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When teens create the news: examining the impact of PBS/news hour student reporting labs

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Abstract

The PBS NewsHour Student Reporting Labs program (www.studentreportinglabs.com) connects middle and high school students to local PBS stations and broadcast news professionals in their communities to report on critical issues from a youth perspective. Through a project-based, active learning model, students learn how to synthesise information and investigate important topics, while building media literacy, communication and problem-solving skills necessary for the knowledge economy of the 21st century. The program involves more than 50 schools and community centers across the country and each site has adapted the program to meet the particular educational needs of its students, faculty and community. The intended goals of the PBS NewsHour Student Reporting Labs program are to help students gain a better understanding of what constitutes news; evaluate the credibility of the information they receive via news content; strengthen their appreciation for the norms of professional journalism; and build skills and confidence as communicators through learning how to produce news content in a collaborative real-world environment where what they create may be viewed by an authentic large audience and publication becomes the ultimate assessment. Findings from pre-post quantitative research conducted with nearly 500 high school students who participated in the program reveal the development of media production skills that involved gathering and synthesising information, using digital media and technology to communicate ideas in the format of a broadcast news package, and engaging in cycles of revision and feedback to polish their work. This study found significant increases in collaboration and teamwork competencies, including intellectual curiosity, the ability to give and receive feedback, and confidence in self-expression and advocacy.

Keywords: journalism, media, media literacy, education, high school, secondary education, public broadcasting, news, partnership, program, evaluation

The inclusion of broadcast journalism learning experiences in the context of American secondary education has been recommended for decades by media scholars and educators as a way to advance adolescent development. Scholars suggest that these programs support the acquisition of media literacy (Hobbs 2011), deepen students' interest in news and current events (Mihailidis 2008) and contribute to civic engagement (Kahne, Feezel, and Lee 2011). But what do we know about whether broadcast journalism experiences, implemented in high schools, actually result in such outcomes?

To address declining levels of engagement among learners, high school teachers have been experimenting with the use of news, current events and multimedia video composition. For many young people, academic achievement declines in adolescence as youth face a crisis of relevance, which develops as students question the relationship between the knowledge and skills that are valued in the classroom and what is valued in contemporary society (Masterman 1985). Many of today's students see no connection between the classroom and the culture, and these attitudes have a negative impact on motivation. For example, only 28% of graduating high school seniors believe that what they do in classrooms is meaningful and useful to their lives or futures (Messersmith and Schulenberg 2008), and this proportion has been decreasing for many years.

Fortunately, new approaches to engaging learners are building upon some of the changing models of citizenship that are the result of the shift from a print to a digital culture. Indeed, the conceptualisations of the dutiful citizen, one who simply votes in elections, is being replaced by the actualising citizen, whose engagement in the public sphere is connected to person and social identity (Bennett, Wells, and Freelon 2011). Citizens are expected to be both "readers" and "writers," participating in discussion and debate that advances civic action. One form of civic learning focuses on the production of information that is created and shared by peers, where teens learn to use self-produced and self-distributed digital and social media and participate in peer-centered special interest groups. New forms of civic learning include a focus on producing information that is created and shared by peers, learning to use self-produced and self-distributed digital and social media, and participating in peer-centered special interest groups. These creative practices of civic participation are dependent upon an appreciation of the role of media in democratic societies. As Banks (2001, 9) explains, "To become thoughtful citizen actors (we) must understand the ways in which knowledge is constructed and how knowledge production is related to location of knowledge producers in the social, political and economic contexts of society."

For educators who are looking to develop a genuine inquiry-centered classroom, journalism education gives high school students the opportunity to research a topic, interview experts and compose a news story – and such learning experiences can be transformative. One important example of this work is the PBS NewsHour Student Reporting Labs program (www.studentreportinglabs.com), which connects middle and high school students to local PBS stations and broadcast news professionals in their communities to report on critical issues from a youth perspective. Through a project-based, active learning model, students learn how to synthesise information and investigate important topics, while building media literacy, communication and problem-solving skills. In 2013 – 2014, the program involved more than 50 schools and community centers across the country, with each site adapting the program as needed to meet the particular educational needs of its students, faculty and community. During the 2102 - 2013 academic year, high school students, working with a teacher and a mentor from a local PBS affiliate created over 70 broadcast news stories. Table 1 shows a sample of the content and topics addressed by high school students.

