campus Compact, the national organization dedicated to civic engagement in higher education (*Campus Compact, 2017*). As direct participants in civic engagement, students (and also faculty and staff) bring their knowledge, skills, and resources to bear on issues affecting the community.

A number of researchers have suggested that social media can be leveraged to foster civic engagement and meet social change goals (*Aaker & Smith, 2010; LaRiviere, Snider, Stromberg, & O'Meara, 2012; Obar et al., 2012*). The benefits of social media for civic engagement include the ability of individuals to interact and collaborate in real time (*Guo & Saxton, 2014*) and to build a necessary sense of community that can facilitate collective action.

Some scholars have questioned whether online interactions can be as effective as face-to-face relationships in civic engagement, especially in building the levels of trust necessary for sustained collective action (*Harlow & Guo, 2014; Van Laer & Van Aelst, 2010*). For instance, Shulman (*2009*) has long raised doubts about the efficaciousness of public participation though online means. In the same vein, Soon and Kluver (*2014*) mentioned "doubts pertaining to the relationship between communication on the web and its outcome in terms of engendering participation in collective campaigns" (*p. 502*).

Advocacy as a Form of Engagement

Advocacy is a distinct form of civic engagement and is often seen as a precursor or complement to direct action or civic activism. Groups and organizations use advocacy to address such issues as civil rights, education, health care, the environment, and the criminal justice system. They champion causes and seek to influence decisions within political, economic, and social systems. Advocacy groups usually raise concerns about policies and practices that they consider unjust or about institutions that are unresponsive to people's needs (*Berke, Boyd-Soisson, Voorhees, & Reininga, 2010*).

According to Bowen (*2014*), "Effective advocacy increases the power of people to make institutions more responsive to human needs, and it influences public policy and decisions regarding the allocation of resources" (*p. 53*).

Guo and Saxton (*2014*) have identified media advocacy as a specific tactic whose ultimate goal is to mobilize supporters. Among social media platforms, Facebook and Twitter seem well suited to advocacy because of their decentralized structure and interactivity. Because it encourages brevity, Twitter is considered most amenable to ongoing, public dialogue (*Junco et al., 2011*).

Obar et al. (*2012*) reported that U.S. advocacy groups believed that social media could facilitate civic engagement and collective action by strengthening outreach efforts, enabling "engaging feedback loops" (*p. 15*), increasing speed of communication, and being cost-effective. In their study of social media use in the nonprofit sector, Lovejoy and Saxton (*2012, p. 342*) identified "action," encompassing participation in advocacy campaigns, as a communicative function of social media. Generally, the Internet has made it much easier to conduct advocacy—to arrange campaigns, spread the word, and get signatures on petitions (*Christensen, 2011*)—even if, as Twenge (*2013*) found, it does not necessarily lead to other forms of civic engagement such as writing to public officials.

Nevertheless, proponents of social media as a tool for advocacy or social action should be cognizant of the usually tenuous existence of online movements. For example, although the open-door nature and horizontal governance of online movements may make joining simple, it also allows joiners to leave within mere seconds. As LaRiviere et al. (*2012*) have noted, students may join online simply to say they are part of a movement when they really are not involved in it at all. Lack of genuine involvement would perhaps give credence to the old claim that social media have encouraged "slacktivism," or "feel-good online activism that has zero political or social impact" (*Morozov, 2009, para. 1*).

The purpose of this article is to report our research on students' use of social media for advocacy as part of a university course. Our research question was straightforward: Does students' use of social media for advocacy facilitate engagement with a social issue?

Methods

The study reported herein was a qualitative inquiry into the use of social media for advocacy as part of a university undergraduate course. We reasoned that a qualitative approach would allow us

to gain insights into our students' interactions with other users of Web 2.0 technologies. Although we would record quantitative data, such as the number of messages posted on social media, we were more interested in textual data (actual posts and tweets) that would provide evidence of meaningful engagement.

We defined engagement as students' purposeful and sustained use of social media as an instrument for advocacy pertaining to an identified social issue (i.e., a problem or conflict that concerns a considerable number of people in the society). Engagement, then, would reflect students' time and effort invested in relevant communication or interactions with other social media users regarding a specific social issue. We would expect students to sustain the communication or interactions over the course of a semester, or approximately 15 weeks.

The number of original and follow-up messages (posts, tweets, etc.) would be taken into consideration, as would the number of likes on Facebook and followers on Twitter. However, those numbers would not be the determinant of engagement. A relatively large number of likes, for example, would indicate that many potential supporters of the advocacy effort had received a pertinent message from the student as an advocate.

Research Context and Participants

We conducted our study at a private university in the southeastern United States, where active learning pedagogies are emphasized. An assigned advocacy project was a component of two sections of Introduction to Communication, a required course for communication majors. The authors of the course textbook refer to "public advocacy" and explain, "Through public advocacy, we collaborate with others in an open conversation wherein we reflect on our relationships with one another and work toward a common good" (*Warren & Fassett, 2015, p. 9*).

A major requirement of the course was students' use of social media for advocacy-related communication in response to current social issues. As part of the semester-long project, students were instructed specifically to (1) submit an advocacy project proposal; (2) create, promote, and maintain a social media/networking site aimed at generating substantive content; and (3) write a paper reflecting on their experience in terms of both process and product. The students had a choice of social issues to address and social media technology to employ. Giving them those choices, we hoped,

would give them a sense of ownership of the advocacy project and impetus for real engagement.

All students enrolled in both sections of Introduction to Communication were invited to take part as respondents in the research, which was approved by the university's Institutional Review Board. Before data collection began, each student willing to participate provided informed consent as part of an administrative process that excluded the course instructors. The coordinator of the administrative process informed students that their participation in the research was not a requirement of the course. They could decline to participate at any time, and this would not affect their course grades in any way. A total of 20 students eventually became respondents in the study.

Data Collection

We collected two sets of data. The first was data extracted from content that students created on social media pages—that is, the messages posted on social media and the responses received. After noting the types of social media platforms utilized, we examined the actual use of those platforms as reflected in the content created or generated by our students. Further, as part of the data-collection process, we copied Twitter feeds and Facebook posts in full and within a trail of discourse to maintain context.

The second set of data was derived from students' reflection papers. As explained below, we reviewed the reflection papers to extract pertinent data.

Our study employed methodological triangulation, defined as "the comparison of two or more forms of evidence with respect to an object of research interest" (*Lindlof & Taylor, 2002, p. 240*). Content of social media pages and reflective comments were the two forms of evidence sought in our study.

Data Analysis

We began data analysis after all students had completed the course and had received their final grades. Therefore, the analysis was unobtrusive and was not affected by the potential bias of the student–instructor power relationship.

The principles and procedure of critical discourse analysis (*Gee, 2014*) informed our approach to analyzing data from social media sites. Taking a "critical" approach indicates our interest in examining the social issues raised as part of the discourse. The units of analysis were the content of the social media pages—the text and

related images. We used a copy-and-paste process to produce a "broad" transcript of the messages (*Gee, 2014, p. 136*) and also saved screen shots in a folder for analysis. We labeled segments of text and connected similarly labeled segments based on their situated meanings—"the highly specific meanings that words and phrases take on in actual contexts of use" (*Gee, 2014, p. 81*). The structures within the discourse (e.g., grammar) were excluded from the analysis because they would not serve the purposes of our study.

To prepare for the analysis of data derived from reflection papers, we organized and reduced the data through the coding process. Two of us read the reflection papers several times and independently coded them. First, we performed open coding, examining and categorizing the qualitative data. We included some "in vivo" codes (*Strauss & Corbin, 2008, p. 69*) by labeling chunks of data with highly descriptive words extracted from students' papers. Next, again independently, we did axial coding, making connections among the initial codes and relating them to broader categories of concepts. We then subsumed several concepts under five core concepts to produce themes grounded in the textual data. The third researcher reviewed the coding scheme and the categorization, checking interpretations against the raw data. After discussing discrepancies and resolving minor disagreements concerning the categorization and the themes, we finalized the analysis and the findings.

The findings are presented below as themes, with each theme supported by low-inference descriptors. As Seale (*1999*) has explained, low-inference descriptors include "verbatim accounts of what people say, for example, rather than researchers' reconstructions of the general sense of what a person said, which would allow researchers' personal perspectives to influence the reporting" *(p. 148)*.

Coupled with triangulation, the use of in vivo codes and low-inference descriptors supported our efforts to establish the trustworthiness of the research findings. To enhance trustworthiness, we created an audit trail (*Bowen, 2009*) consisting of the principal elements of the research process.

Findings

The findings of this research are based on the two sets of data produced by students—data from the social media sites (n = 19) and from students' reflection papers (n = 20). We present each set of findings in turn.

Social Media Use

The 20 students who participated in the study used four social media platforms to create and disseminate messages. One student used two platforms; most students (16, or 80%) used Facebook (Table 1).

Table 1. Students' Use of Social Media for Advocacy

Social Media Platform	Number of Students	Percentage of Students
Facebook <https://www.facebook.com>	16	80
Twitter <https://twitter.com>	4	20
Tumblr <https://tumblr.com>	1	5
Blogger <www.blogspot.com>	1	5

Regarding the use of Facebook, students created pages calling attention to such social issues as domestic violence, human trafficking, child labor in sweatshops, obesity, and HIV/AIDS (Table 2). As many as six students (working in three teams) created Facebook pages to address the issue of domestic violence. The students sought to create awareness of the magnitude of the issue; they also emphasized that victims should not blame themselves and should seek help. On one of the Facebook pages, a picture illustrating the effects of domestic violence got 293 views, a relatively high number.

The Facebook page advocating an end to human trafficking had links to two YouTube videos featuring celebrities involved in the cause. That page had 95 likes. The Facebook page addressing HIV/AIDS included a link to the "HIV Testing" page at a charitable organization's website. At the same time, two students used that social media platform to advocate positive youth development, including activities to build life skills and raise self-esteem.

Table 2. Examples of Students' Use of Facebook for Advocacy

Facebook Pages (with Topics Addressed)	Posts	Video Units	Text Units	Picture-Only Units	Links to Other Sites/ Content	Likes	Comments
Hope Faith Cure: HIV and AIDS (HIV/AIDS)	45	3	42	0	11	27	0
Be the Change (Youth Development)	100	5	95	0	5	27	4
Support Against DV (Domestic Violence)	4	0	3	1	0	16	0
PeaceLoveUnity (Domestic Violence)	6	1	4	1	0	32	2
STDs: Protect Yourself, Get Tested (Sexually Transmitted Diseases)	29	8	21	0	9	34	0
The Naked Truth: Stay Classy, Not Trashy (Body Image/Self Esteem)	24	2	14	8	0	58	17
Lupus Advocacy Project (Lupus, the Autoimmune Disease)	31	1	10	20	6	49	1
Choose Your Life (Depression)	21	3	11	7	0	25	3
The Fight Against Childhood Obesity (Obesity)	43	11	20	17	0	24	3

The creators of a Twitter page titled "Be the Change" provided this purpose statement: "We give young people the tools to identify, learn about, and take action on the things that affect their lives as well as the lives of their peers." The "Be the Change" team followed 133 other Twitter users and had 64 followers (Table 3).

Table 3. Examples of Students' Use of Twitter for Advocacy

Twitter Pages (with Topics Addressed)	Tweets	Retweets*	Tweets with Hashtags**	Tweets with Hyperlinks**	Following	Followers
Hope Faith Cure: HIV and AIDS (HIV/AIDS)	80	61	44	91	28	16
Be the Change (Youth Development)	161	88	49	54	133	64

** A retweet is a tweet that has been shared further with all followers of the Twitter user. These retweets were made by the creators of the page—not by those following the page.*

*** Tweets with hashtags (using the # symbol to mark keywords or topics in a tweet to make it easily identifiable for search purposes) and hyperlinks (references to data that the reader may follow directly by clicking, tapping, or hovering) are not mutually exclusive.*

A student team whose Twitter page was designed to raise awareness about the causes and consequences of HIV/AIDS, and to urge preventive measures, hashtagged relevant web pages, testing sites, and care services. Also included in that team's tweets were links to a 10-minute excerpt from the 25-minute film titled "Hope in the Time of AIDS"; YouTube interviews; and a Huffington Post blog post, "Prevention and Protection: The True Value of Condoms." The students advocated HIV/AIDS prevention through the donation of condoms (see message in Table 4).

Table 4. Examples of Posts and Tweets

Social Media Site	Topic	Message
Facebook	Domestic Violence	"Domestic violence causes far more pain than the visible marks of bruises and scars. It is devastating to be abused by someone that you love and think loves you in return. It is estimated that approximately 3 million incidents of domestic violence are reported each year in the United States."—[U.S. Senator] Dianne Feinstein
		Help End Domestic Abuse
		(Below a picture of an obviously bruised and battered woman) Abust Hurts. Recognize, Respond, Refer
	HIV/AIDS	Taking an HIV test is the only way to find out if you have HIV. You should always take a test if you have put yourself at risk. Early HIV diagnosis is important so that treatment is effective, you stay well and you avoid passing HIV on to others.

Table 4. Examples of Posts and Tweets

Social Media Site	Topic	Message
Twitter	HIV/AIDS	7000 people per day are infected with HIV. Join Durex in working towards an HIV-free generation. Share to donate a condom #1share1condom
		Visit http://www.aids.gov for information on the spread of HIV/AIDS, how to get tested, and various federal programs and treatment options.
		You can be tested by 3 quick and easy ways: mouth swab, urine sample or blood sample #GetTested
	Youth Development	(Accompanied by an illustration of youth activism) Encouraging a new generation of change
		Tweeting about issues is a way to start a movement towards a change.
		(Retweet from In South Florida: Digital Marketing Services) You need to be aware of what others are doing, applaud their efforts, acknowledge their successes, and encourage them in their pursuits.
Blogger	Obesity	A lot of people today suffer from obesity and they're … bullied and pushed down because of it. I've gone through something similar. In my case, I have confidence in myself and have been able to not let people's words or actions really change the way I view myself: beautiful and independent, despite my overweight. Because I have a confident voice, and I have a confident mind and the ability to say what I think … I believe that I can make a difference and change some people's lives. Obesity isn't just about looking good, it's also about one's health and wellbeing.

The student who used Tumblr posted multimedia content to a short-form blog and sought followers. Her stated goal was to "shed light on black market cosmetic surgery" and to promote healthy lifestyles among her followers (totaling 52 on the advocacy project's due date).

The student who used Blogger *(blogspot.com)* explained her motivation and intent (see message in Table 4). Several of her blog posts contained tips for people struggling with obesity; some were announcements of community events.

In terms of their "situated meanings" (*Gee, 2014, p. 81*), segments of text from Twitter feeds on domestic violence and obesity

emphasized hurt, pain, and suffering. Facebook posts touched on the causes and consequences of HIV/AIDS, depression, and other identified issues.

Reflection Papers

Students reflected on their advocacy project by writing about what they did and what they perceived as the outcomes. They also shared their views on the practicality of social media–based advocacy as an approach to addressing social issues.

Our analysis of students' reflection papers yielded three themes: (1) Social media-based advocacy is surprisingly challenging; (2) advocacy processes are perhaps as important as advocacy outcomes; and (3) social media infrastructure both hinders and aids advocacy effectiveness. We present each of these themes below, with a sampling of statements from students' reflection papers.

Theme 1: Social media-based advocacy is surprisingly challenging. The majority of students incorporated a formal or informal definition of *public advocacy* in their papers. They understood that advocacy is the active support of a cause, idea, proposal, or policy. Despite expressing a fairly good understanding of what it entails, students said they were surprised that advocacy was such a challenge. A considerable number of them said they thought advocacy would be easy, especially because of the accessibility of social media sites. However, students found it "pretty challenging," "much harder than it looks," and "definitely harder than I imagined."

One of the students reported that she tried to use the advocacy process to gain support for establishing a sports camp as a safe space for at-risk children in the local community. However, she soon realized it was a goal that was too challenging to accomplish:

> When I first began the project I thought that a camp would work but there are many difficulties with that. I decided to change my primary goal to raising awareness about the needs of at risk children and the benefits of becoming a mentor to the children.

In a similar vein, one of her classmates wrote:

> We wanted to create a pen-pal program . . . that would help students on campus engage in being a mentor for a child via mail. I later realized that this would be too hard to do, so I stepped back from trying to create such

> [an] extensive process and focused on trying to deliver a message through . . . social media.

In their reflection papers, students mentioned that they experienced difficulties in stimulating dialogue and other forms of participation on their Facebook pages. Some said it was difficult to get people to leave comments or even simply to like the Facebook page. As one said, "I faced challenges with finding friends and getting people to interact and spread the word about my purpose."

