Twitter-vism: Student Narratives and Perceptions of Learning from an Undergraduate Research Experience on Twitter Activism

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Researchers analyzed 91 narratives from first-year students about what they learned from an undergraduate research project on multicultural activism in Twitter. Students in a first-year seminar collected and coded tweets from Twitter feeds promoting social, political, and humanitarian causes. In groups, they produced research papers and conference-style oral presentations. In the reflective writings about what they learned, students self-reported a greater awareness and understanding about themselves, collegiate research, Twitter, and advocacy issues. Faculty members reveal their own reflections and recommend changes for future implementation.

Finding an interesting and manageable way to incorporate undergraduate research into a one-hour first-year seminar led two professors to Twitter. They wanted an entry-level project that first-year students could use as a foray to larger future undergraduate research projects. In the spirit of scholarship of teaching and learning (SoTL), professors systematically evaluated a Twitter research project they conceived. They captured what students thought they were learning from the project in order to measure the project's success, see what modifications for improvement were needed and disseminate findings about the effort.

When communication professors were approached to teach the inaugural college-wide first-year seminar (FYS), they designed a course

to meet student learning outcomes (SLOs): 1) evaluate evidence in analysis, interpretation, or arguments; 2) synthesize varied components of information to form a rational conclusion; and 3) express ideas in written, visual, or oral forms to a range of diverse audiences in multiple settings. The challenge was to develop learning experiences that met the SLOs and would appeal to a range of majors such as communication studies, criminal justice, English, fine arts, humanities, political science and social work. The college decided on a theme of multiculturalism for its seven FYS sections. On top of that, FYS organizers wanted students exposed to opportunities for applied learning, like undergraduate research, internships and study abroad.

Keywords: activism, advocacy, first-year seminar, multiculturalism, Twitter

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To meet SLOs, incorporate the multiculturalism theme, and introduce an applied learning experience, the FYS professors developed a research project that looked at activists on the social media platform Twitter. Student researchers were to capture tweets from an activist's Twitter page for one week. Each student selected a Twitter handle to follow from a list of activists who used Twitter to promote causes like women's issues, LGBTQ issues, humanitarian issues, medical causes, domestic violence, equality, child welfare, and political issues. These handles were selected because they would expose students to multicultural issues. Students were then clustered in groups based on their subject's main focus. In groups, students collated their data and themes for a mixed methods research paper and oral presentation of their findings. Paper requirements included a literature review with peer-reviewed academic citations, methods, analysis, and results. The paper and presentation accounted for 20% of the student's overall course grade. As an inaugural project with many layers and objectives, professors wanted to study this teaching and learning exercise. The purpose of this paper is to see what students thought they learned from the undergraduate Twitter research project.

LITERATURE REVIEW

The scholarship of teaching and learning (SoTL) moves to critically examine the teaching and learning exercise. It is an academic inquiry into the process of learning in order to improve and examine the process of teaching (Boyer, 1990; Schulman, 1993). Schulman (1993) noted that if teaching is a valued part of the university structure as Boyer (1990) wrote, then it was important to approach teaching with the same lens of assessment, critique, and exploration as one would the research component of faculty roles. Kern, Mettetal, Dixson, and Morgan (2015) call SoTL the intersection between teaching and research. They write: "SoTL has a vital and important role for students in the form of enhanced learning outcomes and for academia as

a learning-centered enterprise" (p. 11). Hutchings and Schulman (1999) proposed that the role of SoTL moves beyond the individual classroom or instructor to the dissemination of the scholarship to a public audience.

As social media sites have emerged and connected with higher education environments, scholars explore the place, purpose, use, and impact of social media on teaching and learning. In this paper, social media sites are defined as web-based or mobile applications for creating, engaging with, and distributing user-generated content in the digital realm (Davis, Deil-Amen, Rios-Aguilar, & Gonzales Canche, 2012). Examples of social networking sites include Facebook, LinkedIn, YouTube, Twitter, Pinterest, Tumblr, and Flickr.