Table 1

Sample of topics explored by students in PBS newshour student reporting labs
➢ Are Constitutional rights upheld in South Carolina schools?
➢ Student athletes asked to monitor social media presence
➢ Texas residents reflect on damages after an Austin fire
➢ Chicago teen reflects on gang-related deaths that altered his life
➢ Water conservation: Friend or foe?
➢ How does Alabama's immigration law affect student retention?
➢ Philly teens explore possible solutions to high school dropout epidemic
➢ Oakland youth urge citizens to deal with climate change

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The intended goals of the PBS NewsHour Student Reporting Labs program are to help students gain a better understanding of what constitutes news; evaluate the credibility of the information they receive via news content; strengthen their appreciation for the norms of professional journalism; and build skills and confidence as communicators through learning how to produce news content in a collaborative real-world environment where what they create may be viewed by an authentic large audience and publication becomes the ultimate assessment (Hobbs, Donnelly, Friesem, and Moen 2014).

In this paper, we reporting findings from pre-post quantitative research conducted with nearly 500 high school students who participated in the program. We reveal the development of media production skills that involved gathering and synthesising information, using digital media and technology to communicate ideas in the format of a broadcast news package, and engaging in cycles of revision and feedback to polish their work. Research results include: significant increases in collaboration and teamwork competencies, including intellectual curiosity, the ability to give and receive feedback, and confidence in self-expression and advocacy. We also found increases in media literacy analysis skills, more selectivity in media use choices, and a shift towards high-quality news sources over entertainment-type news. Students had a less apathetic view of news and journalism, as well as orientation toward journalism careers. We also observed increased commitment to civic activism and an interest in civic engagement activities, particularly ones that are digital and collaborative. We conclude the paper by offering recommendations for how high schools and news media organisations like PBS News Hour can continue to advance innovation in media education through collaborative programs that activate youth voice and bring their perspectives to broader audiences nationwide.

Media education in high schools

High school English and social studies teachers have been experimenting with the use of multimedia video composition and the use of journalism and other forms of non-fiction media since the 1970s as a means to support the needs of all learners and to address the crisis of relevance that develops as students question the relationship between the knowledge and skills that are valued in the classroom and what is valued in contemporary society (Palmieri 2014; Masterman 1985). For at least the past ten years, a variety of English education organisations, including the National Council of Teachers of English (NCTE) and the Conference on English Education (CEE) have also recognised the need to include both the critical analysis of nonprint texts and multimodal creative production projects into the secondary English curriculum, and the Common Core standards seems to support media literacy when it states, "To be ready for college, workforce training, and life in

a technological society, students need the ability to gather, comprehend, evaluate, synthesise, and report on information and ideas, to conduct original research in order to answer questions or solve problems, and to analyse and create a high volume and extensive range of print and nonprint texts in media forms old and new" (21st Century Information Fluency 2012).

When implemented in either school or informal learning settings, digital and media literacy (including both media analysis and media composition activities) enables students to reflect on their uses of media and technology, analyse and evaluate media messages, and create works that are "dynamic, interactive, generative, exploratory, visual and collaborative" (Swenson et al. 2005, 1). The National Council for the Social Studies position statement (2009) on media literacy education notes that media literacy entails "broadening the definition of what is considered acceptable text to include multiple ways people read, write, view, and create information and messages" (1). In this view, legitimate texts include popular culture, advertising, photographs, maps, text messages, movies, video games, and Internet web sites, as well as print. Media literacy also involves multimedia production as students learn to create messages with different media and technology. In composing with image, language and sound, students must consider audience, purpose, genre, form, and context. By creating presentations, Internet blogs, videos, podcasts and other forms of expression and communication, students gain confidence in using their voices to explore the relationship between information, knowledge, and power.