Some students attributed the lack of participation by social media users largely to "the sensitive nature" of some issues. For example, students whose advocacy project addressed the issue of domestic violence or HIV/AIDS reported their failure to attract enough attention or response from the public. As one student pointed out, "This [HIV/AIDS] can be a very touchy matter for most people and I'm almost positive they won't feel any better opening up to me about such a sensitive topic."

The limitation of time posed a considerable challenge as well. Students shared that the advocacy assignment was more demanding than they expected and they did not have enough time to devote to it. They seemed to understand that the advocacy project should not necessarily end when they completed the course. And although they found their cause worthy, several students mentioned time constraints in connection with this.

Whereas students expressed surprise at how challenging social media–based advocacy turned out to be, some of them acknowledged that challenge was both inevitable and worthwhile. Those students expressed a desire to continue with their advocacy project after the semester ended.

Theme 2: Advocacy processes are perhaps as important as advocacy outcomes. Students reported that they eventually learned the importance of paying attention to the process of advocacy instead of keeping most of their attention on numerical outcomes such as the number of likes on Facebook or followers on Twitter. They referred to the process as involving effective argumentation and tailoring messages to the intended audience, as indicated in the following representative comments:

> In order to get through to people and make them actually listen to our ideas and thoughts, we must listen to the people ourselves. . . . We realized it was important to keep our audience intrigued and wanting to keep looking out for our [Facebook] page. . . . Being that

> [domestic violence] is such a touchy subject, we didn't want to say the wrong things to turn off our audience. We tried our best to respond as carefully as we could.
>
> We needed to get people in a thought process that makes them want to act. Maybe liking a page might help. We have tried posting pictures, videos, and even tried to interact with people with questions. We even tried to keep the posts small in order for people to read all our posts with ease.
>
> It takes time to build relationships with our audience and to keep our fan base. . . . Our group had to find a way to keep people's attention and to gain their trust.

Admitting that she paid scant attention to process, one student wrote, "I could have done more to attract people to my page. My page content could have been more relatable to a wider audience."

For some students, the most noteworthy aspect was the opportunity to explore a social issue while simultaneously connecting with social media users. Those students "felt like an advocate," experienced "a feeling of satisfaction," and welcomed the "opportunity for finding our own voice." Here is an illustrative excerpt from a reflection paper:

> I learned something different every time I searched for information to post. I felt like this project gave me a chance to be a teacher, student, advocate and supporter. I felt like a teacher because I posted to refresh the memories and [increase] the general knowledge about this topic, but at the same time I [became] educated with deeper information that wasn't taught in a high school health class. I felt like a student because I learned just as my peers did from the information I found and posted. I felt like an advocate because I made a social networking page to support a prominent cause in our society. And last I felt like a supporter because I do support the fight against HIV/AIDS.

Students came to understand the importance of carefully managing their advocacy-related social media presence and the content of the pages they created. Many wished they had done more, not only to attract users to the sites but also to hold users' attention and to

prompt meaningful interactions such as posting questions, sharing facts and figures, and adding comments.

Theme 3: Social media infrastructure both hinders and aids advocacy effectiveness. In their reflection papers, students commented on social media infrastructure and how it functioned in relation to their advocacy efforts. They drew attention to specific elements of the social media platforms that, in their view, either hindered or aided effective advocacy. One student wrote:

> Facebook is an open format [site that allows users] to raise questions and concerns about a particular cause and gives the public a chance to contribute by commenting on statuses and pictures. . . . After you have reached a threshold of over thirty likes, you are able to receive insights on your page that breaks down the demographics that view your page such as gender, age, and geographic locations.

The public participation generated on Facebook was mainly the use of the "Like" feature. Although it offered ease of use, some students found that feature to be far less effective than they desired:

> I didn't get enough likes on the page. . . . I've also discovered that I won't know for sure if I'm reaching out [effectively] to others or if anyone acts on the tips posted on the page. . . . I can never be one hundred percent sure that the rates [of HIV/AIDS] are decreasing because of my page or that parents came across my page and decided that they must go home and talk to their children about sex.

> We wish there were more comments on our page and more people would actually share information. That would be more meaningful than people just liking our page.

> Twitter has always seemed like the way to go. I have seen some advocacy pages on Twitter and they succeed . . . [because they] have hashtags. People who used Twitter have more followers than we [Facebook users] have likes. . . . In the end, our advocacy project was a bust. I think the limitations of Facebook made it a bust.

Meanwhile, one of the students who used Facebook to advocate on behalf of domestic violence victims argued, "If we were to

use a medium like Twitter, we would be limited to [140] characters a tweet and couldn't get our message out that well." Here is part of that message (composed of 296 characters) shared on Facebook:

> Children who grow up witnessing domestic violence are among those seriously affected by it. Frequent exposure to violence in the home not only predisposes children to numerous social and physical problems, but also teaches them that violence is a normal way of life, increasing their risk of becoming society's next generation of victims and abusers.

Some students felt that the public nature of social media inhibited responses to their advocacy efforts by individuals who could have provided valuable feedback and insights. They concluded that people who were affected by certain sensitive issues wanted to maintain anonymity or privacy regarding those issues and to protect themselves. In relation to domestic violence, for instance, one student wrote,

> Safety is one of the important things for victims. They do not spend time chatting on the different social media networks because they need to protect themselves from their abuser.

Other students stressed the benefits of social media in spreading positive messages and seeking support for certain causes. Two students noted,

> Facebook has open access and allows us to reach people all over the world. We can see how many people clicked on some of what we posted.

> We didn't get enough likes on the page, but who is to say that we did not reach hundreds of individuals with our positive messages?

The student who turned to Tumblr as an advocacy medium felt that the site offered enough freshness and remained popular among young adults. Although she was a newcomer to Tumblr, the student was aware of the seven post types available: text, photo, quote, link, chat, audio, and video. That student employed most of the post types to draw attention to the dangers of procedures

performed by unqualified and unlicensed surgeons. Although she did not achieve her goal of attracting 100 followers, the student expressed satisfaction with the responses because they indicated public interest in the topic.

The student who used Blogger *(blogspot.com)* considered the site "amazing" because it allowed multiuser blogs with time-stamped entries. It also permitted the user to choose from various templates and then customize them. One of its limitations, as the student found out, was that only 100 blogs are allowed for each account.

In sum, themes pertaining to the challenges of advocacy, the relative importance of advocacy processes, and the function of social media infrastructure emerged from the qualitative data. In what follows, we discuss these findings, the study's limitations, and the implications of the findings for teaching and research.

Discussion

Social Media Use

Students used Facebook, Twitter, Tumblr, and Blogger for their advocacy project. Domestic violence was the social issue presented by most students; however, the two Facebook pages on this topic—"Support Against DV" and "PeaceLoveUnity"—collectively had fewer posts than individual Facebook pages on other topics. Neither of the two pages had links to other, relevant sites. The picture of an obviously bruised and battered woman on one of the Facebook pages, together with the emotionally charged "Abuse Hurts," could have been more effective if the students had added hyperlinks.

The relatively large number of likes generated by the body image/self-esteem page titled "The Naked Truth: Stay Classy, Not Trashy" suggests that many potential supporters of this advocacy effort had at least received the message. Regarding two other social media pages, there was greater engagement by the youth development advocacy team (urging "Be the Change") than by the students whose focus issue was HIV/AIDS. It should be noted that the youth development team made twice as many tweets as the students addressing HIV/AIDS.

In general, an increased number of links from Facebook to other sites with complementary content could have been helpful in advancing our students' advocacy efforts. Similarly, more hashtags with tweets could have been effective. Prior research found that hashtags support the aggregating of knowledge, the speedy dissem-

inating of information, and the mobilizing of supporters during advocacy campaigns (*Guo & Saxton, 2014*).

Authentic advocacy entails more than raising awareness or increasing the visibility of an issue; it also involves mobilizing supporters and championing responses within the political, economic, or social system (*Bowen, 2014; Guo & Saxton, 2014*). It seems that the majority of students stopped short of authentic advocacy by using social media primarily as an avenue of expression and by concentrating on building awareness about issues. There was little indication of any genuine attempt to create a community online (*see Gordon, 2014*)—despite what is understood to be the generally tenuous ties among social media users—and to press for support from decision makers in the political or social sphere.

Reflection Papers

We inferred from our reading of the reflection papers that students mostly chose social issues of personal concern to them (e.g., obesity and body image) rather than choosing based on the prevalence of those issues in today's society. Although their reflection papers conveyed a fairly good understanding of the concept of (public) advocacy, most students seemed to have only a rudimentary grasp of advocacy procedures generally and social media–based advocacy specifically. By and large, students directed their efforts at raising awareness about issues, and it appears that they expected responses mainly from people directly affected by those issues (e.g., victims of domestic violence).

Understandably, the single-semester time frame did not allow enough time for students to ascertain whether their advocacy efforts were truly successful. Even those students who may have mobilized some supporters would most likely not know whether that had achieved any system-level influence on policy- or practice-related decision making.

For many students, the key indicator of success in using social media for advocacy was the number of likes on their Facebook pages, with a large number of likes suggesting a greater degree of success. That is understandable because the number of likes is one of the most accessible pieces of data, providing at least a quantitative indicator of positive feedback on Facebook posts. Still, students were not expected to see "likes" as the totality, or even strong evidence, of engagement on the part of any social media user. Liking a page or a post is, after all, similar to joining an online movement without becoming really involved (*see LaRiviere et al., 2012*).

Some students did insist, as they should, that the number of likes did not say much in terms of advocacy effectiveness. Take, for example, the student who created the "STDs: Protect Yourself, Get Tested" Facebook page. The student posted 29 messages (eight of them with video clips), garnering 34 likes. As the student stressed in her reflection paper, she did not know whether anyone acted on any of the promptings contained in those messages.

The first emergent theme captured the surprising challenges of social media-based advocacy. Some of the challenges faced by students were perhaps rooted in the nature and extent of the goals they had set for themselves and their project. A few goals were simply unrealistic, if only because of the short time frame (one semester). Such was the goal of establishing a sports camp as a safe space for at-risk children in the local community. This theme also conveyed that active learning enables students to differentiate between imagined and informed realities. Because Facebook and Twitter are popular, many students had imagined that using either platform for advocacy purposes would be easy.

Only a few students—those who felt passionate about the cause they embraced—expressed a desire to continue with their advocacy project after they completed their course assignment. Those students did not view engagement as residing within the confines of the communication course. They had apparently developed a mind-set and the willingness to continue pursuing their advocacy goals as a longer term endeavor.

Calling attention to the importance of advocacy processes vis-à-vis advocacy outcomes, the second theme shows the benefit of hindsight in the context of reflection. Students made it clear that they came to understand the importance of maintaining and managing their advocacy-related social media pages only as they reflected on their experiences. As they reflected, they were able to make informed valuations of the actual investments—in time, collaboration, and material resources—necessary for advocacy goals to be achieved.

Although there was perhaps too much emphasis on mere awareness raising, some students did use social media for research that could build knowledge about specific social issues, including their root causes. Understanding the root causes of issues prepares students to take the next step in reaching out to people who can do something about those issues.

Regarding the third theme, students shared varying views on whether and how social media infrastructure hindered or aided

their advocacy efforts. The students who felt connected strongly to the identified social issue were more inclined to navigate the social media system in order to engage with others regarding the issue. The students who felt that the public nature of social media inhibited responses to their advocacy efforts may have forgotten that they should have been pursuing *public* advocacy. Seemingly targeting only people who may have been personally affected by the social issue was misguided. The students' cause would have been better served if they had presented compelling information to the public instead of directing selective messages to people based on their perceived ability to provide feedback.

Prior research had revealed that the functionality of social media platforms could support advocacy (e.g., *Junco et al., 2011; Lovejoy & Saxton, 2012*). Moreover, the popularity of standard-bearers Facebook and Twitter, with their open access and wide reach, implies that they can be instrumental in advocacy campaigns. Twitter users should keep in mind that they can circumvent the 140-character restriction by adding hyperlinks. Thereby they can share longer textual information as well as photos and videos.

Limitations of the Study

The research reported in this article had limitations related to social media technology, particularly in connection with Facebook. Privacy settings on Facebook, although beneficial in many respects, had a negative impact on dialogue. Public access to comments, and hence to a continual flow of dialogue, was dependent on the way users (account holders) set the privacy options of their Facebook account. Advocacy project participants with administrative privileges were able to see all posted comments, but visitors to the site were limited to viewing those comments that were made public. Consequently, site visitors did not have the opportunity to respond to previous comments and were unable to contribute to a coherent public discourse in the online environment.

In addition, many students set up pages for their advocacy project as offshoots of their personal pages. As a result, their personal privacy settings limited public access to their advocacy project pages. Although the course instructors had emphasized the importance of creating public pages for public advocacy, students often failed to comply. For a similar project in the future, there should be insistence on independent social media pages with full public access.

Implications of the Study

The findings of this study hold implications for teaching and learning as well as for research. With respect to teaching and learning, a course-based project such as this is best treated not as an overly academic enterprise but as a project that has real-life utility. In this regard, advocacy approached as service-learning may be quite effective (see *Berke et al., 2010; Bowen, 2014*). Service-learning is a teaching and learning strategy that integrates meaningful community service with coursework and critical reflection to enrich the learning experience, foster civic responsibility, and strengthen communities. Undergirded by civic engagement, this pedagogical strategy reflects a paradigm shift marked by active learning. Adopting an advocacy approach to address social issues is regarded as the "social change" alternative to providing direct service.

Students could benefit from being required to reflect on their advocacy project throughout the semester. Such reflection could help them avoid technological pitfalls and could lead to better utilization of processes that enable consequential results from their advocacy efforts. Regular reflection also would offer opportunities for students to enhance their reflective writing skills so their final papers would contain more-nuanced expressions of their advocacy experiences.

Further, faculty developing a similar advocacy project could consider encouraging students to develop a content plan that includes topical information to be posted and a list of desired outcomes that are realistic. Before embarking on the project, students also should be encouraged to outline a strategy with practical tactics to attract public responses and to sustain interest in the cause or issue being addressed. The strategy could emphasize persuasive social media discourse as well as effective engagement as demonstrated through questions posted, responses provided, and offline actions reported.

It is important for course instructors to cover the fundamentals of advocacy and to stress that awareness raising is not the totality of advocacy but only a necessary first step. Apart from providing information that builds awareness, advocates deliberately speak out on issues of concern in order to exert some influence on behalf of causes or people. Students assigned an advocacy project can take advantage of the affordances of social media to amplify voices, organize individuals, and mobilize support for people affected by identified issues.

With regard to research, students' use of social media within the context of a course warrants further investigation. We would like to determine the extent to which students can use social media effectively not only to draw attention to social issues but also to mobilize support in the online community, and, furthermore, to exert influence offline on the powers that be. If we were to undertake further research in this area, we would perhaps design it to include analysis involving the categorization of issue-focused, online communication content (both text and images) as well as techniques used to advance online advocacy. To increase participation in the research, we would offer incentives for online dialogue and for offline interaction and social action tied to the overall advocacy efforts.

Finally, we recommend empirical investigation by others that might involve a comparison of the outcomes of online advocacy with those of more-traditional forms of advocacy. Future research could also be designed to demonstrate how social media–supported advocacy can best serve as a catalyst for offline civic engagement.

Conclusion

Does students' use of social media for advocacy facilitate engagement with a social issue? The answer is yes. Granted that our students did not provide compelling evidence of exemplary advocacy, our research still revealed that they demonstrated some degree of engagement through their social media activity. For the most part, students used social media as an avenue of expression and as a conveyance of information. They posted messages on Facebook, Twitter, Tumblr, and Blogger about salient social issues and received responses from other social media users.

In conclusion, technology-mediated advocacy can provide motivation for collective action, but only if social media pages are organized intentionally and maintained consistently. Less-episodic student activity on social media will be necessary to effect more-authentic, higher-threshold engagement; to bring technology-mediated advocacy goals within reach; and to demonstrate the action-eliciting potential of such activity. It is incumbent on educators to create the conditions that will help students become engaged learners and develop facility in using social media for social good.

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Methodological Addendum

Critical social research methodology guided this study as it is appropriate to a critical-dialectical analysis of the social world. The qualitative approach was designed to produce expressions from participants reflecting how they viewed the social world. Applying the tenets of critical discourse analysis (CDA) facilitated understanding of social reality by presenting an integrated view of text and images within their specific contexts. However, CDA did not provide a holistic analysis of participants' issue-focused advocacy and engagement efforts.