Greenhow and Gleason (2014) ask what Boyer's scholarship reconsidered looks like in a social media world. They propose social scholarship, a vision of how Boyer's original four dimensions of scholarship translate with social media affordances. Social media outlets offer broader dissemination of research and a potentially larger pool of critics (even nondisciplinary or nonacademic participants) to challenge research findings. The authors highlight how researchers used Twitter to critique methods used in a recent study claiming to identify a gene that predicted human lifespan. Social media sites encourage and support transparency and data sharing.

SoTL research connected to social networking is just scratching the surface. Articles showcase the positive and negative effects of social media usage for learners and teachers. Much of the research details learner engagement (Dyson, Vickers, Turtle, Cowan, & Tassone, 2015; Evans, 2014; Junco, Heiberger, & Loken, 2011; Pollard, 2014) and integration of social networking technology into classrooms (DiVerniero & Hosek, 2013; Kurtz & Sponder, 2010; Moody, 2010). Another area of focus is how social networking sites (SNS) connect students with professors. One study found a positive relationship between teacher Twitter use and student

perceptions of positive teacher behaviors (McArthur & Bostedo-Conway, 2012). A few articles have looked at student perceptions of SNS as learning spaces, finding that students have negative attitudes toward SNS usage for academic purposes (Gettman & Cortijo, 2015; Madge, Meek, Wellens, & Hooley, 2009; Selwyn, 2009; Veletsianos, 2011).

To understand the SoTL project explored in this study, it is necessary to highlight recent literature on social media and advocacy, Twitter, undergraduate research experiences, first-year seminars, and exposure to multiculturalism in college.

Social Media and Advocacy

Social media sites are wide open spaces for conversation, advocacy, and social change. Champions for all kinds of causes simply log into their free SNS accounts and post, pin, tweet, or snap their strategic messages and calls for action or revolution. Everyone and anyone can be an advocate sharing passions about politics, social causes and human rights issues. Some movements are grassroots and others are managed by large, powerful organizations. Some social media campaigns are catalysts for major changes while others simply ask people to think or consider an issue.

The Arab Spring is a well cited example of how social media was used for mobilizing a cause. Al-Rawi (2014) said the speed and interactivity of social media united protesters in Iraq, and was used to disseminate important information. The author added that "because of the availability of SNSs, government efforts to silence dissent cannot succeed in the future" (p. 935). Alterman (2011) said social media sites helped transform observers and online followers into activists. Instead of being online bystanders, they were sending content, making them a part of the activism and raising the stakes.

SNS usage during the 2009 Iranian national election garnered international attention, calling Twitter a new outlet for mobilization: "Just give

them a computer and an Internet connection and watch what they can do" (Nasr, 2009).

Likewise, women's rights movements use social media to highlight inequality, sexism, violence, etc. The hashtag #yestoallwomen is one example of a platform for women to speak up (Herman, 2014). By using the hashtag, any person can join the larger conversation about women's issues. During the 2015 Hollywood awards season, the #askhermore hashtag promoted equality in red carpet interviews (Alter, 2015). Actresses wanted to offer more in the interview than simply "who they were wearing," especially when male counterparts were asked more substantive questions.

Online activism can translate to offline action. Activism on Twitter for an Australian Earth Hour movement translated into action (Cheong & Lee, 2010) and Harlow (2012) found that Facebook could foster political activism in Latin America. Social media offer opportunities relating to activism, particularly considering access, audience, and reach.

Twitter Advantages

Established in 2006, Twitter is a microblogging site that operates like a text message that is sent to the masses. Individuals, companies, or organizations have Twitter handles and can send messages to their followers (i.e., @GreenpeaceUSA). Messages can include pictures or video, and text is limited to 140 characters. The promo on the Twitter homepage touts, "Connect with your friends—and other fascinating people. Get inthe-moment updates on the things that interest you. And watch events unfold, in real time, from every angle" (Welcome to Twitter, n.d.). This description alludes to ways Twitter is being used: as personal and professional networks, as news sources from mainstream traditional media, as news sources from everyday observers and eyewitnesses, and as a way to connect with celebrities, organizations, causes, and brands. Twitter is a free platform and anyone with a computer or mobile device and Internet connectivity can

tweet (action of posting messages). Twitter users can make their feeds private, but accounts left public are searchable on the Web. This was important for the class project, so students without Twitter accounts could still participate. Twitter prompts users to answer the question, "What's happening?" When a user tweets, it is sent to his or her followers' feed. Users can retweet (RT), essentially a forwarding function, or favorite a message. Hashtags (i.e., #askhermore) are search terms embedded in messages that can be aggregated by users and nonusers.