In the informal learning sector, digital storytelling activities provide opportunities for young people to discover the creative and collaborative accomplishments that result from the experience of gaining a sense of voice and agency through digital media. These programs often make use of an adult mentor who leads youth through a step-by-step process of first creating a story and then converting it to a storyboard, shooting images, learning video editing software, writing and performing scripts, and selecting music to accompany their final productions. Productions are seen to provide a means by which youth can exemplify and personify the self in direct relation to their peers and community members (Hull and James 2007). Similarly, the MacArthur Foundation has supported research in digital learning in an informal setting, and there has been an explosion of evidence showing the increased levels of motivation and engagement that result from connected learning, where students pursue their interests in "a socially meaningful and knowledge rich economy of engaging participation, self-expression and recognition" (Ito and Salen 2012, 1).

Little is known, however, about how multimedia production experiences in high school have impact on student learning. There is only a slender body of research on video production courses in American high schools, even though many high schools have offered courses in video production since the 1970s when schools built TV studios and equipped them with the latest in audio-visual educational technology. Today, about 50% of American high schools have video production courses, generally as part of a career and technology education sequence (U.S. Department of Education 2010). For example, the Audio Video Production and Animation program at Anderson High School in Austin, Texas offers a program that is designed to provide students with the opportunity to explore careers in the film and animation industries. Courses emphasise cinema/animation history, media analysis, principles of digital photography, and filmmaking and animation practices. Students work in collaborative groups in order to write, shoot, and edit projects using professional editing software. Typically, students are offered a sequence consisting of an introductory course which includes a mix of both media analysis and video production activities, followed by a series of more advanced production courses, including courses in animation, video game design, news broadcasting, or film. In such courses, students will typically use software tools such as Final Cut Pro 7, GarageBand and Soundtrack Pro, and

Adobe Photoshop CS6. But not every student will have identical learning experiences in a video production course, because these courses generally involve students in active peer collaboration, engaged in a variety of different types of projects that involve a wide variety of knowledge and skills. For this reason, it is important to carefully document the kinds of skills that are activated in video production learning experiences and to consider how these skills intersect with attitudes and behaviors that contribute to civic engagement.

We had the opportunity to study a particular news media literacy initiative, entitled the PBS NewsHour Student Reporting Labs program (www.studentreportinglabs.com), which connects high school students to local PBS stations and broadcast news professionals in their community to report on critical issues from a youth perspective. Through a project-based, active learning model, students learn how to synthesise information and investigate important topics, while building media literacy, communication and problem-solving skills necessary for the knowledge economy of the 21st century. The program involves more than 50 schools and community centers across the country and each site has adapted the program to meet the particular educational needs of its students, faculty and community. More than 1,000 students participated in the program in 2012-2013, its third year.

The intended goals of the NewsHour Student Reporting Lab are to help students gain a better understanding of what constitutes news; evaluate the credibility of the information they receive via news content; strengthen their appreciation for the norms of professional journalism; and build skills and confidence as communicators through learning how to produce news content in a collaborative real-world environment where what they create may be viewed by an authentic large audience and publication becomes the ultimate assessment.

Methodology

We conducted a large-scale pre-test – post-test study of students and teachers who participated in the Student Reporting Labs program during the 2012 – 2013 academic year. Students completed a battery of online survey items at Time 1, between September 1 – October 10, 2012, and again at Time 2, between May 1 - 30, 2013. The online survey instrument evaluated student media behavior, attitudes, and learning outcomes. Using a combination of scaled multiple-choice items and performance-based tasks, the instrument addressed news media consumption, production skills, program experiences, life skills, media literacy competencies, attitudes toward news media, civic engagement, attitudes toward education, and demographics. The research documented in this report presents the final year of a three-year inquiry. We used a combination of formative and summative program evaluation methods including: teacher and student interviews, observations of classrooms and professional development programs for teachers, examination of student work samples, and online survey research with both students and teachers. At regular interviews, we produced reports to share evidence with the PBS NewsHour Student Reporting Labs team in order to improve program development.

Online survey research was used to gather quantitative data about the impact of the PBS NewsHour Student Reporting Labs program on student learning. To develop reliable and valid measures, we first conducted a pilot study with a sample of 85 students in 2011. Evidence from this study was used to refine the items used in the present study (Hobbs et al. 2014).