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Understanding College Students' Civic Identity Development: A Grounded Theory

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Abstract

This article presents the results of a study designed to understand the development of college students' civic identity—that is, an identity encompassing their knowledge, attitudes, values, and actions regarding civic engagement. Grounded theory was used to examine the experiences and attitudes of 19 college seniors who manifested strong civic identities. The resulting developmental model of civic identity includes five "positions" that represent identifiable progressions of civic identity development and mediating "key influences" that promoted or hindered students' growth between these positions. Implications for research and practice are also discussed.

Keywords: civic identity, civic engagement, college students, higher education

Introduction

Preparing students to be engaged members of society is a vaunted outcome of American higher education *(Colby, Beaumont, Ehrlich, & Corngold, 2007; Jacoby, 2009)*. Through myriad civic engagement experiences such as volunteering, service-learning, study abroad, and alternative breaks, educators work toward building college students' civic identity, which can be thought of as an identity category comprising one's knowledge, attitudes, values, and actions regarding civic engagement. This definition aligns with common depictions of identity, which conceptualize development as occurring across three dimensions: epistemological (meaning-making capacity), intrapersonal (sense of self), and interpersonal (relationships with others) *(Baxter Magolda, 2001; Kegan, 1994)*. The intent, of course, is for the cumulative effect of civic experiences to positively influence students' civic identity, and for that effect to endure postcollege, whereby students continue to build their civic knowledge, value involvement in their communities, and remain actively engaged in civic matters throughout their lives *(AAC&U, 2002; ACPA & NASPA, 2004)*.

Two major problems exist regarding the civic tradition of American higher education and its intended outcomes outlined above. First, civic identity is rarely conceptualized as such; that is,

within the broad work of civic engagement, the effect on students is seldom described as shaping an underlying identity construct.

Instead, attention is focused on separate outcomes related to civic engagement (e.g., behaviors, attitudes, or knowledge) as opposed to a holistic construct integrating these different dimensions. Remarking on this curious supposition, Knefelkamp *(2008)* argues that educators should consider "civic identity as an identity status in its own right—one that can become as integral to individual identity as race, ethnicity, gender, nationality, or any other deeply claimed aspect of self" *(pp. 1–2)*.

Directly related to the issues of failing to acknowledge the impact of civic engagement efforts on the construct of civic identity is a second problem: little is known about how one's enduring civic self—or civic identity—forms, develops, and endures before, during, and after college. Researchers have a strong sense of the effects of various civic engagement efforts on different outcomes; however, lack of understanding of the developmental trajectory of one's civic identity remains a troubling limitation in civic engagement research. Although some researchers conceptualize civic identity as a construct *(Lott, 2012; Youniss, McLellan, & Yates, 1997)*, their work falls short of mapping how its development occurs. By considering the cumulative effect of civic experiences as influencing an underlying identity construct, researchers and practitioners can gain a better understanding of how civic identity develops over time and could shape environments more effectively to bolster its development.

Literature Review

Jacoby *(2009)* argued that civic engagement is a "big tent" under which myriad community-based experiences fall. Eyler and Giles *(1999)* offered a taxonomy to classify civic engagement efforts, which includes political participation (e.g., voting, holding public office), participation in voluntary associations (e.g., volunteer groups), and the generation of social capital (e.g., connections with and between individuals and groups). Under these broad conceptualizations, several researchers have established connections between participation in civic engagement experiences and various outcomes. Many demographic variables are important mediating factors in the development of aspects related to civic identity, including gender *(Dugan, 2006; Gimpel, Lay, & Schuknecht, 2003; Lott, 2012)*, race *(Cruce & Moore, 2007; Rowan-Kenyon, Soldner, & Inkelas, 2007)*, and socioeconomic status *(Jones & Abes, 2004; Jones & Hill, 2003)*. Several

studies have also examined the effects of precollege experiences on civic identity development. Campbell *(2006)* found that where young people grow up matters for their future civic participation. Kiesa *(2012)* found that civic identity is influenced by early opportunities for involvement in civic life, the nature of involvement opportunities, and whether students had civic role models. A study of 96,973 college students highlighted the importance of involvement with community service and leadership positions in student organizations in high school for attitudes and values related to civic identity *(Johnson, 2014)*.

Many college experiences can build aspects of college students' civic identities, and several studies have substantiated this relationship. Peer interaction during college *(Astin, 1993),* service-learning *(Eyler & Giles, 1999; Fullerton, Reitenauer, & Kerrigan, 2015; Pryor & Hurtado, 2010)*, involvement in activism *(Lott, 2012),* taking ethnic or women's studies classes *(Lott, 2012)*, studying abroad *(Lott, 2012)*, and conversations about and across differences *(Hurtado, 2007)* have all been shown to be positively linked to stronger civic knowledge, values, attitudes, and behaviors. Despite these studies, little is known about how these characteristics impact an enduring, underlying identity construct (i.e., civic identity). The current study seeks to address this gap by exploring the developmental trajectory of civic identity.

Study Design

Methodology

I used a constructivist grounded theory approach *(Charmaz, 2014)*, which is a series of "systematic, yet flexible guidelines for collecting and analyzing qualitative data to construct theories from the data themselves" *(p. 1)*. Grounded theory allows for a "unified theoretical explanation" *(Corbin & Strauss, 2007, p. 107)* of a process. Constructivist grounded theory features coconstruction of data analysis through shared experiences and relationships with participants *(Charmaz, 2014)*. In addition to how data are collected and analyzed, constructivist grounded theory acknowledges that the resulting theory is an interpretation mediated by context and the researcher's understanding. Charmaz's approach to grounded theory focuses on unearthing ideologies, multiple realities, and complexities of particular words, views, and actions.

The research question guiding this study was, "How does civic identity form and evolve over time?" I chose participants from a

midsized, 4-year public predominantly White institution (PWI) located in the Midwest region of the United States, pseudonymously called Academy University. I selected this institution because of its large variety of civic experiences and local and national reputation for strong civic experiences. Once I identified the institution and secured IRB approval, I sought information-rich participants who had strong civic identities. I compiled a list of university employees who were uniquely situated to recommend study participants who valued civic involvement, were engaged in their communities, and were reflective of their experiences. I solicited recommendations of college seniors who fit the above criteria via e-mails to 85 university employees, which netted 120 unique student recommendations. I e-mailed all of the recommended students and asked two initial screening questions: "What does the term civic identity mean to you?" and "What civic experiences have you been involved with while in college?" Their answers informed my decisions about who to initially interview based on the depth of experiences and understanding of their civic identity. Aligning closely to grounded theory methodology *(Charmaz, 2014)*, I interviewed students, transcribed the interviews, and analyzed data throughout the process of theory building. I added additional participants to the study to refine the data and interpretations, which ultimately led to interviewing 19 college seniors twice; both interviews lasted approximately 60–75 minutes. Interviews occurred over the course of 4 months to allow for sufficient data collection and simultaneous analysis. Ten students identified as White, and the other nine identified as students of color or multiracial. Thirteen identified as women and six identified as men. More information about participants can be found in Table 1; salient identities and significant involvements were chosen by participants.

Table 1. Participant Table

Name	Major(s)	Significant College Involvements	Salient Identities
Sara	Sociology	Civic Engagement Center, AmeriCorps	White, woman, lower middle class
Shane	Sports Management	Gear Up, Phi Beta Sigma, AmeriCorps Vista	Black, man, first gen, middle class
Carrie	Psychology	Honors, Study Abroad, Special Olympics	White, middle class, woman
Sadie	Biochemistry	Global Brigades, Pre-Med Society, Study Abroad, Honors	Woman, middle class, Lebanese, Polish, Italian, Catholic
Gabrielle	Spanish and Sociology	Honors, Diversity Scholar Program	Female, White and Latina, middle class, first gen
Antoinette	Sociology	Gear Up, Diversity Scholar Program	Biracial, female, first gen
Colleen	Special Education	Alternative Breaks, Disability Awareness Project, Special Olympics	White, female, Christian
Wendy	Physical Therapy	Civic Engagement Center, Honors	White, middle class, woman, Catholic
Oliver	Human Resources	Hall Council, RHA, Alternative Breaks	White, upper middle class, gay
Cameron	Marketing and Logistics	Civic Engagement Center, Alternative Breaks, On-campus employment	White, gay, lower middle class
Thomas	International Business	Diversity Scholar, Sexual Aggression Prevention & Advocacy Group, Men's Group	Black, male
Lydia	Public Relations	College Access Programs, Society of America	Black, woman
Amber	Political Science (Public Administration)	Student Government, Take Back the Tap, Environmental groups	Female, White and Hispanic, lower SES
Sandra	Pre-med	Honors, Pre-Med, Global Brigades	Mexican and White, Christian
Vance	Industrial Technology Management	Alternative Breaks, Residence Hall Council	White, male, heterosexual, upper middle class
Stephanie	Geology	Slam Poetry Club, Resident assistant	White, female, heterosexual, upper middle class
Janice	Elementary Education	Sorority, Student Activities Office, Cohort Leadership Program	White, female, heterosexual, middle class
Samuel	Integrative Public Relations	Public Relations Society, Alternative Breaks	Gay, male, lower middle class
Kyla	Political Science (Public Administration)	Diversity Scholar Program, Pre-law fraternity, Student Activities, Study Abroad	Latina, middle class, female

Data Analysis

To analyze the data, I followed Charmaz's *(2014)* recommendations for coding, which involved three phases: (1) an initial phase involving naming each line or segment of data; (2) a focused, selective phase that uses the most significant or frequent initial codes to synthesize large amounts of data; and (3) theoretical coding. In this inductive analysis, the initial phase generated 1,087 unique codes. This heuristic approach allowed me to uncover and make meaning of smaller pieces of information and make more intentional connections to other, smaller pieces of data. In this initial phase, I relied on breaking up the data into small segments, interpreting their meanings, crystalizing significant meanings, comparing data, and identifying gaps in my understanding. In the second, more analytical phase, I compared the initial codes to reveal patterns, gaps, and connections. These comparisons helped generate larger theoretical categories and patterns through an iterative process, which was the third phase.

In theoretical coding, researchers take the larger focused codes derived in Phase 2 and examine how they "may relate to each other as hypotheses to be integrated into a theory" *(Glaser, 1978, p. 72)*. In this phase, I engaged in an iterative process of theorizing how civic identity developed for the participants in the study, since theoretical coding helps "weave a fractured story back together" *(p. 72)*. In each phase of data analysis, I employed memoing, which allowed for capturing emerging connections, questions, and thoughts as I analyzed the data.

A central challenge in grounded theory is the tendency to generate theory that is too far removed from participants' experiences and perhaps too strong a reflection of the theorist's ideas. I took several precautions to help mitigate these potential misrepresentations. I adhered closely to Charmaz's *(2014)* recommendations for data analysis, including following the process outlined above and revisiting initial codes frequently. Additionally, I employed two layers of member-checking. First, I e-mailed a draft of the grounded theory model to participants to see how well it fit with their experiences and gathered feedback. Second, during the second interviews, I asked participants for additional feedback about the model. Students' feedback was incorporated into the manuscript, and there were no irreconcilable issues. To further bolster trustworthiness *(Charmaz, 2014)*, I also debriefed my interview protocol with two experts in the field and presented the results at two national conferences to gain feedback. I also offer my own positionality here, because as Bourke *(2014)* argues, a researcher's beliefs, values,

and sense of self guide their research from study design through reporting findings. I hold many privileges as a White, cisgender, heterosexual, able-bodied, middle class, Christian man. I came to the question of civic identity development partly because it is my story. Before I attended college, civic engagement and social change were not important personal values; at the end of college, they were so central that they mediated my career, relationships, and scholarly interests. My political ideology is progressive, meaning that I value equity and equality and believe institutions such as higher education and state and federal governments play a vital role in shaping a just society.

Limitations

Despite these steps to ensure rigor and quality, several limitations exist. Grounded theory seeks to generate theory based on participants' experiences; the degree of transferability to other contexts is likely limited, especially since civic experiences undoubtedly differ by campus. Given the limited research in this area, this study is not designed to position a definitive model; rather, it serves as an important starting point for conceptualizing civic identity development. Future research should seek to replicate this study with different participants. Additionally, this phase of the study did not employ a longitudinal design, which forced students to retroactively assess their civic identity development over their lifetime.

Results

The civic identity developmental model in Figure 1 depicts the developmental process of civic identity formation grounded in participants' experiences. Each of the five distinct themes is referred to as a *position*, a term that I chose for several reasons. First, positions depict a point or place in participants' development from which they seek to engage in the world. Second, positions affect one's power to act as well as points of view or attitudes. Finally, characterizing these themes as positions allows for more fluidity between them since positions are mutable. These civic positions were largely mediated by the *key influences* (described before the next sequential civic position) that either provided necessary support for participants to advance to the next position or posed undue challenge that constrained movement. Although there was considerable fluidity in how students passed through each position and manifested elements of earlier and later positions simultaneously, as illustrated by the openness between them, there was also distinct consistency

Civic Identity Development Model
CIVIC POSITION
Nascent Awareness -
"Part of What I Notice"
Observing civic behavior
Noting messages (mostly implicit)
about civic values
Little participation in civic
experiences
KEY INFLUENCES
Family
Early involvement
CIVIC POSITION
Emergent Exploration -
"Part of What I Do"
Focusing on "doing good"
Building foundational group skills
Growing value of involvement
Apolitical view of involvement
Recognizing some privilege
KEY INFLUENCES
Cohort experiences
Early involvement, usually non-civic
"Path" for continued involvement
Coursework
Reflection (mostly formal)
Mentors
CIVIC POSITION
Developing Commitment -
"Part of Who I Want to Be"
Deepening involvement
Developing an increasingly important value
Questioning morality
Value conflict
Evolving peer network
Increasing understanding of privilege
Forging connections to other identities
Making initial political connections
KEY INFLUENCES
Disorienting experiences that
highlight complexity of civic work
Explicit theoretical models
Civic "incubators"
Clarity of "path" for deep work
Peers
Coursework
Reflection (formal and informal)
Mentors
CIVIC POSITION
Deepening Commitment -
"Part of Who I Am"
Experiencing tension with peers and family
Focusing on more intentional civic involvement
Increasing civic efficacy
Growing ability to act congruently with civic values
Increased identity complexity
Stronger identity connections
Deepening political connections
Increased ability for perspective taking
Helping develop others' civic identities
Experiencing tension with privilege
Growing ability to work with privilege
KEY INFLUENCES
Major
Political activism
More advanced civic
opportunities
Critical community
Reflection (mostly informal)
Mentors
CIVIC POSITION
Integration -
"Who I Am"
Sustained efficacy
Advanced sustained congruence of values
Committed to growing alongside others
Holistic identity formation
Ability to integrate opposing views and ideas
Synergy between civic identity and career
Alignment between civic identity and purpose
Wisdom born out of relief
Systems thinking

Figure 1.

in these positions. This diagram of the model illustrates maturity and increased sophistication of civic identity development going from left to right, with deepening of civic identity depicted by the downward slope of the model.

Nascent Awareness—"Part of What I Notice"

In this initial position, participants started to observe civic behavior. They began to recognize that among the many ways in which people invest their time, doing civic acts was one of them. They recalled noting their parents donating money or items to charity and volunteering. These acts were rarely discussed in their homes, and seldom included explicit messages about the values embedded in them. Participants noted these civic acts but participated in them on a limited basis. For most students, this position occurred around middle school, somewhere between the ages of 8 and 11. Janice "tagged along to everything" with her mother, who was very involved in their community. Kyla recalled, "I would always see her doing those things, which is sort of what got into my head that, 'Oh, it's actually fun to like be involved and do these kinds of things.'"

For all but four of the students, religion provided their introduction to the civic domain, and in many cases, actually served as the impetus for civic involvement. Mission trips, food pantries, fund raisers, and canned food drives, all connected to their places of worship, were students' first civic experiences. For many students, like Antoinette, these activities were "purely focused" on religion. Lydia had a similar experience, joining a youth group in the eighth grade. Sandra recalled, "All of the service I can think of doing before college was either based some way, shape, or form around my church or a church-based group." Just like the students who developed a nascent awareness of civic engagement outside a religious context, very few of the students recalled specific, explicit messages from church officials or their parents about the purpose or value of participating in these experiences.