Twitter has advantages for first-time researchers. The small messages create bite-sized texts for students to study. A larger text can be created by compiling the tweets as one text. While the limited space for longer messages can impede meaning, tweets offered an approachable unit of study. The timeframe for collection was one way to make the project manageable. Having students capture a week or two of tweets was less daunting than coding thousands of messages over many months. Tweets are also publicly available and collecting them does not require human subjects training or Institutional Review Board (IRB) approval.

Undergraduate Research Experiences, FYS, and Multiculturalism

Research supports the idea that students benefit from participating in undergraduate research projects (Craney et al., 2011; Hunter, Laursen, & Seymour, 2007) and Boyer (1998) even recommends starting these efforts in a student's first year at college. One goal of the first-year seminar is to help students acclimate and connect to their new university setting, and students who conduct undergraduate research are more engaged in their campuses (Kinzie, Gonyea, Shoup, & Kuh, 2008). Astin (1993) found that independent research projects and frequent student-faculty interactions are associated with favorable cognitive outcomes.

Hunter et al. (2007) identified six themes of student development from their study on undergraduate research projects: thinking and working like a scientist; becoming a scientist; personal/professional gains; clarification, confirmation, and refinement of career/education paths; enhanced career/graduate school preparation; and gains in skills. Their study looked at students and faculty members in a 10-week highly competitive research apprenticeship incentivized with a stipend. Students were from liberal arts colleges but primarily came from natural science majors. Ninety percent positive student perceptions were reported in Hunter et al.'s (2007) study.

First-year seminars, also called first-year experiences, have become a common approach to help incoming students transition to the college atmosphere and persist beyond the first year. Research supports FYS effectiveness. For example, Klatt and Ray (2014) studied seven cohorts to find that students who completed first-year seminars had higher GPAs and greater retention. Likewise, in a sample of more than 1,900 students, those students who participate in first-year seminars were 40% less likely to leave during their first year (Miller & Lesik, 2014). The Boyer Commission (1998) called for FYS to be implemented on every campus. More than half of U.S. colleges and universities have added some kind of first-year seminar or experience (Padgett & Keup, 2011). They vary in approach. Some are one credit hour while others are three-hour courses. Some are for a letter grade; others are pass/fail. Some tackle discipline-specific topics, some focus on study skills, and others are an extension of orientation (Tobolowsky, 2008).

An aspect of student transition focuses on the diverse campus students encounter upon arrival. For this reason, FYS/FYE programs often involve diversity/multicultural awareness activities. To achieve FYS diversity outcomes, curricula must include emphases in multiculturalism and social justice (Engberg & Mayhew, 2007). Multiculturalism enhances the first-year experience and students benefit socially and cognitively (Feldman, 2005). Even adding cultural awareness workshops helps first-year students; workshops

had a significant positive effects on openness to diversity and challenging students to different ideas (Pascarella, Edison, Nora, Hagedorn, & Terenzini, 1996). The FYS program in the current study adopted an overarching theme of multiculturalism. Therefore, the undergraduate research project assigned in the first-year seminar course had a multicultural angle.

The project at the center of this study brings together social media advocacy, undergraduate research, multiculturalism, and the first-year seminar. With a SoTL framework, professors sought to investigate the teaching practice of a social network-related research experience for first-year students. The paper addresses the following research question: What do first-year students report learning through an undergraduate research experience on Twitter activism?