Sample. Teachers from 38 participating schools recruited students to participate in the program. A complete list of schools whose students participated in the research is shown in Table 2. At Time 1, a total of 566 students took the pre-test, with 429 students completing the survey. At Time 2, a total of 358 students took the post-test. After cleaning to eliminate incomplete data, 283 complete records were usable. Participating students came

from diverse racial, ethnic and socioeconomic backgrounds, with 30% white, 13% African American, 36% Hispanic, 2% Asian, 2% Native American and 17% other. Students ranged from 13 – 18 years of age, with 40% of the students being age 17 at the time of the post-test. There were more males (60%) than females (40%) in the program. About 35% of students came from families whose parents had a high school education or less, an indicator of lower socio-economic standing.

Table 2

List of Participating Schools

America's Choice SAND School
Arts Academy at Ben Rush
Attucks Middle School
Austin High School
Broad Ripple Magnet High School
Brooklyn Community Arts and Media High School
Communications Arts High School
Daniel Pearl Magnet School
Desert Pines High School
E.L. Haynes Public Charter High School
Fort Mill High School
Fraser High School
Free Spirit Media/Gary Comer Youth Center
Future Leaders of America's Gulf (F.L.A.G.)
Golightly Technical
Granby High School

Hopi Junior Senior High School
Howard University Middle School of Math/Science
Jalen Rose
John F. Kennedy High School
John Hopkins Middle School
Lakewood High School
Magnolia High School
Marietta High School
Media Enterprise Alliance
Murrah High School
Pacific High School
Pearl-Cohn Entertainment Magnet High School
Pflugerville High School
Putnam Middle School
Richwood High School
Sentinel High School
Shenandoah High School
T.C. Williams High School
Windsor High School
Withrow University High School

York School	Comprehensive	High
Youth News Network		

Online survey instrument. The online survey instrument evaluated student media behavior, attitudes and learning outcomes (Hobbs et al. 2014). The instrument addressed news media consumption (TV, radio, digital and print), production skills, program experiences, life skills, media literacy competencies, attitudes toward news media, civic engagement, attitudes toward education, and demographics. Prior to administering the post-test in May 2013, we added some additional items for measuring collective civic engagement in response to feedback from participants who attended a presentation of the results of pilot study data. These items are the only variables where we cannot compare student responses at both Time 1 and Time 2. Other measures were also gathered; this data is not reported in this particular paper.

Research was conducted with a sample of nearly 500 students from 44 schools who participated in the PBS NewsHour Student Reporting Labs program during the 2012 - 2013 school year. In order to assess the impact of the program on students, we measured knowledge, attitudes and skills at two points in time, during the beginning of the school year in September 2012 (Time 1) and again in May 2013 (Time 2).

Findings

Media Production Skills. The PBS NewsHour Student Reporting Labs uses an instructional model that enables students to gain significant knowledge and skills through engaging with real-world current events. By taking on the role of news reporter, student must seek out and evaluate information and opinions from a variety of sources, then synthesise and present ideas using a combination of language, images and sound, all in a collaborative environment, with support from teachers and PBS media professional mentors, and working under deadline pressure. High school students developed media production skills that involved gathering and synthesising information, using digital media and technology to communicate ideas in the format of a broadcast news package, and engaging in cycles of revision and feedback to polish their work.

Gathering and synthesising information. Students who participated in the PBS NewsHour Student Reporting Labs program developed knowledge about topics including climate change, the Supreme Court, education, medicine and public health, business and the economy, immigration, and policy issues that affect all Americans. They developed meaningful relationships with community stakeholders in local government, business, and education; they deepened their tolerance for complexity as they encountered people and information sources with a variety of points of view. The program emphasises exposure to challenging informational content combined with dynamic instructional practices that emphasise critical thinking about messages and creative, collaborative authorship using language, image and sound. These factors contribute to good alignment between the PBS NewsHour Student Reporting Labs and the Common Core State Standards, which emphasise the importance of developing students who are college and career ready. The following Common Core Standards are aligned with the goals of the PBS NewsHour Student Reporting Labs program:

- Demonstrate independence in reading, analysing and expressing ideas, seeking out and using resources to gain knowledge
- Gain a strong base of content knowledge across a wide range of subject matter, gained by listening, reading and sharing information and expressing ideas
- Adapt their communication in relation to audience, task and purpose with sensitivity to the way in which different disciplines call for different types of evidence
- Are engaged, open-minded and discerning readers and listeners, asking critical questions to assess the veracity of claims and the soundness of reasoning, using evidence to develop their ideas
- Use technology to gain knowledge and express ideas, with sensitivity to the strengths and limitations of various technological tools and media
- Appreciate diverse interpretations and points of view to understand points of view that are much different from their own.