Other students had a more deliberate introduction to civic participation. Thomas said that community work was not something he stumbled into through church or a student group in primary school. It was a deep and meaningful part of his family. His family has roots in the civil rights movement, and they impressed the lessons from this time into the fabric of their family:

> My mother especially really drilled into me not only my history but the whole civil rights movement, because I

> didn't learn a lot of it in school. A lot of it was taught by my parents, especially my mother. She taught me a lot about the rights and being involved.

The same was true for Stephanie. Both her mother and stepfather were educators and were always involved in political causes, especially those connected to education. She remembers community theater, writing letters to Congress, and wearing campaign buttons, which were accompanied by several conversations with her family about the importance of involvement.

Key influences. Participants described two main influences that formed this position and helped form the necessary foundation to move to the next one: family and early involvement experiences. After watching their family take part in civic experiences, they, too, began to participate in them more. Early involvement experiences in organizations for young people (e.g., student council, yearbook club, church group) provided an important laboratory to develop group skills and, often, to continue civic engagement.

Emergent Exploration—"Part of What I Do"

At this civic position, participants became involved in various groups; some of these groups had inherently civic missions (e.g., National Honor Society, Girl Scouts), but most did not. Those groups that had civic aims were mostly focused on "doing good" through volunteering—organizing canned food drives or volunteering at a soup kitchen. In these groups, which were mostly high school student organizations, students built foundational skills for working in groups and began to value involvement. Many of these groups had mandatory volunteer hour requirements. Cameron's involvement with National Honor Society in high school required him to acquire 10 hours of community service, so he volunteered with a Little League baseball team. Even though it was a short time commitment, Cameron had an epiphany. "I was like, wow, there's a lot more to do that you don't really see on a day to day basis." Additionally, students viewed their involvement as apolitical—completely disconnected from politics. Through these experiences, students grew in their awareness regarding their privileges (e.g., they had necessities, while others did not). For students who held privileged identities, especially around race and class, their awareness of privilege was often an initial realization of privilege related to race or class. For students of color, for instance, this position did not mark a realization of privilege since they were already aware of privilege and oppression; instead, this position marked a deepening

in their understanding and helped them better understand other privileges they hold.

Students' early experiences with social and civic groups continued once they went to college, although civic engagement was not on the minds of most students when they chose to attend Academy University. Scholarships and reputation of specific academic programs were the two biggest factors in their college choice. Civic engagement was either not on their radar at all or an ancillary factor once they made their decision. Ophelia and Lydia were the only two who were heavily influenced by the strong emphasis Academy University placed on civic engagement. The opportunity to maintain involvement in honors and college access programs—things they were involved with in high school to which they attributed a lot of their success—was a large factor. But for most students, civic engagement was not a driving factor in college choice. Several cited cohort-based programs as important because of the financial assistance they provided. These experiences also provided the critical bridge from high school involvement to collegiate involvement, but they were not the motivating factor in these students' decisions to enroll at Academy University. Janice said,

> I was very lucky in the fact that I was involved with [cohort leadership program], because right from the get-go, I was surrounded by people who were like me, who were involved in high school, who most of them wanted to continue that involvement.

All of the cohort-based programs in which the students were involved, such as the honors program or the multicultural leadership fellows, included mandatory service hours, which were critical to fostering civic identity. Having a requirement to complete a mandated amount of volunteer hours sent a clear message to students that community involvement was important and provided the necessary motivation to get involved. Gabrielle, a member of the honors program, said the required hours gave her "a path for continued involvement."

As students reflected back on the service hour requirements in their cohort-based programs, they had mixed feelings. Carrie panned the stipulations in the honors program that students could fulfill only a limited percentage of their requirements in one category. Gabrielle was critical that her diversity cohort program required all service hours be performed within the city where Academy University was located. Because Carrie and Gabrielle

already had a strong direction for their desire to serve, this stipulation hindered their ability to deepen their civic identity. Gabrielle argued these restrictions "dampened my passion to volunteer."

For other students who were not in a cohort program, their involvement in community work emerged from prior, general involvement in college without a lot of thought put into it. Oliver's friend asked him to accompany him to a Residence Hall Association meeting on a whim, which led him to value cocurricular involvement. Vance "tagged along" with his resident assistant to a hall council meeting, where he later got involved. This was the case for most students—casual early, seemingly noncivic involvement eventually led them into more civic work. Colleen stated, "I chose [Academy University] because of the special education program and then it just felt like a fit. It didn't really ever cross my mind about service as just something I think in the back as like I'll find it if it was there. Luckily I just fell into what happened here."

Key influences. Several important influences helped propel students into the next civic position, including cohort-based experiences, peers, early involvement (usually noncivic), a clear path for continued involvement, coursework, reflection (mostly formal), mentors, and study abroad. Each of these experiences provided the necessary support for moving students from general civic involvement toward becoming a person who valued civic engagement.

Developing Commitment—"Part of Who I Want to Be"

In this position, participants deepened their involvement. Being involved in their communities became an increasingly important value. Participants wanted to increase their civic involvement as a result of early exposure to civic experiences. Having volunteered in high school in some capacity, most students wanted to continue that during college, although for most students, it was not a pressing priority. Only two students identified opportunities to continue civic involvement as a primary reason for attending Academy University. Some students, like Carrie, did not even identify as someone who did civic or community work until attending college.

Two experiences stood out as vital to students' civic identity development early in college as they were beginning to develop a commitment to civic work: alternative breaks and study abroad. Ten of the students participated in alternative breaks early in their college career. Academy University offers one of the largest alter-

native break programs in the United States, with opportunities for spring, summer, winter, and weekend trips. Oliver's coworkers had been on alternative breaks and encouraged him to apply. He responded, "Okay. This is really cool. Volunteering isn't something that I really know a lot about but this is interesting." His comments capture what many students expressed: Making an initial commitment to go on an alternative break was not fueled by a deep civic desire to become more engaged, but rather a small commitment to getting more involved in civic work.

Perhaps unsurprisingly, studying abroad was another important experience for building students' civic identities. Colleen, Gabrielle, Carrie, Wendy, and Janice all discussed how the chance to visit another country was critical for broadening their understanding of social issues and developing their commitment to do more civic work. Janice said study abroad "led me down a more other-focused path" for the rest of her college and postcollege involvement. Colleen's experience in Peru highlighted the injustices happening there in education, which deepened her commitment to combating injustice through education. Gabrielle's extensive travel to Latin America strengthened her understanding of social justice issues and their connections to issues closer to where she grew up.

Because study abroad and alternative breaks happened earlier in these students' collegiate careers, these experiences acted as important catalysts for exploring civic and social justice issues. These were key moments where students developed a broader understanding of social issues and committed to addressing them through gaining a deeper understanding and taking action where they could. They were critical for developing commitment for their civic identities.

As students began to make civic commitments, important shifts started within all three dimensions of their identity. Participants started to question previously stable beliefs of morality as they gained a more complex understanding of social injustices. This questioning allowed for emergent connections to the political sphere in which these injustices were taking place. The students faced value conflict within themselves. Their peer network evolved as they began surrounding themselves with others pursuing more civic and community work. They began forging connections between their emerging civic identity and social identities they held, which made understanding privilege and oppression more salient. A connection to political contexts in which civic work is embedded started to take shape.

Key influences. As students began developing civic commitments, several influences helped them deepen these commitments, which included disorienting experiences that highlighted the complexity of civic work, explicit theoretical models that helped frame and give language to their experiences, civic incubators (i.e., holding environments that allowed students to deepen their civic identity), clarity of path for deep work, coursework, reflection (formal and informal), and mentors.

Deepening Commitment—"Part of Who I Am"

In this civic position, participants underwent the most marked transition in all three dimensions of development. Overall, they experienced a strong increase in civic efficacy (i.e., confidence and ability to work effectively with others toward a more just society) and a growing ability to act congruently with evolving civic values. This transformation brought on tension with peers for most and tension with family for some. Students demonstrated increased moral complexity largely driven by a strengthened capacity for perspective-taking. Students voiced a strong desire for helping others develop their civic identities, as well as a demonstrated ability to work with privilege and work toward social justice, despite mounting frustration with inequality, discrimination, and injustice.

In this position, students articulated a growing belief that they could make a difference in the world, and they could be civic "change agents," as Sara said. After dealing with considerable uncertainty brought on by experiences in their previous position, students at this position felt as though they could work with others to promote positive societal change. They experienced a shift in their values as they began to make lasting commitments to civic work. This shift had a significant impact on not only how they spent their time, but also with whom they spent their time. As civic identity became more central to who they were, students discussed how their relationships with others continued to shift. Carrie spoke of the difficulty of going back home:

> I'm from a small town, so a lot of people are very small-minded, very small thinking, and so it is really hard for me when I go home to go back to that kind of setting just because I view it so differently. I'm a very outspoken person, so I will express if I don't agree with what you're saying or if I think you're being rude, so it's hard for me to try to go back.

Oliver said he often feels like a "black sheep" since he values civic engagement and social justice work. Like Oliver, Vance and Thomas discussed feeling different from so many of their peers as their civic identities became central to who they were. Every student in the study discussed the difficulty in relating to their peers and family members at this position and how it caused strife for their sense of self.

In deepening his commitment to his civic identity, Cameron talked about the importance of explicit theoretical models such as the active citizen continuum to help make meaning of his experiences. Vance discussed how the social change model of leadership, which he was introduced to early in his civic engagement, helped frame his role in what was a much larger ecosystem of social and political issues. "It helps me see what is necessary to make change," he said.

In this position, students cited a strong ability to engage in reflection—both formally and informally—regularly. Oliver cited the alternative breaks program as being helpful for perspective-taking. "One of the components of alternative breaks is education. Learning more about social issues and how to have conversations about social issues and everyday life, how to have conversations with people and being mindful." Samuel said,

> The reason that I loved the alternative breaks program is because of the fact that we do reflection, and we really get deep down into how social issues indirectly or directly affects you. I think that's what really . . . it started to click really for me when I started to really have those deep thoughts about how do these social issues affect me.

Students unequivocally stated that being able to reflect critically on civic, social, and community issues was a direct result of engaging in formal, facilitated reflection early in their civic identity development. Experiencing an intentionally designed and facilitated reflection led to an ability to engage in deep, meaningful reflection later in their development. Sadie noted the formalized reflections that were part of Global Brigades. Stephanie noted the reflections as a resident assistant. Vance discussed how formal reflections helped deepen his internal processing, which he does often as an introvert. "I think it's that type of internal processing on your own that really made me think that sort of thing is just as important or maybe even more important than the formalized opportunities to

make meaning and think things through." Without taking part in effective reflections prior to this position, students said they would not have achieved deepening of their civic identities. For most students, ongoing discussion of civic and political issues seeped into their virtual interactions as well. Students described having "group chats" (i.e., ongoing conversations through text messages). Shane's fraternity had a group chat in which, alongside messages about meeting times and event reminders, were discussions about racial justice. Cameron had the same experience with his closest friends, who were involved with the civic engagement center.

These intentionally developed reflections were the building blocks for students to engage regularly in reflection and perspective-taking. Sara attributed a lot of her development to the daily interactions with people from the civic engagement center, who helped her grow "as an advocate to address a lot of social issues." She cited these informal interactions as key for her to develop a strong civic identity. Vance had similar experiences in the civic engagement center. Those students involved in Global Brigades and honors described a similar network of peers where they could regularly interact and develop their civic identity.

As informal reflection and perspective-taking became frequent, the role of mentors and peers became more important. Amber discussed the importance of a more advanced peer whom she had met through her various involvements to help her make the connections:

> For me, I'm really slow at learning. Especially with a lot of these big concepts, I have a good friend, she's a peer but she's kind of like my mentor in a way and she's the one I'd be like, 'What? School to prison pipeline? What?' And she was like, 'Yeah,' and she would spell it out for me and go to a PowerPoint. She has really helped me grasp bigger concepts.

Gabrielle found trying to sort out the interconnections of social issues "overwhelming for a little bit just thinking about all. Poverty, homelessness, hunger, these racial tensions. All these issues and they're global." She cited mentors in some of the programs in which she was involved as key to helping her make sense of these interconnections.

As increasing complexity of understanding social issues marked this position, so, too, did the recognition that there were limited opportunities for students to explore them at a deep level.

Amber discussed the difficulty and narrowing of opportunities to deepen students' civic identity at this position:

> I am going to these events and to these different civic experiences, but that's it; instead of them being a stepping stone to something bigger, most people just call it good because there isn't much beyond the introductory stuff like alternative breaks.

Her poignant comment highlighted an important barrier to arriving at this position: once students have exhausted the civic experiences designed to raise awareness and help develop commitment toward civic and community life, what do colleges and universities offer to deepen those experiences?

For many students, coursework was invaluable to strengthening their commitment to civic identity and to growing in this identity. Courses that explored structural racism, political movements, oppression, coalition building, and other aspects of civic life were critical to almost all students in this position. Sara, Gabrielle, and Antoinette all mentioned their sociology coursework as helping them develop their civic identities by supporting a more complex understanding of social issues. However, finding courses that deepened their civic identity was a challenge, especially when those courses focused on issues related to people of color, indigenous populations, or civil rights. Antoinette posited, "There's a large lack of classes focused on minorities. I took my political science class for civil rights movement and African American politics. I don't know the department but I'm pretty sure there's only three professors that teach those courses." Not having these widely offered, she said, "draws less attention to what the needs are and people feel like it's not their responsibility."

The lack of supportive coursework hindered students' ability to articulate connections between their civic work and the larger political domains in which they were situated. Oliver discussed how difficult it was to connect his civic experiences to the larger political context at a deep level. "I think it's challenging. In my mind, it's easier for me to connect different issues but it's hard to talk about." In fact, 10 additional participants similarly failed to articulate much connection between their civic identities and the political sphere. Like Wendy, who said, "I know there are political connections but I can't really describe them well," students struggled with this aspect of their civic identity.

Largely because of their greater understanding of the complexity of civic work and social issues, the long-term sustainability of their civic involvement became more important to students. They were better equipped to see the limitations and potential harm of one-time service experiences and sought ways to deepen their impact so that it addressed structural issues. After several civic experiences, Carrie remembered thinking, "Okay, well, how are we going to make this sustainable? How are we going to keep this going? Because you can't be everywhere."

Key influences. Those experiences that helped students integrate their civic identities into who they were included their academic major, political activism, more advanced and complex civic experiences, sustained reflection, critical community, and mentors.

Integration—"Who I Am"

The last civic position was marked by many aspects: demonstrating systems thinking, including a robust understanding of political dimensions, privilege, institutions, structures, and oppression; sustained civic efficacy (i.e., enduring confidence in skills to make a difference); a commitment to growing in one's civic identity alongside others; a critical community; and a healthy sense of self that often included harmony with religion or spirituality. Only three students showed significant evidence of inhabiting this position, but those who did regularly acted on their ability to integrate opposing views and ideas into their worldview and experienced synergy between civic identity and career.

Central to this position was students' ability to understand the complexity in civic work, which is most readily categorized as systems thinking *(Senge, 2006)*. Systems thinking allowed students to see the interplay and connections of institutions, policies, and processes in society that mediate social and civic issues. Unlike the previous position where students struggled to see the political connections of their work, this position was characterized by considerable clarity in comprehending the myriad factors mediating social issues. Several sources of support aided in students' ability to engage in systems thinking. Antoinette found faculty from her major to be critical influences on this more complex way of thinking. As she began to grow in her civic identity, she pondered, "Now I need to know how are these things working. How are things lined up? How does the system work? How does it relate to me and my life?" For Amber, mentors fueled her systems thinking. "It wasn't because of school, which is so mind boggling to me. I am thankful I had the

individuals and those kind of people surrounding me, but really to make the connections around environmental issues being worse in the places of the lowest class." Amber's comments highlight the earlier finding that Academy University offered these students few opportunities to grow in their civic identity in more advanced positions.

Students also articulated a strong sense of civic efficacy and an enduring belief that despite the complexity and difficulty of community work, they could make a difference. Amber knew that staying involved in community work and pursuing systemic change would not be easy, but that "it would make a difference, even for one person. And I know I can do more beyond that." Sara said that even though larger societal change is no doubt difficult work, she found daily interactions to be sites for making a difference. She knew they "wouldn't solve the world's issues" but could be opportunities to help others in becoming more other-oriented.