Methods

This study used a qualitative analysis of student reflective writing to address the research question. Researchers secured IRB approval to capture and study assigned weekly reflective writings during the first-year seminar. Throughout the semester, students' projects were assessed using a rubric, but the professors sought more detailed information about students' perceptions about the learning process. Reflective writing provided student narratives from which themes can be culled and analyzed (Schram, 2006). Previous studies on student perceptions about undergraduate research projects have used this method (such as Bonnet et al., 2013). The reflective writing analyzed for this study occurred late in the semester, after students had already written a handful of narratives on other topics. By this point in the semester, students were accustomed to the expectations for these assigned writings, which were submitted electronically through Blackboard. Reflections were to be at least 300 words and more than a recitation of facts; critical thought was expected and a sample reflection was issued to students early in the semester. Students received feedback

and a grade for the reflections throughout the semester.

Each instructor exported the reflective writing related to the Twitter research project and discarded any writing not tied to a student who signed an informed consent form. Student names were coded with numbers to secure identities. In total, 91 reflective writings were analyzed by the two researchers: 43 from a total of three sections from one professor and 48 from a total of three sections from a second professor. One reflective writing was off topic (a student wrote from another week's prompt) and was discarded. Students in three of the sections wrote their reflections a week prior to the remaining sections. The prompt central to this study was to the point: What have you learned through your research project?

Grounded theory (Glaser & Strauss, 1967; Schram, 2006) guided the analysis, leaving interpretation to be discovered from narratives. Each researcher used open coding to look for themes in her courses' writings and then reviewed narratives from the other researcher's sections. Intercoder reliability was checked (Neuendorf, 2002) for simple percentage of agreement. Agreement of chance and Cohen's kappa were not computed because themes emerged and codes were not established prior to analysis. The two researchers agreed on seven initial themes, with one researcher having an additional theme of technology. Upon a second analysis, mentions of technology were closely related to library skills and research practice and the theme was discarded. The seven initial themes were then grouped into four larger categories.

RESULTS

Scope and spark were overarching concepts from the collection of reflective writing assignments about the Twitter advocacy research project. What did students learn, according to them? Largely, students self-reported a greater awareness and understanding about themselves, collegiate research, Twitter, and advocacy issues (Table 1).

Table 1
Major Themes from First-year Students' Reflections of Their Own Learning Through a Twitter Research Project

Main themes	Sample journal entry
Understanding the research process Language of research (qualitative, quantitative, lit review, peer-reviewed) Parts of a research paper	"I have also learned how to find sources from the library database including scholarly articles along with journals, magazines and other electronic sources."
Resources to help (library, using databases)	
Revelations about Twitter	"Well first and foremost I learned how Twitter worksI did learn a lot about the NCAI, or the National Congress of American Indians, but more about how Twitter works. I have always heard things about retweets and such but have never understood it. I now understand how people can express their views on Twitter, especially these interest groups."
Understanding the research process Language of research (qualitative, quantitative, lit review, peer-reviewed) Parts of a research paper Resources to help (library, using databases)	"I have also learned how to find sources from the library database including scholarly articles along with journals, magazines and other electronic sources."
Increased awareness about a cause or activist	"I've also learned a lot about the Prison Reform Movement. I actually did not know that it was even a thing. I really enjoy that they are pushing for more ethical treatment of prisoners. I feel like that is a very worthwhile goal that needs to be pushed."

Their scope for one or more of these concepts was widened or deepened. Many references were made to "opening their eyes" or "broadening" their understanding. This surprised a few of them; one said, "Through working on this twitter [sic] project, I learned more than I thought I ever would." Another said this about his or her activist's Twitter feed on international women's issues:

I was definitely in some culture shock when I discovered this because I guess in my mind, these women were used to having an arranged marriage, expected it, and even accepted that as their way of life. I never would have realized how big of an issue this was becoming had it not been for the research I have done regarding this project.

For some, a spark ignited where they suggested that they too might use Twitter for more than a cursory conversation, take on a cause, continue their research, or at least use library databases. Themes from the student narratives clustered into the following categories: self-reflection and identity; revelations about Twitter; understanding the research process; and increased awareness about a cause or activist.