Table 3 shows the percentage of students who reported completing key activities aligned with Common Core Standards during their participation in the PBS NewsHour Student Reporting Labs program. Table 4 shows that students developed media production skills that involved gathering and synthesising information, using digital media and technology to communicate ideas in the format of a broadcast news package, and engaging in cycles of revision and feedback to polish their work. While not all students were able to participate in every activity, overall participation increased dramatically throughout the year. These diverse production experiences helped students gather information from a variety of sources and synthesise it into concise, informative and balanced news reports.

Table 3

Student news production experiences align with common core standards

Gathering and Synthesising Information	**Percentage of Students who reported participating**
Analysed videos	70%
Created a story board	65%
Conducted interviews	68%
Fact-checked information	49%
Pitched a news story	54%
Discussed different points of view about social and political issues	53%
Using Digital Media to Communicate Ideas	
Used a video camera to record visuals	69%
Wrote a script	64%
Performed in front of the camera	65%
Worked behind the scenes in different roles	64%
Logged footage	43%
Edited visuals and sounds	68%
Used a variety of images and sounds to tell a story	54%

Posted videos online	38%
Engaging in Cycles of Revision and Feedback	
Edited reports in response to feedback from others	38%

Table 4

Students Expand Both Communication and Technical Skills

Production Skills	**TIME 1**	**TIME 2**	**CHANGE**
Communication			
I am confident interviewing a stranger.	2.55	2.73	+.18*
I know how to conduct interviews to gather information.	2.33	2.86	+53*
I can compare fact and opinion.	2.88	3.29	+.41*
I know how to develop a news story pitch.	2.04	2.59	+.55*
I use the Internet to gather reliable information.	3.10	3.18	+.08
I know how to present myself on camera.	2.61	2.97	+.36*
Technical	2.69	3.28	+.59*
I can easily set up a tripod and camera.			
I can fix audio and video quality.	2.24	2.91	+.67*
I can do substantial video editing.	2.16	2.90	+.74*
I can plan, direct and produce a video news report.	2.16	2.64	+.48*
I have the skills I need to make a professional news video.	2.10	2.68	+.58*
I can use a video camera to film news reports.	2.69	3.10	+.41*

N = 283, * p.<.05

Development of Communication and Technical Skills. Significant growth over time was evident in the development of both communication and technical skills. Students were asked to rate their abilities on a four-point scale ranging from "not much like me" to "very much like me." As Table 4 shows, students gained proficiency in gathering information using interviewing. They made substantial strides in comparing fact and opinion. They learned on-camera performance skills in presenting themselves to a public audience. Students also showed impressive gains in the many technical skills involved in using digital technology to gather video footage and edit it. For students now growing up at a time when every citizen is both a consumer and producer of information, these competencies will give students a distinctive advantage in preparing them for college and careers. Through the experience of working as part of a journalistic production team, students developed key collaborative skills. These competences dramatically increased over the

course of the academic year and are linked to production learning experiences.

Intellectual Curiosity: Students were significantly more likely to agree with the following statements: "I want to learn about all sides of a given issue," "I am curious about ways to solve issues in my community," and "I often find myself questioning things that I hear or read." This willingness to explore multiple sides of an issue and orientation toward community problem-solving are clearly linked to pre-production processes, such as brainstorming, information-gathering, seeking out topics and interview subjects, and developing angles and interview questions. Students with a high level of intellectual curiosity may be more likely to produce news reports that tackle underreported topics or offer fresh perspectives on familiar ones.

The ability to give and receive feedback: Students were significantly more likely to agree with statements including "I am open to constructive criticism," "I motivate others to do their best," and "I know how to give detailed feedback." Being able to provide constructive and motivational feedback is a key skill for anyone who works as a member of a team. Students who learn how to collaborate well during their high school years are at a distinct advantage when entering college or the workplace.