Central to students' enduring beliefs and civic efficacy is what Henderson *(2007)* calls "critical community," which is a group characterized by "critical theorizing, reflection, and a clear commitment to working for social justice through empowering and transformative practice" *(p. 1)*. To engage in critical community, participants must understand the complexity of social issues and work in community with others to address them over time. Creating or finding space for critical community while in college was predictably difficult. Although participants noted making deep, meaningful friendships while in college, few felt a level of kinship with their peers that would be described as critical community. Samuel and Thomas both described examples of critical communities, however. Samuel found that his friend network was "very focused on social issues," and they discussed them in person and online through social media. Thomas found community in both his men's group and sexual aggression prevention and advocacy group. "Change occurs when you're working with a group of people, not just one," he opined. These groups and networks were much more than peers with common interests—they were "life-giving" communities that nurtured participants' civic identities and sustained them.

Integrating a strong civic identity with postcollege plans was an incredible struggle for students. Now that their civic identity was so heavily intertwined with their sense of self, finding an internship, job, or graduate school, or even choosing a career proved difficult. Cameron, who was seeking an internship that aligned with his civic identity, said, "I think that's why it's been difficult for me to find an internship because none of it really excites me because it's just not

what I'm looking for." When thinking about a career, Sara realized she didn't want "to do all this [civic] stuff on the periphery that I really love to do, I want to make that the center of my life and go into a career that I could focus on that." She changed her major to sociology because that was what an influential teacher taught. She "related to it and felt like it was a better field of study to prepare me as a social advocate because we discuss things like power structures, social inequalities and those kinds of things." Carrie described how she used to see her career and civic identity as separate:

> It used to be physical therapy, that is my job, I'm going to get money, it's going to be awesome, I'm going to love my job, and then more of volunteering was more on the side. Now I see physical therapy as a way to help people in meaningful ways.

Antoinette described her thinking between career and civic identity similarly. "They're not two separate identities anymore. Now they're just one big clash of identity." Sadie, like all but one of her peers, was not thinking of civic experiences when she came to college. However, now that she was applying to medical school, it was at the forefront. "I'm looking at what types of free clinics are there? Can I do anything like mission trips or work abroad? Can I do research that's related to help disparities?"

Many students, like Colleen and Vance, expressed a desire to have their civic identities and careers in harmony, but were not sure how to make that happen. "I would love to get more involved with them, so I can intermesh the two of them so they can still do stuff of what's going on, but I don't know what that looks like right now," Colleen said. Oliver felt similarly, saying, "It's really challenging for me right now to see the relationship between the two. I guess between my coursework that's not really something. . .civic identity isn't discussed, and service isn't really something that's discussed either."

Many students faced resistance and sometimes hostility as they integrated their civic identities into their careers, especially in the business school. Oliver cited a lack of support from his human resources coursework in supporting finding meaningful employment that aligned with his civic identity. Cameron, another business major, argued that there is a mantra in the business school: "You got to keep reading if you want that corner office and that Mercedes." He felt that the business school had a culture "geared towards being successful, climbing the ladder." The context offered

him limited guidance, "so it's just trying to figure out what's the right path at this right time." Cameron felt that the business school devalues civic engagement as well. "They stress that internships are important and volunteering looks nice but it's not an importance, which is probably something that people don't really pay that much attention to." Thomas, also a business major, corroborated this statement. His civic identity was heavily intertwined with social justice work. He said that concerns important to him were overlooked: "race, diversity, gender equality. They've never even come up in [business school building]. So no . . . no civic stuff is being discussed over there."

The business school was not the only source of tension for students seeking to integrate their civic identities into their careers. Stephanie discussed the draw of eschewing civic identity and following money:

> Being a geology major, I have a plethora of opportunities to work for big oil. It's very attainable and it is compensated extremely well. I mean, they will pay for my masters and after that I can be making $100,000 easily working for Shell. You are treated so well.

Colleen, who maintained significant involvement in working with people with special needs, said she often incurred pushback from professors when she informed them about absences because of her necessary attendance at related events. "My math professor said to me, 'Why would you want to do that?'" Even when academic colleges were not hostile toward students, more often than not, they displayed a general ambivalence toward promoting students' civic identity development. Samuel said that "not a lot of people ask" about his challenge in integrating his civic identity into a meaningful career. Vance and Shane shared similar sentiments. For many students, the notion of integrating one's civic identity into one's career was not supported by their majors or the larger Academy University community. Thus, students' majors acted as key influences that hindered their development into the integration position.

In addition to unsupportive majors, some students found the administration at Academy University supportive of some aspects of civic identity (e.g., supporting volunteering, joining student organizations) but not others (e.g., sustaining civic efficacy, addressing oppression, acting politically). Sara remarked,

> I think our administration here . . . as a whole, who may, on a face value promote these kinds of values, like in our mission statement for the university. Social responsibility and all these different types of things, but I don't think that that's necessarily what we're actually aiming for as an institution. I don't think it's just [Academy University], I think overall in society.

She also said, "Some of my really good friends were in a meeting with [Academy University's president] recently. He said we're all going to evolve once we graduate and not care about these issues anymore." Kyla, through her involvements on campus, was able to see this disconnect between Academy University's espousal of diversity and social justice and how the institution enacted its ostensible values. Having a strong passion for social justice, she was upset to find how "chronically underfunded" diversity efforts were at Academy University. She found it hard to deepen her involvement and identity around these issues when the relevant offices "ran in the red every year" and "couldn't do what they needed to do." The lack of advanced opportunities for civic engagement was a key influence that hindered students' growth.

Knefelkamp *(2008)* surmised, "By developing an active, integrated civic identity, individuals begin to find wholeness and psychological balance within themselves and with others in the world" *(p. 3)*. When I asked students if this quote resonated with their experiences, they all unequivocally agreed. As students grew in the later positions of civic identity—and especially in this final position—a strong, integrated civic identity was associated with an overall healthy and enriched sense of self. Students were filled with a sense of purpose and psychological balance that allowed them to remain committed to civic and community work. Additionally, regardless of what students were dealing with in their lives, an integrated civic identity helped them feel at peace with it. Sara said that "being in community with others" who have a strong civic identity helped her feel balanced in her life despite mental health challenges. Amber found that being surrounded by others who had strong civic identities helped her fight the "alienation and isolation we all face in this world."

Discussion

The civic identity development model provides five distinct civic positions and the corresponding key influences that spurred their development. Consistent with other holistic development

models such as Baxter Magolda's *(2001)* self-authorship journey, Mezirow's *(2000)* theory of transformative learning, and Kegan's *(1994)* self-evolution theory, students in the current study progressed from simplistic, fixed, certain positions of civic identity to more complex, mature, and integrated ways of being, knowing, and relating to others and their environments. Spurred by key influences that provided a necessary balance of challenge to their identities and support to grow in more sophisticated ways, each civic position evidenced a transformation in how students were positioned to participate in civic engagement. Later civic positions reflected greater cognitive complexity, increased centrality of civic identity to their sense of self, and an increased ability to incorporate other perspectives and work effectively with others. This depiction is also consistent with Abes, Jones, and McEwen's *(2007)* revised model of multiple dimensions of identity, which showed how students' meaning-making filters mediate their self-perceptions of their various identities. The resulting grounded theory model details this process, which is specifically related to civic identity development and what influenced students' growth.

Consistent with prior research *(Campbell, 2006; Johnson, 2014; Kiesa, 2012)*, precollege experiences were critical to forming participants' civic identities. Demographic variables played important roles, too, but were not as salient as they were in prior research. Most participants saw their civic identity development as inclusive of their social identities, but not necessarily spurred by them. Women in the study were not driven to deeper levels of civic identity because of their gender, for instance, but most saw important connections between their civic identities and other social identities. Participants of color were able to draw greater connections between their racial and civic identities, largely driven by the salience of their racial identities and emerging racial justice movements such as Black Lives Matter.

College involvement was also critical to civic identity development. The "usual suspects" (e.g., service-learning, peer interactions, student organizations, reflections, conversations about and across differences, mentors) were prominent influences on participants' civic identity development. The current study affirmed the importance of these factors and disclosed greater nuance to their nature, particularly surrounding the nature of reflections, peer influence, and paths for continued involvement. The model also highlights additional influences such as explicit theoretical models, civic incubators, and a critical community, which are not prominently reflected in current scholarship.

Implications for Practice

The implications for practice from this study suggest a strong need to view civic identity as a developmental construct. As Knefelkamp *(2008)* argued, educators ought to view the impact of civic experiences on students as contributing to an identity construct because doing so centers how knowledge, values, and behaviors coexist and influence each other. Building on Abes et al.'s *(2007)* model, the current study illustrates how civic identity is an additional identity dimension category that follows a developmental trajectory and can become more salient for students over time. This perspective can enable educators to develop a stronger understanding of how their work impacts student learning and development, with a particular emphasis on what promotes or hinders growth. Educators would be better positioned to structure developmentally appropriate interventions along students' civic identity trajectory if they conceptualized civic identity as such.

Critical to structuring developmentally appropriate and sequenced experiences are the key influences that were shown to be instrumental and powerful for promoting growth along the positions outlined in the model. These influences serve as tangible ways in which educators can support students' development of civic identities. Educators can take several specific types of action to help students reach more complex positions of civic identity. First, educators must help students critically reflect on their experiences through formal, guided reflections. Reflections were the most commonly cited influence in every position of the model. Highlighting the importance of reflection in civic work is nothing new, of course, but it merits reiteration. A finding unique to this study was that formal reflection, when modeled effectively, built students' capacities to engage in informal, unstructured reflection individually and with others. This capacity was critical for growth in later positions.

Next, educators should anchor their work in explicit theoretical models that help students interpret their experiences and promote growth. Students' civic identities can also be deepened through administrator and faculty partnerships. Many students found that faculty were instrumental in understanding social issues, structural racism, and community issues. Faculty expertise was key in helping students achieve a more complex understanding of civic issues. Relatedly, students need a clear path for increasingly complex and developmentally appropriate civic experiences. Several students in this study discussed how they felt stuck in their civic identity development after they experienced several of the

common civic experiences afforded to them (e.g., service-learning, alternative breaks). Educators should be readily equipped to provide students with a sequencing of more advanced civic opportunities so they can deepen their civic identities. Providing a smattering of disparate and disconnected civic experiences is likely insufficient for reaching more mature civic identity development.

Another implication of this model is the critical importance of helping students connect their civic identities to the larger political contexts of their work. Most students in this study had difficulty discussing the relationships between their civic identity and the political sphere. Even when their experiences were rife with political dimensions, they had difficulty connecting them with issues of power, agency, institutions, laws, and policies. They are not unlike many contemporary college students who have eschewed political involvement for volunteering *(Colby et al., 2007; Long, 2002)*. The perils of divorcing political identity from civic identity are many; most notably, students are unprepared to address structural issues that almost always mediate these civic experiences. Educators who wish to develop civic experiences should look to partner with academic affairs departments such as political science, anthropology, or sociology.

Educators can help further development of civic identity by reframing early involvement experiences (e.g., living in a residence hall, membership in a student organization) as civic involvement. Participants in the study rarely discussed their early involvement as inherently civic, despite prominent civic undertones in their involvement. These early involvement experiences require students to negotiate community norms and practices, interact with diverse people, and make investments of time and energy into their community. These experiences are, of course, undoubtedly and inherently civic, but students fail to recognize them as such. If educators recast these experiences as having civic dimensions, students might better understand the importance of building community, learning from and working with others, and other vital democratic lessons. Recasting these experiences as civic might also help intentionally lead more students into further civic work. When students are part of cohort-based experiences, they have a critical bridge to more civic experiences—when they are not, further civic engagement seems to rely on chance. Students described the happenstance occasions that sparked their involvement in activities leading to civic identity development. Colleen was "lucky" to have been plugged into the civic work taking place at Academy. Vance "tagged along" to a meeting. If the message is clear to students that

early experiences are inherently civic, they may pursue more civic experiences later.

Educators might also consider providing support for students to sort through evolving morality and to negotiate evolving relationships as these arise from increasing civic identity development. Much as students in study abroad have experienced reentry shock *(Wielkiewicz & Turkowski, 2010)*, students whose civic identities became more salient to them experienced evolving friend and peer networks. As their values shifted, so, too, did their peer network. Educators should include space for students to explore these occurrences in their postexperience follow-ups. They might also provide more informal opportunities for students engaged in civic work to meet socially to build their social networks with peers who share similar values.

Conclusion

Given higher education's mission of fostering students' holistic engagement in a democratic society, educators ought to consider the impact of their work holistically, including its impact on an underlying identity construct, civic identity. From this perspective, educators can better understand the cognitive, intrapersonal, and interpersonal development of students along their journeys toward a strong, mature civic identity. This research sought to provide a developmental map of this process as a starting place for educators to think about how students' civic identities evolve. A better understanding of the process will allow educators to design and tailor experiences to promote growth along different positions in the model. Educators should leverage the key influences described in this study to deepen students' civic identities, particularly through more intentionally scaffolded civic experiences; build stronger partnerships with academic affairs to strengthen political and structural understandings of social issues; and develop sustainable communities among students who are involved in civic work.

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Methodological Addendum

Charmaz's *(2014)* constructivist grounded theory aligns closely with my worldview of multiple realities and truths. A grounded theory methodology was used for this study because it is particularly well-suited for investigating a process or trajectory. Additionally, colleagues who have utilized grounded theory to investigate similar developmental progressions influenced this study.

Being able to "stay close" to the data was the biggest strength, meaning significant time was spent with rereading the transcripts, generating codes, piecing them together, and reworking them. Constant comparative data analysis, while time intensive,

helped in the creation of a developmental theory that was close to participants' unique experiences while still creating a usable framework. The biggest limitation was that some nuance was lost in generating a developmental model, which was hopefully mitigated at least somewhat by the narratives.

About the Author

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Shaped by Campus Culture: Intersections Between Transformative Learning, Civic Engagement, and Institutional Mission

Dennis McCunney

Abstract

This ethnographic case study describes how civically engaged students understand their commitment to social change. Literature on civic engagement and service-learning abounds, yet gaps remain in understanding how students understand and act on campus mission and culture with respect to civic engagement. Using the frameworks of transformative learning, emerging adulthood, and civic engagement, this study attempted to understand a subculture of 24 undergraduate students at a Jesuit university. Ethnographic case study methodology was used in order to understand broader context and culture within which this subculture existed. Findings help to further understand how students interact with campus mission and culture relative to civic engagement. Emic and etic themes were distilled into 10 overarching umbrella themes. Implications for future research focus on the intersection of culture, context, and civic engagement at both faith-based and secular institutions.

Keywords: culture, Jesuit, civic, engagement, activism

Introduction

Historically, college and university campuses have been a springboard for civic engagement and activism *(Boren, 2001; Vellela, 1988)*. Particularly during the 20th century, students have made their voices heard about both largescale political and ideological concerns and smaller, more large-scale issues *(Rhoads, 1998)*. Although these movements and high-profile student leaders have helped shape the notion of the socially and politically engaged campus, the causes have varied over the years—from financial aid concerns to civil rights and free speech to divestment movements to human rights causes. Through it all, the context of the university campus has remained a constant *(White, 2016)*. Levels of support from institutional leaders have fluctuated, but university students have consistently led these civic engagement and activist efforts on campuses across the country *(Earl, Maher, & Elliott, 2017)*.

Simultaneously, competing criticisms of the passivity of students and the apathetic, indifferent campus are also present *(Dreier, 1998)*. Other criticisms have questioned the seemingly heroic

depictions of students by each successive generation, particularly when reflecting back on the so-called high watermark of American student activism in the 1960s *(Levine & Carnegie Council, 1980)*. As early as 1970, the American College Personnel Association asserted that, for the sake of dialogue and understanding, "stereotypes of the activist must be avoided, and the distorted pictures created with the mass media should be viewed with skepticism" *(Ellsworth & Burns, 1970, p. 6)*. These conflicting messages—seemingly true and misleading at the same time—highlight the challenges scholars have faced in dealing with student activism as a recurring phenomenon. Authors consistently acknowledge the complexity of the history of student activism and its present-day legacy *(Boren, 2001; Earl et al., 2017; Rhoads, 1998)*.

Interestingly, levels of student activism on college and university campuses have been relatively consistent since the late 1960s *(Levine & Cureton, 1998; White, 2016)*. Data show that students are engaged in working for social and political change and have been for quite some time, both for internal causes that affect a particular campus and for external causes that involve neighborhood and local community concerns, as well as more globally focused social justice concerns *(Quaye, 2004; Rhoads, 1998)*.