Self-reflection and Identity

Comments exposed realizations about self, thinking about the larger world, transitioning to a collegiate collaborative research project, and working in a team. One student summed up this theme when s/he said, "I learned about myself and others as well." Another student wrote, "I've also learned a lot about myself and how I feel about big political issues."

Another reported a transformation even his/ her friends noticed:

By reading and understanding his (Wyclef Jean) tweets I've been living better as a person. I've been having great effects

on other people's lives just by saying a friendly hello or always going about my business with a positive attitude. My friends have seen the small change in my ways. They like it. My friends said I'm more considerate to others and their feelings.

Seeing the "larger picture" emerged. A student who self-identified in the narrative as homosexual and followed the NOH8 Twitter feed said, "This project has opened up my eyes to the gay community as a whole. It has shown me that people everywhere are trying to help with equality...I'm not alone in the world." One student said s/he grew to be more open minded.

Acknowledging their own privileges and being grateful for their own situations showed up in several narratives, especially students analyzing tweets about women's issues: "I was blessed to be raised in a society that women are worth more than in other cultures." One student put it this way: "And this really showed me how lucky I am to have the life I have and not to waste a minute of it by not putting one hundred percent effort into my life every second."

Procrastination, motivation and time management were noted, too. "This project has also caused me to rethink my time management." There were numerous posts of students wishing they had not procrastinated, as individuals and a group: "Eventually, we wised up and realized that biting the bullet would be much more satisfactory."

A subtheme about likes/dislikes of teamwork was prominent. Students commented on their roles in group interactions and peer processes. One said, "It was difficult for me to let the other members of my group take charge on some things." Many added how collegiate teamwork was different from their experiences in high school; high school teachers devoted much class time to group meetings and in this college project, students were to set up times outside of class. Comments tied to teamwork were positive and

negative, and many were brutally honest about their own shortcomings in a team setting. One said, "...when it comes to group work I am so uneager to change. I am usually one that loves to be in control and to take over my project and want it done my way. I hate that I do this." Closely tied to teamwork was the general observation that first-year students were at least getting to know some of their colleagues across the college.

Revelations about Twitter

Students recognized Twitter as a "real" mode of communication—not just for typical social interactions or daily gossip. They expanded their understanding of strategic uses of social media for promoting a cause or in persuasive situations; they saw how it could be a viable communication tool. Some reported using Twitter for the first time and learning how the system worked. Others assessed how well their activist account used the medium for its messaging. One student questioned the appropriate mix of how many messages should be for a cause versus other daily messages, suggesting that too many advocacy messages could turn followers away. Another student conducted an informal analysis of his or her own tweets after this project. A lesser theme was the realization that celebrities were using social networking for more than self-promotionsome use it as a platform for social causes.

Understanding the Research Process

Learning how to research and the tools necessary for research were prominent themes mentioned in student reflections: "It seems research is at the heart of learning," one student claimed. Students learned the parts of a research project like literature review and methodology, and drew comparisons between high school projects and the rigor of a collegiate research project: "So in short, this research project has taught me a lot more than I thought it would. And to be honest? I'm grateful for it." To the professors' delight, a handful even called research "fun."

A few noted how a collegiate project was harder than those in high school, especially given the collaboration necessary with busy colleagues. "I've discovered that scholarly research is NOT (emphasis from student) what I'm used to doing and it's a bit more difficult than I imagined." Library resources and the types of potential sources, like peer-reviewed academic journals, showed up in a number of narratives. "I have learned to use several different search engines from the library to get more research. I find it interesting all the different ways to find information on just one topic." Students mentioned the power of the library databases: "I have already begun using the database in other classes as well" and "rather than having Google crank out useless websites concerning keywords, I could actually browse educated opinions and hard evidence pertaining to the issues at hand."

The students' ideas of research seemed to be stuck in a secondary research mode, meaning they talked about learning the background of the Twitter feed, but did not focus as much on their analysis or primary research on the tweets. A couple of students mentioned their original research like their descriptive statistics and a couple of them mentioned looking for themes or patterns within the content.