Confidence in self expression: Students were significantly more likely to agree with the following statements: "It is easy for me to express my views and opinions," "I have a clear idea of what values are important to me," and "I am willing to express my opinion even if I know it is unpopular." These skills are linked to the research and creative dimensions of the message production process. In addition, students who are comfortable expressing their own values may be more comfortable asking hard interview questions and holding authority figures accountablekey skills for budding journalists.

Table 5 shows students' mean scores in a four-point scale ranging from "not much like me" to "very much like me." The change in scores over time indicates that the program had a meaningful impact on the "soft skills" that are so important to success in the world outside the classroom. While participating in news media production experiences helped shape students' abilities as communicators, evidence from this study show improvements in intellectual curiosity, giving and receiving feedback, and confidence in self-expression, competencies that will serve students in any 21st century workplace.

Table 5

Students developed intellectual curiosity, collaboration skills, and confidence in self-expression

Intellectual Curiosity	**TIME 1**	**TIME 2**	**CHANGE**
I want to learn about all sides of a given issue.	3.08	3.31	+.23*
I am curious about ways to solve issues in my community.	2.67	2.97	+.30*
I often find myself questioning things that I hear or read.	3.10	3.33	+.23*
Giving and Receiving Feedback	**TIME 1**	**TIME 2**	**CHANGE**

I am open to constructive criticism.	3.00	3.36	+.36*
I show respect for people's ideas and feelings, even when I disagree with them.	3.44	3.53	+.09
I motivate others to do their best.	3.05	3.18	+.13*
Confidence in self-expression	**TIME 1**	**TIME 2**	**CHANGE**
It is easy for me to express my views and opinions.	2.99	3.28	+.29*
I have a clear idea of what values are important to me.	3.25	3.49	+.24*
I am willing to express my opinion even if I know it is unpopular.	3.10	3.32	+.22*

N = 281, * p > .05

Discussion

This study offers insight on the development of the co-called "soft skills" of communication, which until now have not been explicitly studied by news literacy researchers. Today, educators are trying to enhance students' writing, reading and research skills in ways that cultivate intellectual curiosity, the ability to give and receive feedback and confidence in self-expression. This study has shown that news literacy initiatives like PBS Student Reporting Labs can be effective in engaging students to increase their cognitive and emotional investment in their own learning. Video production activities can support the development of key literacy competencies and because reporting the news is a form of social power, students can tap into this social power by learning the norms and conventions of broadcast journalism. When students learn to activate their voice, using language, images and sounds to tell a story, they also develop important social and interpersonal skills as they learn to talk to people they don't know, ask good questions, and explain complex ideas with clarity and precision.

When teachers use journalistic composition in the classroom, the work has a credibility and authority that comes from its obvious relevance to community, regional and national issues. Students are encouraged to have intellectual curiosity, develop strategies to find and use information, and use creativity in expressing what they learn.

Strengths and limitations of the study must be noted. This study's strengths include the measurement of competencies at two periods of time to observe pre- and post effects and the racial and ethnic diversity of the sample. It is also noteworthy that these robust findings of attitude and behavior change occur even in the face of multiple settings and contexts, with different populations of students participating in the program and different levels of experience and skills of teachers and local PBS mentors. However, the study has several limitations, particularly the lack of a true experimental design and the lack of a control group. Students could not be randomly assigned to condition and it was possible to gather data only from students who participated in the news literacy program. The differences in student attitudes and behavior may be due to factors other than participation in the Student Reporting Labs program. For example, maturation or other factors may also have played a part. Students chose to enroll in this program and selection bias may have affected outcomes. Only a true experiment, where students are randomly assigned to participate in the program could demonstrate that the educational program caused these important improvements in communication skills, technical skills, intellectual curiosity, giving and

receiving feedback and confidence in self-expression.

Still, this study provides robust evidence that media literacy is effective in advancing the academic competencies of adolescents and that partnerships between high schools and national news media organisations can yield important learning outcomes. Future research must continue to explore how teachers develop the capacity to participate in such important partnerships and the conditions that optimise effective participation. This study demonstrates that a journalism education program that involves a partnership between teachers and a public broadcaster can have important benefits to students that go far beyond career, technical and vocational education to address one of the most important competencies our students need for future success: intellectual curiosity, or the ability to "learn how to learn" is the skill that will promote a lifetime of learning, in and out of schools.

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