More recently, scholars suggest that sustained civic engagement is an appropriate and useful umbrella category and concept that includes traditional understandings of student activism as well as community service, political participation, and advocacy *(Lawry, Laurison, & VanAntwerpen, 2006)*. Civic engagement connotes a range of activities and can be broadly defined as "acting on a heightened sense of responsibility to one's communities" *(Coalition for Civic Engagement & Leadership, 2010, p. 2)*. Civic engagement work focuses chiefly on creating conditions to engage students in "positive social change for a more democratic world" *(p. 3)*. With the emergence of the concept of civic engagement, lines have become blurred between traditional notions of activism and community engagement. Activism has been viewed as resistance to established systems and authority structures *(Boren, 2001)*. Community engagement has been described as working within the system to bring about change *(Colby, Ehrlich, Beaumont, & Stephens, 2003)*. The Carnegie Foundation *(2012)* defines community engagement as "collaboration between institutions of higher education and their larger communities (local, regional/state, national, global) for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity" *("How Is 'Community Engagement' Defined?", para. 1)*. Both activities come together under the broad

heading of civic engagement that emphasizes the educational value of "active democratic participation" *(Ropers-Huilman, Carwile, & Barnett, 2005, p. 296)*.

This study emerged from this milieu of contrasting and conflicting critiques, images, history, and stereotypes regarding students involved in civic engagement, community engagement, and activism. In particular, this study examined the experiences of students involved in civic engagement at a Jesuit university. These institutions are led by the Roman Catholic order of priests known as the Society of Jesus and founded on the principles of Ignatius of Loyola. Known for promoting social change in an educational context, Jesuit institutions are centered on the key principles of service, accompaniment, community outreach, and social justice. Although each institution puts these principles into practice in its own unique way, the essential principles guide the overarching vision of Jesuit educational practice in higher education. Other essential hallmarks of this brand of pedagogy and practice include focusing on the total formation of each individual within the human community, engaging in value-oriented formation of students, creating a spirit of community, encouraging lifelong openness to growth, and showing care and concern for each individual person. Many Jesuit institutions rely on the concept of "the magis"—an aspirational and inspirational notion that roughly translates from Latin to English as "the more universal good"—to describe the spirit of their educational mission *(Geger, 2012)*.

Conceptual Framework

The framework used in this study included several elements: what happens (transformative learning), when it happens (emerging adulthood), how it happens (civic engagement), and why it happens (Jesuit educational pedagogy and practice). These theories shed light on the role of culture as related to campus mission. The theories overlapped and highlighted the interrelationships between the process of student learning, the individual and developmental context of student learning, and the types of learning activities in which students engage. These three concepts and theories are built on the ground of Jesuit educational pedagogy and practice. The culture in which students found themselves was a critically important component to this study, for it forms the foundation on which students grow, develop, and engage in transformative experiences.

Methodology, Data Collection, and Discussion

Undergraduate student participants were selected by purposeful sampling and invited to participate in ethnographic interviews. The transcripts from these 24 interviews were compiled and coded, with both preset and emergent codes utilized *(Gibbs, 2007)*. Several recurring themes emerged. The majority of these themes were emic, pulled directly from the student stories and voiced by the students themselves. Common terms and phrases emerged that reflected the students' common experiences on campus. The collection of themes was compiled into a broad grouping. Both emic and etic themes were reduced to one-word summary categories in order to capture the students' sentiments. These one-word summaries were then grouped into even broader categories. Global themes such as religion, passion, privilege, questioning, justice, and perspective emerged. The one-word themes were tallied, and the top 10 categories were used to identify the most salient and recurring sentiments shared by the students (see Table 1).

Table 1. Most Frequent One-Word Summaries

One-Word Themes	Number of Occurrences
Perspective/Exposure	11
Insight	6
Church/Spirituality	5
Passion	5
Peers/Community	5
Reflection/Depth	4
Authenticity	4
Presence	3
Mentorship	3
Growth	3

A composite profile of a civically engaged student on campus emerged from this process. In addition to essentially serving as a heuristic construct, the profile brought together the most common themes voiced by the collection of students in this study. The individual narratives preserved the uniqueness of each student's story, and the composite profile served as an attempt to piece together the commonly shared elements of student experiences. In a sense, the profile attempted to highlight the essence and ethos of the culture according to the most commonly expressed sentiments. The profile streamlined the student experiences and pinpointed the most

salient parts of the campus culture. It was both a compilation of pieces of the student narratives and a new narrative altogether, a type of ethnographic or speculative fiction to help further describe the context. Numerous key themes emerged from the student narratives, including a strong commitment to specific Jesuit values like solidarity with marginalized communities (which, for some students, seemed to qualify and modify traditionally taught Roman Catholic values), a strong awareness of unearned racial and economic privilege, the value of asking critical questions of authority figures and systems, and the importance of articulating one's deeply held values in order to maintain consistency and authenticity.

Significance for Theory, Research, and Practice

A wide range of literature on civic engagement exists, in which engagement is described as anything from a valuable learning tool to a source of campus unrest *(Boren, 2001; Vellela, 1988)*. Relatively few studies have examined the interplay between students and overall campus culture. The perspectives and lived experiences of actual students who were civically engaged in a sustained way helped advance understanding of this as a cultural phenomenon. Descriptions of culture are always limited when offered by external observers. This study gave voice to campus culture through the eyes of students and their privileged perspectives as insiders. And, as the key themes underscore, these students played two roles—as agents within the culture helping to shape the experiences of other students, and as individuals who were shaped by the cultural environment. Through their narratives, the students articulated some powerful—and rather mature—personal learning and overall transformations. Further, this study offered contributions to existing theory on service-learning and experiential learning *(Kolb, Boyatzis, & Mainemelis, 2001; Miettinen, 2000; Moon, 2004)* by broadening the conversation to include student self-understandings, the role of campus mission, the influence of student subcultures, and the language of transformative learning theory and perspective transformation. The uniqueness of an ethnographic case study provided an opportunity to focus on the nuances in the life of an institutional subculture. The subtleties of the student narratives also helped put these larger institutional values into perspective, showing how they "came to life" in the daily realities of engaged students. The findings and discussion from this type of examination could be transferable to other mission-based institutions, including religiously affiliated institutions and institutions with community engagement missions.

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Methodological Addendum

This dissertation utilized an ethnographic case study as its methodology. Since the study examined questions about culture on a university campus, an ethnographic approach was deemed to be the best way to understand context, interactions, and overall meanings ascribed to these activities. With limited time and resources to complete the dissertation, using the ethnographic case study model served the study well. I was able to incorporate ethnographic means of data collection (participant observation, contextual interviews, document analysis) and analysis (domain analysis, emic and etic themes and codes, composite sketches) and apply them to a specific, time-limited case. This methodology, however, still required a significant investment of time, particularly when analyzing the data. Overall, these research tools were incredibly useful in my effort to reliably represent a specific culture.

About the Author

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A Retrospective Study of a Scientist in the Classroom Partnership Program

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Abstract

The Scientist in the Classroom Partnership (SCP) is a unique, long-term program that partners STEM fellows with K-12 teachers. The SCP was adapted from the original NSF GK-12 model, with fellows and teachers working in the summer and academic year to build their partnership and design and coteach inquiry-based STEM curricula. The current study is a retrospective investigation of the first 10 years of the program to determine the impacts on university fellows and K-12 teachers and the implications for students in the participating classrooms. Results from surveys and focus groups showed that fellows gained communication, mentoring, and pedagogical skills and served as role models for students. Teachers gained STEM content knowledge, increased use of inquiry, and greater confidence in teaching science. The SCP represents an innovative model that enhances hands-on and inquiry-based teaching and learning of science through a unique partnership that brings together the university and K-12 systems.

Keywords: scientist, teacher, coteaching, partnership

Introduction

A major reform effort under way in U.S. schools is to better prepare students for jobs demanding STEM expertise. Most experts agree that meeting this goal calls for an emphasis on exciting students about STEM in early to middle grades to encourage them to choose STEM majors in college and ultimately enter STEM careers (*Maltese & Tai, 2011*). However, as reported recently by the U.S. Congress Joint Economic Committee (*2012*), too many students do not have access to quality STEM education and lack the interest and ability to enter or continue along the STEM pipeline. According to Bureau of Labor Statistics projections, STEM jobs alone will grow 17% between 2008 and 2018, much faster than the 10% growth predicted for all other job areas (*Vilorio, 2014*). In addition, the growing demand for STEM skills in jobs outside traditional STEM fields will further complicate this need (*U.S. Congress Joint Economic Committee, 2012*). Most agree that innovative strategies are needed to engage students at an early age so they are prepared with solid skills to enter STEM pathways.

At the same time that K-12 districts are looking for ways to excite students about STEM and enhance STEM literacy, increasing numbers of Ph.D. candidates in the STEM fields are choosing nontraditional careers rather than the typical route toward academic research positions (*Fuhrmann, Halme, O'Sullivan, & Lindstaedt, 2011; Laursen, Thiry, & Liston, 2012; Thiry, Laursen, & Loshbaugh, 2015*). According to recent reports, less than half of STEM doctoral students are employed in traditional faculty research positions (*Austin, 2013; Denecke, Feaster, & Stone, 2017; Kulis, Shaw, & Chong, 2000; National Science Foundation & National Center for Science and Engineering Statistics, 2012*). A recent study from the American Institutes for Research emphasized that there must be a "national effort to prepare more students for educational and career success in STEM by improving teaching and providing all students with the 21st century skills needed to thrive in the global economy" (*Turk-Bicakci, Berger, & Haxton, 2014, p. 1*). Several studies have found that STEM Ph.D. students are particularly interested in teaching and are more likely to express an interest in further training in this area than their peers in other disciplines (*Cyranoski, Gilbert, Ledford, Nayar, & Yahia, 2011; Shea, 2013; Stowell et al., 2015; Trautmann & Krasny, 2006*). However, much of the teaching experience that falls to graduate students is in the form of teaching assistantships, an approach that usually provides little if any actual training in the pedagogy of teaching (*Golde & Dore, 2001; Nyquist et al., 1999*). Additionally, many departments that have minimal interaction with university undergraduates provide essentially no opportunities for teaching. As Ph.D. students enter their careers—in traditional or nontraditional fields—most will require at least some teaching ability (*Meizlish & Kaplan, 2008*).

National leaders have called on STEM professionals to assist in the reform of STEM literacy and contribute to improving the quality of science education at the K-12 level (*Alberts, 1991; Colwell & Kelly, 1999*). In response to these calls, federal funding agencies have incorporated these efforts into their grant award mechanisms, and universities have begun to develop programs that partner K-12 classrooms with scientists and engineers (*Sparks, 2017*). The NSF-funded GK-12 program represented a convergence of these areas to provide a system in which graduate students are rewarded for their service to enhancing science literacy while gaining essential teaching, communication, and mentoring skills during the completion of their graduate training. As Laursen et al. (*2012*) have stated, "the intent was not just to support the education of individuals, but to have lasting institutional impact on both university–community

collaboration and STEM graduate education" (*p. 49*). The resulting GK-12 program brought together three important groups in K-12 classrooms: scientists who could share their science content, research, and inquiry skills while acting as important role models for students; teachers who could provide pedagogical and classroom expertise; and students eager to engage in exciting STEM learning (*Mervis, 1999*). It has been suggested that these scientist–teacher partnerships have great potential to positively impact science learning and instruction at the K-12 level, with each partner contributing specific skills and expertise with the ultimate goal of improving the teaching and learning of science in the classroom (*Caton, Brewer, & Brown, 2000; Loucks-Horsley, Love, Stiles, Mundry, & Hewson, 2003*). The GK-12 program as designed by the NSF provided the exact model that allowed for building effective scientist–teacher partnerships.

In 2006, the NSF contracted with Abt Associates to conduct a comprehensive study of the GK-12 program to determine the impact on fellows' graduate school experiences and their career trajectories, and to describe teachers' perceptions of the resources provided by the fellows and the influence of the GK-12 projects on students and schools (*Gamse et al., 2010*). From a study of 865 former fellows the Abt study concluded that the program was "implemented and experienced as intended" *(p. ii)*. Interviews with teachers indicated that they spent more time teaching science, were more comfortable with the science content, and felt an enhanced collegiality toward other science teachers. Fellows reported that they gained important in-depth learning and understanding of science, providing them with the skills to present science to a broader audience. Further, in support of a report from the Council for Graduate Schools recommending that universities include a core set of skills in graduate education (*Denecke et al., 2017*), fellows felt their communication skills had improved and they were better prepared for the job market upon graduation. An interesting outcome of this study was the finding that program participants felt that a major contribution of the science fellows was their ability to act as "catalysts" for change.

In 2010, the NSF discontinued the GK-12 program, stating that the program "has been effective, but much of it is now being done by other programs" (*Mervis, 2011, p. 1127*). In 2012, only 19 of 188 funded sites had sustained in-class programs (*Ufnar, Kuner, & Shepherd, 2012*). Many of the funded sites discontinued their partnerships due to lack of sustainability plans. One of the original grantees has not only continued the scientist–teacher partnership

model but has sustained the program for over 17 years. The program in its current form—the Scientist in the Classroom Partnership (SCP)—was adapted from the original NSF-funded program and places graduate students or postdoctoral fellows (both referred to as fellows) in classrooms to coteach with a partner teacher for one full day per week for the entire academic year.

During the first 7 years of the SCP program (during NSF funding), the basic program components included the academic year in-classroom coteaching for 2 days per week, a 4-week summer pedagogy and planning workshop for fellows and teachers, a bimonthly seminar for fellows, and two 1-day retreats for fellows and teachers during the academic year. In 2007 the program transitioned to the current SCP program, with several modifications that lowered the cost of the program and the time commitment required of fellows (Table 1). Four core components of the original GK-12 program were maintained in the SCP, including a 2-week summer workshop, the in-classroom coteaching by fellow–teacher teams (1 day per week), a monthly seminar for the fellows, and two 1-day retreats for further planning and reflection by fellow–teacher teams. The primary focus during the workshop was to pair the fellow with their partner teacher and provide time for planning for the upcoming 30–60 days in the classroom. Fellow–teacher teams worked with the program coordinator to develop coteaching strategies for the classroom. The goal at the end of the workshop was for each team to have their schedule of lessons planned for the upcoming year, matched to the curriculum and standards for the specific grade and subject that would be cotaught. Teams were also trained to use hands-on science kits provided either through the districtwide Hands on Science (HOS) kit program or by a student volunteer organization at one of the participating universities (*Joesten & Tellinghuisen, 2001*). During the academic year, fellows assisted teachers in implementing these curricula in the classrooms.

The current study examined the first 10 years of the GK-12/SCP program to determine the primary programmatic outcomes that led directly to long-term sustainability and integration of the SCP program into the STEM reform efforts of the partner universities and school district. The results showed that through this program effective partnerships were formed between university fellows and K-12 teachers that were built on their respective strengths and skills, with teachers providing critical pedagogical and classroom management knowledge coupled with the content and inquiry expertise of the fellows. Several key themes emerged from this research that support the SCP as a successful model both

for connecting university scientists, K-12 teachers, and students to enhance the teaching and learning of STEM and for contributing to STEM reform at the K-12 level.

Table 1. Programmatic Changes in Transition from the GK-12 to SCP Program

		GK-12 2000-2007	SCP 2007-2009
Program Components	In-classroom coteaching	2 days per week	1 day per week
	Summer workshop	4 weeks	2 weeks
	Fellow Seminar	Bimonthly	Monthly
	Education coursework	Required (2000-2002) Optional (2003-2007)	Optional
Participants	Scientists	Graduate Students	Graduate students and postdoctoral fellows
	Teachers	Grades 5-12	Grades 5-8
Stipends	Scientist	$25,000-30,000	$5,000-7,500
	Teachers	$3,000-4,000	$1,000-1,500
Funding		NSF	School district plus universities

Methods

SCP Program Participants

Participants in this study included 83 former and current fellows and 74 former and current middle and high school partner teachers. The fellows were graduate students or postdoctoral fellows from a majority of the different STEM disciplines from four partner universities in the mid-South: a private Research I institution, a private minority-serving medical school, a historically Black state university, and a historically Black private university. The partner teachers were all employed by a large urban public school system with approximately 70,000 students, 5,000 teachers, and 130 schools. University faculty from science and education departments served as co-PIs. Program staff included a full-time program coordinator who was a former teacher, part-time liaisons/coordinators at each university, and a part-time program evaluator. The participation of one PI and two program coordinators for the entire duration of the project provided significant continuity during the 10-year period of study.

Fellows were placed with partner teachers in schools with varying levels of achievement, with the focus primarily on high-needs schools. The goal was to combine the needs of the schools, students, and teachers with partnerships that would provide teaching and pedagogical skills for the fellows and professional development for the teachers. Over the 10-year period of the study, teams were placed in 27 middle schools and five high schools. In 22 of the middle schools, more than 50% of the student populations received free or reduced lunch. The majority of schools participated for 1–2 years, with the longest time of participation at 7 years.