I also learned that this type of research project was something that I had never experienced before, so it was difficult trying to find a safe way to approach the criteria without going off in the completely wrong direction with the interpretation.

Negative comments were mixed with the positive. Confusion and frustration were noted, and some called the project "useless" and "very stressful." One said, "I learned that not all assignments have a point to them." Discomfort was attributed to the research process and coordinating the group work: "Before I really dug into this

project I was thoroughly confused...but I get how it works in general now."

Increased Awareness about Cause or Activist

Students were encouraged to select a cause counter to their personal beliefs, or one in which they were not as familiar. Students selected a Twitter handle from the list supplied by the professor. Some simply picked a name, unfamiliar with the person's or organization's particular cause. "This project has already got me thinking and learning new things about people that I had never knew before," one student said. Another did not know prison reform existed and agreed with the push for more ethical treatment of prisoners.

Most narratives contained some facts and figures about the advocacy group or activist, showing basic knowledge acquisition. Scope showed up again here with students commenting on how much each group or activist does for its cause. They may have known a bit about the group, but many were "surprised" or "shocked" with how much ground the particular group covered. A student who followed a children's rights Twitter account said, "I have found that children are being abused and neglected more than I ever imagined" and s/he was "happy to be more aware of children's rights through this research project." Another reported an increased awareness that AIDS is a "first world" problem, too, while a colleague made a similar observation about human trafficking happening in America.

Awareness included critical thought and evaluation of the activist's viewpoints. One student analyzed Code Pink with the final conclusion that they could agree to disagree:

Personally I am not going to join Code Pink. Some of Code Pink's views and mine are not the same like they think that everything can be fixed in peaceful ways. The world would be a bunch of rainbows and butterflies if that was true, but it is not. This research project has taught me that not everyone has the same view on things. But sometimes two totally different people may have different views on things but they want the same thing but just have a different way of trying to obtain what they want. So people need to respect other's views because they do not want someone else to disrespect their views.

"Because of this project, I want to follow more people advocating for causes I feel passionate about," said a student who disclosed s/ he is a social work major wanting to work with women who have been victimized. Some students even called for action in their writings, urging that learning about a particular organization is "important to everyone I believe," and that human rights are an important aspect for all.

A lesser theme was acknowledgement that people care about issues bigger than themselves:

Another thing I learned in my research of @Traffick911 is that there really are other people in the world that actually care about something bigger than themselves. There actually is sort of a hope for my generation, in that we actually are beginning to stand for something and put our feet down and say we've had enough.

Overall and within the themes, more comments were positive. However, some students said they learned nothing, mentioned not seeing the point, were "ready for it to be over" (about one tenth of the responses), and were glad to have it "behind" them. Most comments were from a personal, journal-like perspective with more declarative statements than questions. The students were open and candid in their responses, with signs of critical thought and reflection. A handful of students questioned the authenticity of the Twitter account; was Nelson Mandela actually tweeting, or someone on his behalf? (Study was conducted while Mandela was alive.) One student tied his/her project to lessons from another course and a

handful mentioned how the project could tie to future careers.

Discussion

Students reported learning about themselves, Twitter, the research process, and a particular cause or activist. These themes coincide with findings from other studies of student perceptions about undergraduate research. The four themes found in this study are within Hunter, Laursen, and Seymour's (2007) six themes. The largely positive responses from students line up with the 90% positive perceptions reported in Hunter et al.'s (2007) study.

Self-reflection and identity captured a large portion of comments gleaned from the reflective writings. Some of this may have been the nature of the reflective writings and the prompt that asked, what have you learned through your research project? The reflective writing sample issued to students used first person pronouns and showcased connecting learning to you and your experiences. Seymour, Hunter, Laursen, and DeAntoni (2004) had a similar category called personal and professional gains. Confidence was one of their major discoveries and was a lesser theme in the current study. Students in the current study focused more on interpersonal skills and traits that were strengthened or tested, like motivation/procrastination, leadership, group communication. Other parts of this theme included seeing themselves in the "bigger picture." Discovery about their own feelings about particular groups and activists, or activists in general, was mentioned, but not as much as anticipated. Professors expected students to focus more on such self-discovery because they were new to activist topics and the idea of online activism.

The theme about Twitter usage encompassed the most basic observations about how the platform worked to more advanced thought about how it could be better used for persuasive messages by activists. Students seemed surprised that celebrities (actors and sports stars) would use this medium for activism. For a generation steeped in

technology and attached to mobile devices, this seems somewhat naïve, but research points to the fact that we must teach students how to use social media for strategic, nonpersonal messages (Madge et al., 2009; Maranto & Barton, 2010; McEachern, 2011).

Research prowess, another major thematic category, included comments ranging from questioning the value of the project to touting its value as a research primer. Library resources, like how to use databases and other search engines, were noted frequently. Students discovered how much their library had to offer and how helpful they could be for research projects and other inquiry. Students received one tailored database training session with university librarians familiar with this project. Advancing student library familiarity alone is a mark of success. Based on librarian feedback, the training session was scheduled after the project was introduced to students and deadlines outlined, so students had a real need for library services. If scheduled too far in advance, students would not see the immediate value and need. The library session and emphasis on finding academic sources might have shown up in the write-ups because of the importance faculty placed on this piece of the process. In their narratives, students used the vocabulary of research, like "peer-reviewed journal" and "lit review," showing a level of basic knowledge acquisition. They distinguished between high school and collegiate projects, and some reported floundering at first. This theme garnered more negative responses, possibly because of frustration with the research process, which can be daunting at any experience level. Hunter et al. (2007) cited similar findings about frustration.

The fourth theme was directly tied to the activist or cause followed in social media. Students reported an increased awareness and broadened understanding of the group's mission. Narratives ranged from simply reporting of facts about the group to truly analyzing how the group makes an impact, or what the student thought about the cause. Some reported small changes in attitudes

toward a cause, mostly because of a fuller understanding of the cause. Asking students to select causes unknown to them or counter to their beliefs created opportunity for growth. One student said, "Encouraging people to follow an activist, politician or group with they normally wouldn't follow or with whom they openly disagree with is a good idea and helps spur the idea of considering all vantage points of an issue or topic."

An element of ethnocentrism crept into some narratives where students viewed and judged another culture's customs through a first world lens. One student said:

Women in America are very lucky. I was blessed to be raised in a society that women are worth more than in other cultures. We are able to get jobs and even hold title positions. Without all of these opportunities America wouldn't be the land of the free.

A discussion or class activity on ethnocentrism might make students more aware of the concept and how it might affect their approaches and reactions to the Twitter feeds.

A theme largely missing was a connection to the faculty research mentor. With more than 100 first-year students each, the professors were not able to directly mentor as much as they would have with small research teams. One professor made herself available to attend individual group meetings, of which some groups took advantage. Regular faculty contact, like that from a research partnership, continues the intellectual exercises outside of the classroom, and builds "academic competency" and "integration," factors benefiting student retention (Nagda, Gregerman, Jonides, von Hippel, & Lerner, 1998).

Based on the four major themes, the professors feel like the project was a success in its inaugural semester. Having first-year students experience the research process early in their college experience was the main goal. Adding

the expanded scope and spark for students in the other three themes made the project one to keep for future semesters, with minor modifications. Also, student learning outcomes were met. During the project, students evaluated evidence, synthesized varied information to form a rational conclusion, and expressed ideas in written, and oral forms for a diverse audience. One student summed up the project nicely:

Surprisingly, I have learned way more than I ever thought I was going to. This twitter [sic] project has opened my eyes to many different things, which in return has given me a lot more knowledge. It's crazy to me how you can learn the same material in so many new, fun, and interesting ways. Also you get the chance to look at how other people see things and how they reflect on it on a daily bases [sic]. This project shows us the importance of commutation [sic] and all the different ways it is used in today's world. It gives a voice to people all around the world and helps them get their message across. Not only is this a great research project, but it can lead to many other research projects as well.