Fifty-one percent of the fellows were from minority populations underrepresented in STEM. The majority of fellows (61/84; 73%) were doctoral candidates, four students were still in a degree program, five participants were postdoctoral fellows, and 13 were in master's programs. Based on the large pool of postdoctoral fellows in STEM disciplines at the participating universities and their interest in gaining additional teaching experience, these fellows were added to the program in 2007.

A total of nine high school and 65 middle school teachers were recruited by the program coordinator in collaboration with the school district science coordinator, with a focus on those teachers who had strong classroom management skills. The majority of teacher participants taught seventh and eighth grade general science and eighth grade physical science. The teacher participants were predominantly female (74%) and White (70%), percentages in close agreement with results from other GK-12 programs *(Gamse et al., 2010)* and similar to estimates of the demographics of public school teachers in the United States at large, with 83% White and 75% female (*Feistritzer, 2011*). Among participating teachers, 46% had a master's degree in education, 29% had a terminal bachelor's degree, and 21% had a master's degree plus more than 30 hours of additional graduate credit. Less than 3% held a doctorate or Ed.S. degree.

Data Sources

Participant information form. Three primary sources of data were used for the study. First, information forms were designed to collect baseline data from program participants. A total of 92 fellows and teachers completed the form (Table 2). Participants provided basic information, including contact and demographic data, academic experience and degrees earned, employment information, teaching background (teachers), professional development

activities (teachers), and involvement in outreach to K-12 schools (fellows).

Table 2. Fellow and Teacher Participant Response Rate

	Fellows	Teacher	Totals
Included in study	83	74	157
Consented	64	49	113
Survey completed	56 (67%)	37 (51%)	93 (60%)
Information form completed	50 (60%)	42 (58%)	92 (59%)
Invited to retreat	50	37	87
Attended retreat	39 (78%)	26 (70%)	65 (75%)

Participant survey. A total of 93 fellows and teachers completed an online or paper survey (Table 2). This high number of respondents (60%) was an important factor in conducting a robust study of participant impressions of the impact of the SCP program (*Fincham, 2008*). The survey consisted of Likert scale ratings, rankings, and open-ended questions that were adapted from instruments used during the first 10 years of the program and were designed to target issues regarding participant perceptions of the program experience as well as longer term impacts. To further refine the surveys, a pilot survey was completed by three fellows and three teachers who were in the 2010–2011 SCP program, and two follow-up interviews were conducted with one teacher and one fellow from this group. Based on feedback from their survey responses and interviews, the survey was modified, and the final survey was deployed in March 2011 to consented participants.

Both fellows and teachers were asked a series of general questions about their participation and were asked to rate each program component and the nature of the classroom instruction by fellow–teacher teams. The two groups were asked a series of open-ended questions, including: what was the most successful or most valuable part of the program; what was unique in the classroom; and what was one thing that could be changed about the program? Responses on the Likert scale questions regarding who strongly agreed or strongly disagreed on a scale of 5 to 1 were tabulated and analyzed.

Participant retreat. A 1-day retreat at the lead university hosted 65 participants from across the country (39 fellows and 26 teachers). This retreat was designed to bring together fellow–teacher teams who had cotaught in middle school classrooms to reflect on their past experiences in the program. In a series of focus

groups, fellow–fellow, teacher–teacher, or fellow–teacher pairs were asked to discuss a series of prompts: such as, "what worked well; what didn't work; and what were critical challenges in your partnership?" Each group then came together to discuss themes that emerged from the conversations and take notes in response to questions on flip charts. Discussion points from each focus group were recorded, and the responses were transcribed for coding analysis (described below).

Coding Analysis

Qualitative analysis was used to develop a coding framework from themes that emerged from the survey short answers and focus-group transcripts (*Braun & Clark, 2006*). Two researchers collaboratively developed a preliminary scheme to capture each primary and secondary emergent theme from all data sources. Two authors randomly sampled 10% of the data set to test the coding scheme. The scheme was created and refined by categorizing participant comments, adding categories when emergent themes were not captured, and eliminating or collapsing categories when instances were extremely rare or it was difficult to make reliable distinctions between categories. After coders achieved over 80% agreement, the scheme was judged to be stable. Five primary themes emerged from this analysis, with a number of secondary categories within each primary category as shown in Table 3. Through fine-grained analysis, secondary categories were further subdivided into tertiary categories. This final analysis was conducted by examination of open-ended survey questions and focus group responses. The interrater reliability for the coding using the tertiary categories was greater than 85%, with 138 open-ended survey responses and 159 focus group responses analyzed.

Table 3. Coding Scheme Developed for Analysis of Data Sources

1⁰ Code	2⁰ Code	3⁰ Code	Description
Program Model (PM)	Program component (PC)	Summer workshop/ planning	Participants refer to the program as a whole or to a specific component of the program
		Hands-on science	
	Program challenge (PCH)	Fellow-teacher relationship	Participants describe some obstacle or difficulty that was a part of the program or was an issue for them during their participation
		Planning/reflection	
		Scheduling/pacing	
		Materials	
		Teacher quality	
		Fellow quality	
		Content knowledge	
Partnership (P)	Fellow brings resources (FR)	Materials	The fellow brings materials, research experience, specialized knowledge, and/or lessons based on real research to the partnership
		Extra hands	
		Content knowledge	
	Teacher bring resources (TR)	Classroom management	Teacher brings knowledge of classroom management, pedagogical techniques, and/or understanding of student dynamics and needs to the partnership
		Pedagogical knowledge	
	Classroom collaboration (CC)	Coteaching	The teacher of fellow describes the value of their partner as a mentor or colleague, the importance of mutual respect,or how they learned from their partner
		Classroom relationship	
Inspiration (I)	Role model (RM)		The fellow is a role model for the students
	Student enthusiasm (SE)		The teacher or fellow describes a positive reaction among students due to program participation
	Renewal(R)	Balancing roles	The fellow or teacher describes how the program encouraged them to face challenges such as a burnout, isolation, lack of direction, or complacency in teaching methods
	Opportunities for children (OC)	School schedules	The fellow or teacher expresses a desire to provide opportunities for his or her students
Challenges (C)	Fellow challenges (FC)	Adaptability	The fellow describes difficulties arising from the graduate student experience
	Teacher challenges (TC)	Classroom management	The teacher expresses difficulties he or she has with the teaching profession

Insights (IS)	Fellow teaching (FT)	Pedagogical knowledge	Fellows describe how they learned about teaching or gained teaching experience through the program
		Adaptability	
		Content knowledge	
	Teacher professional development (TPD)	Content knowledge	The teacher describes how participation impacted his or her teaching, content knowledge, connection to the science/science education community, or confidence
		Pedagogical knowledge	

Confidentiality of Data

All participants in the study were consented through procedures approved by the lead university Institutional Review Board. All 83 fellows and 73 of the 74 teachers were located through a combination of Internet research, social media, and contact through former PIs or colleagues. Fellows and teachers were sent a letter and/or e-mail to request their participation in the study, clearly outlining the goals of the study. Of the original total of 157 participants who were contacted, 113 (72%) consented to participate in the study (Table 2). One participant was deceased, two fellows did not wish to participate, and the remainder (16 fellows and 24 teachers) did not respond or did not complete the process. Consent documents were scanned and maintained on a password-protected server. All paper records were maintained in locked file cabinets. Electronic files were kept on a secure server maintained by the lead institution and password protected.

Results

Likert Scale Survey Results

As shown in Table 4, fellows (F) and teachers (T) strongly agreed that use of hands-on science in the classroom was an important component of the program. This finding reinforces one of the primary goals of this program: to insert a scientist into the classroom to assist the teacher in increasing the time spent each week on inquiry/hands-on science. Fellows and teachers also agreed that getting to know their partner and the in-classroom partnership were important to create a strong relationship that would result in

effective coteaching. Flexibility in scheduling was also valued by both in order to adapt their schedules to changing university and school district schedules. The greatest difference in responses from teachers and fellows was in the categories of planning for the year during the summer workshop and planning during the academic year. Fellows constantly felt time pressures and expressed difficulty in balancing responsibilities in the lab and the time required to complete the SCP program requirements (i.e., planning outside the classroom and attending the 2-week workshop). Overall, even with minor differences in answers between fellows and teachers, the overwhelming response was positive for all categories, and all participants strongly supported the SCP program components. The responses did not differ over the years: Fellows in Year 1 when the program was just starting still felt as strongly positive as the fellows in the mature SCP program in later years.

Table 4. Likert Scale Results of Impact of SCP Program on Participants

Question	Percent Responses									
	5: Strongly agree		4: Agree		3: Neutral		2: Disagree		1: Strongly disagree	
	F	T	F	T	F	T	F	T	F	T
Getting to know my teaching partner	88	88	8	12	0	0	4	0	0	0
Using hands-on teaching in the classroom	77	88	21	12	2	0	0	0	0	0
Teacher/Fellow partnership in the classroom	78	82	18	15	4	0	3	0	0	0
Planning lessons for the year	53	91	31	9	8	0	8	0	0	0
Flexibility in scheduling	70	79	24	18	6	3	0	0	0	0
Learning inquiry teaching strategies	58	76	38	21	4	3	0	0	0	0
Planning and revising lessons during the school year	44	74	41	24	15	2	0	0	0	0
The summer workshop	36	74	47	23	11	3	6	0	0	0
Flexibiity in choice of science activities	61	63	27	31	7	6	5	0	0	0

Fellow and Teacher Open-Ended Survey Question Responses

Results of coding analysis of open-ended survey questions are shown in Figure 1. In response to the question about the most valuable or successful part of the program (Figure 1A), both fellows and teachers overwhelmingly named implementation of hands-on sci-

ence activities in the classroom as the number one component. As one teacher commented, "The most valuable part was the hands-on learning! Kids learn so much more by doing than the same old textbook." Also highly ranked by all participants were the relationships between partners in the classroom and the opportunities that the program provided for students. One fellow wrote, "The most valuable component of the program was the relationship established between the fellow, the teacher, and the students." Another participant stated that the most valuable component was the "early exposure of advanced science projects for young students (the students really became engaged with the more hands-on experience)." Teachers found value in the content knowledge that fellows brought, as well as in simply having an extra adult in the classroom. Although it increased the fellows' time commitment, fellows as well as teachers gave the summer workshop high ratings. Fellows also noted that their gain in pedagogical knowledge was important for strengthening their teaching skills for future careers.

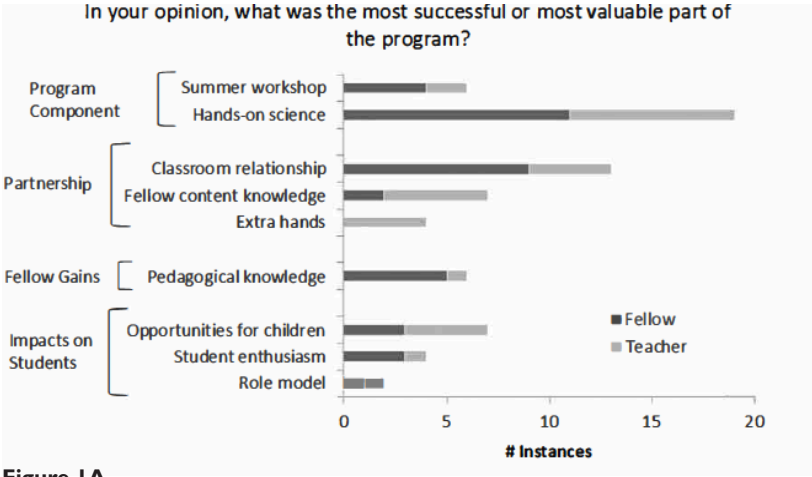

Figure 1A.

Regarding what was unique in the classroom (Figure 1B), again both fellows and teachers named hands-on science as the top category. Example comments included "We would not have nearly as many hands-on science activities had I not had a fellow in the classroom" and "The students were taught skills through hands-on experience that I did not have the content knowledge to teach by myself." Opportunities for children and student enthusiasm were

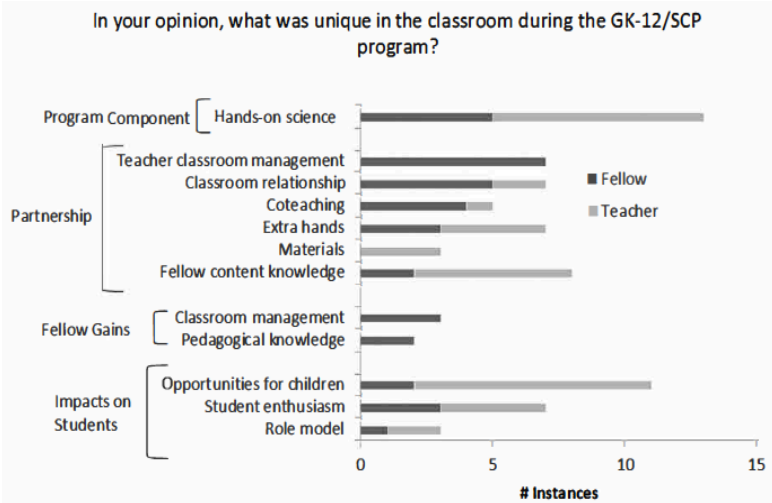

Figure 1B.

also ranked highly (especially by teachers). Fellows commented that the classroom management skills that teachers brought were essential, as well as the classroom relationship and coteaching between fellows and teachers: "The classroom management was great and would have possibly been a challenge if it were not for the partner teacher." The resources that fellows brought were regarded highly by teachers, including their science content knowledge and "extra hands" (for managing hands-on activities).

Fellows and teachers also responded to the question "What is one thing that could be changed about the program?" Almost all the responses (84%) related to program components. Six fellows and 12 teachers suggested that the program should be expanded. For example, several fellows commented that the program could be expanded to other universities. Other suggestions included expanding the professional development time for fellows and increasing the availability of hands-on science kits. Only five of 39 fellows stated that the time commitment was a challenge: "the time needed to participate . . . interfered with research." Three of 26 teachers mentioned that they would have wished to be involved in the pairing of fellows and teachers. Five participants simply stated that nothing needed to be changed: "I really enjoyed the program."

At the end of the survey, participants were asked to provide any additional comments. A total of 24 fellows and 13 teachers provided comments in this section. Over 90% of the responses were highly positive about the program. One second-year teacher wrote, "I cannot say enough about how valuable and needed this program

is. . . . the program made what could have been an extremely difficult year into a very rewarding and fun one for both me and my students." Another teacher in her tenth year stated, "This program is amazing. . . . My organization and planning skills have greatly improved. The lessons we are given time to develop in the summer are well thought out and meaningful." A fellow currently on the faculty at a small college responded:

> Without a doubt this program was the most influential and important experience of my professional life. The skills that I learned (teaching, classroom management, time management, knowledge of resources, etc.) were invaluable. . . . This program simply changed my life.

Another fellow in a university faculty position stated:

> This was the single most effective training I have had in my entire career on how to be a good teacher. Were it not for this program, I honestly feel I would not be an effective teacher, but instead would have been 'one of those professors who can do research but doesn't know how to teach.' It truly was among the most positive and fulfilling years of my life.

Focus Group Analyses

Each focus group at the 1-day retreat was given approximately 45 min to record their responses to two questions on flip charts. The responses were then coded as described in the Methods section. In response to "What worked well" (Figure 2A), comments from fellows-only groups (dark bars) most frequently cited hands-on science, the summer workshop, the classroom management that teachers provided, and the coteaching that occurred in the classroom. One fellow commented that what worked well was the fellow–teacher dynamic in the classroom. Comments from teachers-only groups (light bars) mentioned the workshop, the fellow providing "extra hands" in the classroom, and the coteaching in the classroom. One teacher stated that what worked well for her was the "blending of teaching strategies (metro teacher) and scientific knowledge (fellow)." Groups with both fellows and teachers (medium bar) emphasized hands-on science, the workshop, coteaching, and the classroom relationship. It's interesting to note that by far the highest ranked category was coteaching, and

when fellows and teachers were together as a group, this category was mentioned the most.