Throughout the course design and first semester of the course, instructors reflected on their teaching, class lessons, student responses, and the success of the course design through weekly reflective journals, meetings, and email correspondence. During the first week of classes, one professor wrote, "I am very thankful for my COLFA (acronym for college) colleagues teaching the course. It is so helpful to bounce ideas off of another person with a course like this" (Teaching journal, August 2013). As the professors moved into the research project assignment, one reflected, "Twitter project explanation and sign up today. Pandemonium" (Teaching journal, October 2013). Following that reflection and a subsequent meeting among faculty, a sample

research paper was developed and shared as a guideline to the students. The stress level lessened and students were able to see the goals more clearly with the assignment.

One professor said, "This lifted my heart this weekend," in response to a student reflection that said, "The twitter (sic) project we are currently involved in about following an activist is in itself proof that activism is not dead" (Teaching journal, November 2013).

Presentations yesterday went pretty well. They have a long way to go on presentation skills, but they got up there and did it. <<College dean>> caught the afternoon group. She seemed very pleased with their exposure to advocacy and diversity, and budding research. (Teaching journal, November 2013)

Through this reflective journaling by the professors, several changes and suggestions emerged for future instruction. First, students were quick to panic about the research project. "They are more panicky about final project than anything else" (Teaching journal, November 2013). Professors had to acknowledge that the amount of concern students felt about a new academic endeavor (such as group work in college, peerreviewed journals, and qualitative/quantitative data) was compounded by all of the other "firsts" in their first semester. They were navigating a new environment and new academic endeavors at every turn. To help this issue, the instructors crafted clearer benchmarks, created mini-goals, posted samples, and even altered the introduction of the assignment. Professors were also navigating the roll-out of a college's first FYS course. Teaching journals showed areas where professors felt like they needed change for the next semester.

On a quick glance through the papers, ugh. I should have done more scaffolding, or required a draft stage. Some got it, and just made rookie mistakes like

using too much "I" and "we" for a manuscript. Others didn't even bother to use the library resources. Some didn't merge each section and basically jammed four papers one after another. (Teaching journal, November 22, 2013)

The rubric I created didn't work very well in real-time for presentations. If found myself just making notes in the margins on one and then will transpose to one for each of the group members. You might make the rubric only take the left side of a sheet, so you could scribe on the right. (Teaching journal, November 22, 2013)

In subsequent semesters, the project was referred to as a "mini-research project" that shaped skills in both qualitative and quantitative research. The instructor journals also helped clarify the times of the semester that students struggled the most. Because of that knowledge, future semesters had a shift in when assignments were given and completed. Additionally, Twitter activists were vetted to better address consistency of tweets and group structure. Despite the need for changes, the project pushed both students and professors to reflectively examine the role of research in a first-year seminar course.

Limitations, Future Study, and Conclusion

The current study looks at a project within one liberal and fine arts college's first-year seminar course. Professors collected and graded student narratives as part of the course's reflection writing exercises. Students may have typed what they thought would garner a higher grade even though the rubric was for measuring writing and critical thought. The self-reporting nature of student learning in the narratives also limits the generalizability of the study. The professors evaluating the reflective writings for themes were the same instructors who devised and delivered this project, which could have introduced bias.

While efforts were made to mitigate their personal perspectives and beliefs, they may have seen more positives than negatives.

Future studies could measure learning with instruments besides students self-reporting perceptions about their own learning. Future work could also look at student demographics such as gender or major for comparisons. Surveying students or having outside reviewers look at narratives would add another layer of analysis. Future projects could require students to publicly share their findings via the Web, maybe through a blog. The expanded dissemination could enhance project quality and student motivation, giving students an "authentic audience" (Putnam, 2001). This project could be modeled for other first-year seminars or other courses by selecting a topic matter and finding the related Twitter handles to follow.

"Scope and spark" is one way to sum up the student experience. The project, meant to expose students to advocacy tied to multicultural issues and undergraduate research, expanded the students' understanding (scope) of various topics and motivated a few to continue their inquiry (spark). To further embrace opportunity, professors will continue to fine-tune the project and encourage students to continue their research, seek publication, or submit to a conference.

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