In the category of challenges and barriers (Figure 2B), fellows mentioned both teacher quality and the fellow–teacher relationship as a challenge. As one of the comments emphasized, "A mutual respect and base understanding of the roles for the partners is necessary. When two members do not align behind this idea, class-

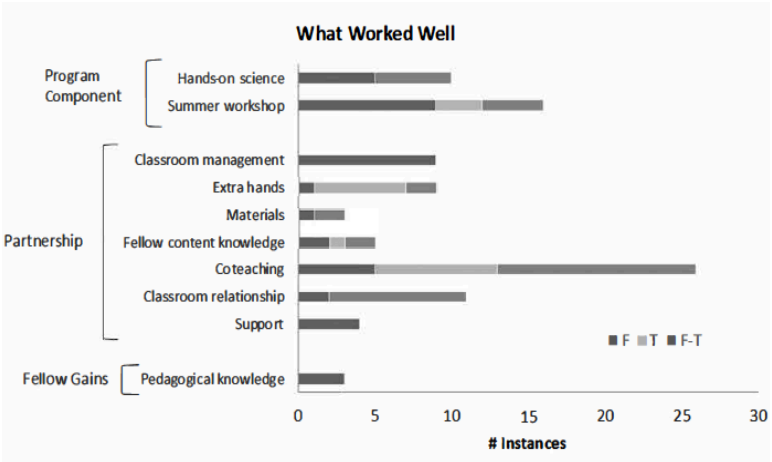

Figure 2A.

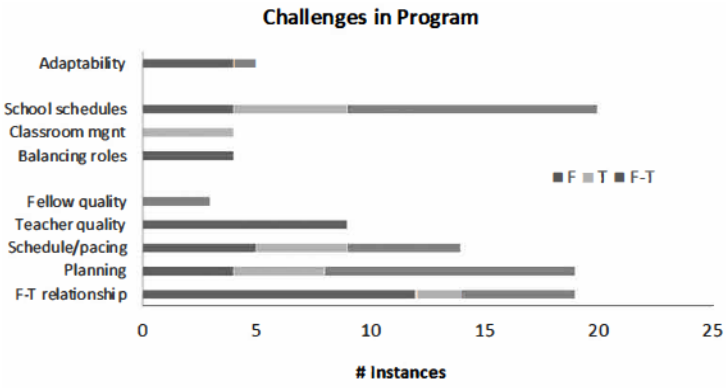

Figure 2B.

room lessons suffer." Another comment stated, "If the relationship between the fellow and the teacher isn't conducive [to learning],the co-teaching suffers." Fellows and teachers both commented that school schedules, scheduling, and instructional planning at the school level were by far the biggest challenge. After spending 2

weeks in the summer to plan a year's activities, often there had to be adjustments to allow for snow days, testing, school events, and so on. Fellows also commented that balancing their time was a challenge; they were trying to complete their laboratory responsibilities while also teaching for 1–2 days in a secondary classroom.

Discussion

This study is the first to examine the impact of a long-standing, sustained scientist-in-the-classroom program derived from one of the first NSF-funded GK-12 projects. This program has not only continued for over 17 years but has created a remarkable partnership that has had far-reaching impacts on students, teachers, and scientists. In examining the beliefs and attitudes of almost 100 participants over 10 years, results have supported the many conference proceedings and research studies in the literature showing incredible impacts on students, teachers, and scientists. The current study goes beyond these findings to examine this long-term intervention strategy and its impacts on student, teacher, and fellow participants. Through surveys and focus groups involving over 80% of the 157 teachers and fellows who participated from 2000 to 2009, a clear picture has emerged demonstrating the positive impacts of placing a scientist in a middle school classroom and how this program can transform the lives of the teachers, fellows, and students.

The Value of Scientist–Teacher Partnerships in the SCP Program

The value of the partnership formed between scientists and educators was highlighted by both fellow and teacher participants as one of the most important features of the SCP. These partnerships were formed through intensive summer workshops with continued development during the in-classroom coteaching. Several partnership themes were mentioned by participants in the focus groups:

- The collaboration between the teacher and the fellow, combining strengths from both parties, creates a unique experience for students.
- Building off each other's strengths leads to something bigger than the sum of the parts.
- Collaboration led to the sharing of each other's expertise: teachers gained confidence in content and fellows gained confidence in teaching.

- Ultimately the success of the program depends on the strength of the relationship between the teacher and the fellow. If the relationship is mutually respectful with admiration then many problems and issues are resolved.

Both scientists and teachers brought specific strengths and needs to the development of the SCP partnerships. Scientists brought their depth of content knowledge as well as an understanding of scientific research and inquiry. Teachers brought their understanding of pedagogy, the challenges facing at-risk students, classroom management techniques, and how to make the science content understandable to a diverse audience. Activities in the summer workshop focused on helping the teachers understand university-level science through research talks by the fellows and visits by teachers to their partner fellows' laboratories. During the workshop and academic year, teachers helped the fellows learn how to unpack the science content knowledge in lesson planning and understand the challenges encountered in urban K-12 classrooms. The summer workshop and academic year provided over 200 contact hours for building successful partnerships between fellows and teachers. As a result of the partnerships developed during the SCP program, teachers gained confidence in teaching using inquiry while strengthening their content knowledge, and fellows gained teaching skills. One middle school student commented, "The best thing about having a GTF [fellow] in my science class this year was learning in an interesting way. They made learning about things that were unknown to me fun." A participating teacher stated:

> I have more confidence in the way I teach. I always tell students that I am learning the same way that they learn when we are in the classroom. We learn by doing. A lot of times when the students are doing, I am doing as well.

A fellow responded that the value of the partnership was "teaching me, the fellow, to teach in a real-world situation."

Effective scientist–teacher partnerships are challenging at best to create, involving far more planning and preparation than simply walking into the classroom on Day 1 and "teaching" (*Caton et al., 2000*). A successful and productive scientist–teacher partnership must be built on trust, with an understanding of the needs and strengths of all partners, continual open communication, and a definition of specific roles and responsibilities for all partners (*Gomez, Bissell, Danziger, & Casselman, 1990; Hall-Wallace & Regens, 2003; Moreno, 2005; Sussman, 1993; Tanner, Chatman, & Allen, 2003*).

In addition, scientists and teachers work in very different environments, with different expectations, vocabularies, knowledge, and behaviors. For example, scientists who work in research laboratories without significant teaching responsibilities may have little understanding of the K-12 world. Similarly, teachers may have little or no experience with the content and research base of university-level science (*Tanner et al., 2003*). As a result, there can be a mismatch between the professional practices of scientists and K-12 teachers (*Moreno, 2005; Tanner et al., 2003*). Resolving these differences between the worlds of the scientists and teachers is essential for the development of effective partnerships (*Caton et al., 2000*). The current study showed that the SCP program was successful in creating and maintaining mutually beneficial partnerships between K-12 teachers and university scientists. Both teachers and fellows indicated a greater understanding of their partners' strengths and challenges, and that the partnership-building experiences within the SCP program led to the development of lifelong friendships between the teachers and fellows. As one fellow stated, "The most valuable component of the program was the relationship established between the fellow, the teacher, and the students." A teacher underscored the importance of the partnership with the comment that "the most important component of the program was the teacher/fellow partnership in the classroom."

What Fellows Bring to the Partnership

Results from the current study as well as a number of other scientist–teacher partnership models have suggested that scientists play a variety of roles in the classroom to enhance inquiry-based STEM learning, including STEM expert, a resource for materials and curriculum enrichment, and STEM role model (*Bledsoe, Shieh, Park, & Gummer, 2004*). The importance of the fellows' roles in the SCP was highlighted in the current study, in which their contributions were acknowledged as critical components for the success of the program. Fellows brought their training as researchers to assist teachers in engaging students in "authentic science" using hands-on, inquiry-based labs (*Barab & Hay, 2001*). Most researchers agree that learning science through an inquiry approach not only increases student achievement in STEM but also promotes a positive attitude toward STEM studies. In a recent study, Blank (*2012*) reported that aggregated state and national data showed that more time spent on science correlated with higher National Assessment of Educational Progress (NAEP) science scores and that more frequent use of hands-on science resulted in higher NAEP scores

(*Blank, 2012*). Additional studies have provided further evidence that the frequency of hands-on experiences is strongly related to science achievement (*Ruby, 2006; Stohr-Hunt, 1996*). In addition, teachers report that performing hands-on activities in their classrooms results in more students scoring at or above basic on the NAEP assessment (*O'Donnell, 2007*). Extending hands-on by integrating the "development of understanding through investigation, i.e., asking questions, determining appropriate methods, gathering data, thinking critically about relationships between evidence and explanation, and formulating and communicating logical arguments" can be a powerful strategy for changing how students learn science (*Marshall, Horton, Igo, & Switzer, 2009, p. 591*). As stated by Bower (*2005*), fellows bring the "real scientific skills of investigation, critical thinking, imagination, intuition, playfulness, and thinking on your feet with your hands that are essential to success in scientific research" (*"What Can I Do," para. 5*). With the addition of appropriate preparation to understand the K-12 community and science classrooms, the fellows can easily apply these skills to any area of science (*Bower, 2005*).

Despite the growing consensus that inquiry-based teaching is critical to building STEM knowledge and skills, the implementation of inquiry instruction in middle school classrooms remains a challenge (*Trautmann & MaKinster, 2005*). Two hands-on science programs available through the lead institution and the school district assisted the fellow–teacher teams in implementing inquiry instruction in the classroom. The kits that were provided not only served as important curriculum enhancement and activities but provided a framework for building fellow–teacher partnerships in the summer workshop as teams worked together to integrate the kits into the grade-specific curriculum. Students therefore experienced at least 1 day per week when fellows cotaught inquiry-based lessons with the teachers.

One theme to emerge from our analysis was the important role fellows played as role models for students who may have little idea of who can be a scientist and who scientists are (*Bledsoe et al., 2004; Bruce, Bruce, Conrad, & Huang, 1997*). This outcome may have been attributable in part to the composition of this group of fellows: 51% were from populations underrepresented in STEM careers. Since the classrooms served in the SCP have a high percentage of underrepresented minority students, these fellows likely provided models of successful minorities who had entered graduate-level STEM programs and were on their way to pursuing a career in a STEM field. Echoing our findings, in the Abt study of the GK-12

program, teachers reported that the greatest impact of their GK-12 experience was the positive effect of fellows on the students' perception of STEM professionals (*Gamse et al., 2010*). These young scientists are also still developing their own understanding of inquiry through their research, making them even more empathetic toward the successes and failures of research-based science *(Gengarelly & Abra, 2009)*. As stated by Cacciatore and Sevian (*2011*), "STEM education is most successful when students develop personal connections with the ideas and excitement of STEM fields" *(p. 248)*.

What Teachers Bring to the Partnership

One goal of the current study was to examine the efficacy of the SCP program through the contributions of both teachers and fellows in the classroom. One of the primary goals stated in the original NSF GK-12 program solicitation was to partner STEM graduate students with teachers in K-12 classrooms to improve the teaching and communication skills of the graduate students *(NSF, 1999)*. As expected, much of the research of the program has focused on the impacts on the fellows and their gains in pedagogical skills and preparation for teaching and research careers (*Thompson, Metzgar, Collins, Joesten, & Shepherd, 2002a*). There have been relatively few reports on the impacts of in-classroom partnerships on teachers (*Cormas & Barufaldi, 2011; Mitchell et al., 2003; Thompson, Metzgar, Collins, Joesten, & Shepherd, 2002b; Willcuts, 2009*). The research conducted in the current study showed that SCP partner teachers brought their love of teaching, an understanding of students in high-needs schools, a strong understanding of pedagogy, and a grasp of classroom management to the program. As suggested by Hill et al. (*2008*), K-12 teachers bring specific skills and attributes to partnerships with scientists, including knowledge of content in terms of student learning and teaching the content, as well as in-depth knowledge of the curriculum.

These strengths were evident in the self-reported fellow data in which fellows discussed learning classroom management techniques from the teachers and how that the teachers' classroom management allowed the fellows more time to focus on the science. The fellows in this study consistently described the importance of the teachers' classroom management skills and understanding of instructional strategies in their understanding of teaching as a profession, in agreement with previous reports (*Thompson et al., 2002a*). The fellows reported that they gained knowledge of student needs and strengths, the curriculum, standards, and differentiating the learning for individual learners from their teacher mentors. As

one fellow stated, "The teacher's knowledge is much more than the materials; much of the leadership skills, patience, and joy of teaching that they show really transfers to the fellows." A key realization from this study was the respect that the fellows gained for their teachers and the teaching profession. The understanding of how to teach gained from the teachers was an invaluable component of the fellows' professional development (*Gamse et al., 2010*).

Implications for Students in Participating Classrooms

Although this study focused on the impact of the SCP program on teachers and fellows, a primary goal of the program (and of the teachers and fellows who participated) was to improve the STEM learning experience for students. It is without question that student enthusiasm and positive attitudes are increased when students have the opportunity to explore and discover (*Ornstein, 2006; Simpson & Oliver, 1990; Van Hook, Nurnberger-Haag, & Ballone-Duran, 2009*). In preliminary work in the current study, students in classrooms with fellows were asked to describe the best thing about having a scientist come to their school. Almost all students responded that they were getting to do more hands-on experiments and that they were having more fun in science class, learning new things, and gaining a better understanding of science *(Ufnar & Shepherd, n.d.)*, affirming that students demonstrate overwhelming positive attitudes and excitement when an SCP scientist is present in the classroom. Teachers also commented that students had higher attendance rates and fewer discipline referrals on days when scientists were present, supporting the findings of Caton et al. (*2000*) that participation in inquiry science resulted in increased satisfaction and fewer disciplinary issues in class.

When students have the opportunity to engage in inquiry investigations, generate their own hypotheses, and draw conclusions, they exhibit more positive attitudes about science (*Ornstein, 2006*). Gibson and Chase (*2002*) reported that students participating in a summer inquiry science program who were followed into high school exhibited a significantly higher interest in science careers than the comparison group. When students do not have positive experiences in science during middle school, they will likely avoid science and by the end of high school have little interest in or knowledge about science (*Maltese & Tai, 2011; Simpson & Oliver, 1990*). In spite of these reports supporting inquiry-based science as essential for students' persistence in science studies, achievement in the STEM disciplines continues to decline. In 2009,

only 34% of eighth-grade students and 21% of 12th grade students performed at the proficient level on the NAEP (*National Center for Education Statistics, 2012*). More important, a significant gap exists in achievement between students in classes that rarely do hands-on science versus students who experience hands-on at least weekly (*Stohr-Hunt, 1996*). Placement of scientists in classrooms alongside teachers may be the solution that is needed to increase student interest in STEM. Both fellows and teachers consistently mentioned the opportunities that they were providing for students, as well as the noticeable enthusiasm by the students. One fellow stated that the program provided scientists with the opportunity to "interact with the children in the classroom to help inspire, teach and motivate them to view science as fun." And a partner teacher commented that "the partnership provided more opportunities for learning and one on one time for students."

Conclusion

In this article, we have described how the SCP program can contribute to building partnerships between higher education and the K-12 environment, enhancing K-12 STEM education, and providing unique opportunities for graduate student and postdoctoral fellow training. Focusing on the partnerships and impacts on students, teachers, and university fellows, we have addressed the limited nature of university–K-12 partnerships and opportunities for graduate students and postdoctoral fellows to participate in STEM reform. We have noted the challenges presented by declining student achievement as compared with international peers, as well as national STEM reform efforts to enhance teacher professional development and increase student engagement and achievement in K-12 schools. Our research has studied the SCP program and the literature to offer recommendations for enhancing those STEM efforts through partnering university fellows and K-12 teachers. Our results show that the SCP program has gone beyond other university–K-12 partnerships in the scope of the program, number of teachers and students impacted, and duration of partnership. We have shown that the SCP program, now in its 17th year, has adapted and evolved to become one of the most successful sustained partnership programs between a university and an urban K-12 school district. Since its inception, the SCP program has resulted in over 200 professional development hours per teacher per year for over 120 teachers in 35 schools; has positively impacted the STEM learning of almost 20,000 students; and has contributed to the professional training of more than 150 fellows. The program has

been incorporated into the STEM reform initiatives in the partner school district and has been institutionalized at the partner universities. In conclusion, our research shows that the SCP program can act as a model for connecting universities and the K-12 community to enhance STEM education while providing unique training opportunities for fellows.

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Methodological Addendum

The research described in this manuscript was a retrospective study of ten years of an ongoing scientist in the classroom program, using self-reporting by participants through online Likert-scale surveys with open-ended questions, as well as in-person participant focus groups. Survey responses and focus group discussions were analyzed using coding as described by Braun & Clark *(2006)*. This approach was chosen to provide both qualitative and quantitative data to support the study conclusions. Qualitative data collected in this study provide a rich and detailed picture supporting the conclusions reached. However, all qualitative studies are limited by the generalizability to different settings.

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