Merging Online Research Skills and Storytelling in Social Studies Curricula

By Clayton Spencer

Empirical evidence indicates that students can benefit from both practicing online research skills (Zhang & Quintana, 2012) and storytelling (Young & Monroe, 1996), both of which can naturally fit within any middle school social studies curricula. However, these two types of activities require somewhat different skill sets – in one activity, students actively seek out information from an endless supply of sources while in the other activity students are given information from a single source. Merging the two types of activities within a single middle school social studies curriculum may be potentially challenging. This paper will examine the importance of both activities and propose two methods of merging online research skills and storytelling in ways that do not shortchange either activity.

The Importance of Internet Research Skills

Many students get a great deal of information from the internet. However, students do not always use the internet effectively. According to teacher observations, most students do not possess the critical thinking skills needed to make sense of and synthesize information (Purcell et al., 2012). Many adolescents get news from social networking sites (Marchi, 2012), which are easy targets for those seeking to spread misinformation (Center for Information Technology & Society, n.d.). If adolescents are not taught proper online research skills in school, they are at risk of becoming victims of misleading and untrue information that is presented as fact.

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However, these skills can be difficult for students to master. Despite most adolescents growing up with internet connected technology, the nonlinear nature of the internet produces a great deal of cognitive load on users through the split-attention effect (Sweller, 2012). Greene and Azevedo (2007) have also demonstrated in an experimental study that, when conducting online research, students benefit from self-regulated learning skills.

One way that students can develop self-regulated learning skills is through curricula that explicitly includes structured, scaffolded instruction of internet research skills. Zhang and Quintana (2012) developed software that would require explicit steps for students to follow when they viewed websites such as skimming, summarizing, making connections, evaluating, etc. In their study, they found that students that used the software viewed fewer sites but also spent less time searching for websites and spent more time reading in depth (Zhang & Quintana, 2012). This was not due so much to the software as much as to the scaffolds that were built in. The goal of consistent use of such scaffolds would be for students to internalize the behavior, which would allow for them to be more thoughtful consumers of information.

Zhang and Quintana's 2012 study only involved two classrooms and provided minimal information about the participants so it is unknown about whether or not the results can be generalized to wider populations of students or whether other note taking methods (for example, Cornell Notes) would yield different results with the participants in the experiment. However, given that these practices follow broad recommendations of theories that can be generalized to most students, it is likely that most adolescent students

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would benefit from similar scaffolds as those provided in the software that was developed. In addition to fulfilling students' need for developing internet research skills, a structured, scaffolded research-based curriculum can also aid with student motivation by allowing students to drive their own line of inquiry. When students perceive themselves to be in control of their learning, they will be more likely to develop a more internal regulatory style, which can result in higher levels of motivation (Ryan & Deci, 2000).

Importance of Stories

Although developing and using curricula containing ample structured, scaffolded opportunities for students to learn and practice internet research skills is important, it would be detrimental to students if the introduction of research skills came at the cost of student exposure to and interaction with linear storytelling. According to Purcell et al. (2012), students often read information online too quickly to get a sense of meaningful information from the text. So, although some students are skimming many sources, they may be reading very few in depth. This is problematic because students' interactions with stories are filled with potential for student growth (Monroe & Young, 1996).

First, the act of listening to or reading stories can substitute for direct experiences when having direct experiences in the classroom are not possible or practical (Monroe & Kaplan, 1988; Young & Monroe, 1996). Furthermore, Young and Monroe (1996) make a convincing case that humans have an inherent bias for narrative stories and will rely on narratives to describe abstract phenomena.

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Second, stories can be used to help people solve problems and make future decisions. A study by Catrambone and Holyoak (1989) found that people who had read stories before solving a problem ended up utilizing information presented in the story to help them develop a strategy to solve the problem that they were presented with. In their experimental study, four groups of nineteen to twenty college students read stories and were later given a problem to solve. All of the participants were led to believe that reading the stories and solving the assigned problem were unrelated. The participants who read stories that were analogous to the problems that they were asked to solve were more successful in solving the assigned problem.

Third, stories can effectively help students internalize information. Students can identify with characters in stories and that identification can result in students internalizing lessons from stories. Vezzali, Stathi, Giovannini, Capozza, and Trifiletti (2015) found that students in an intervention group who read Harry Potter and identified with Harry reduced prejudices more than students in a control group who did not read Harry Potter. Their study involved three experiments. The first experiment was a pretest-posttest experiment that focused on how students' attitudes about immigrants changed if they read the Harry Potter novels, watched the movies, and identified with Harry Potter. The experiment compared two classes of Italian fifth graders. Results from this experiment indicated that identification with Harry Potter did reduce prejudice, so two more variations of the study were conducted in order to increase the external validity of the experiment. One variation, which examined attitudes about homosexuals, was done with 117 Italian high school students and another, which examined attitudes towards refugees, was done with 71 English university students. All of the studies produced similar results in support of

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the theory that identifying with characters can result in students internalizing lessons from stories (Vezzali, Stathi, Giovannini, Capozza, & Trifiletti, 2015).

Algo and Haidt (2008) found that individuals who watched people do something selfless or demonstrating admirable skill were more likely to want to do activities that helped the world or practice those skills. In their study, they also found that stories with individuals who did actions that were more altruistic were also the most influential in terms of influencing people to internalize behavior. This may also explain the influence that Harry Potter had in the 2015 study by Vazzali and colleagues.

Additionally, according to some theorists, metaphor and analogy play a central role in thought (Hofstadter, 2001). Fairhurst (2011) found that people use metaphors and analogies in the workplace in order to conceptualize and communicate complex phenomena. For example, one senior manager used dating metaphors to describe a wide range of behaviors that were experienced by himself and his colleagues during a merger (Fairhurst, 2011). Stories generally provide more opportunities for students to work with analogies than texts that are strictly informational, which means that students working with stories may be exposed to more analogies that could potentially help them conceptualize and/or communicate information about complex phenomena.

Merging Research Skills and Storytelling

Given the importance of both providing opportunities for focused exposure to linear stories and providing opportunities for students to practice nonlinear research on the internet, neither of these should be added to the curriculum at the expense of the other.

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Both belong in social studies curricula. However, storytelling and research need not merely coexist in the same curriculum. It is possible for the two practices to reinforce each other. For example, when students conduct research, they look for authenticity in their information and much of that can come from stories (Marchi, 2012).

Two methods of incorporating both storytelling and research into a curriculum are, first, to use storytelling prior to research in order to stimulate student-led research and, second, to use storytelling following research in order to provide students an opportunity to reflect on and make sense of their research experiences. These two methods are not mutually exclusive and could be used together.

Solution 1: Using Stories as a Launchpad for Online Research

The first method of combining these two skills is to use stories as a launchpad for online research. For example, students might read a first-hand account of traveling on the Silk Road before researching trade in the Ancient World. Alternatively, students might read about individuals who worked to solve problems in the world, like Malcolm X or Dr. Martin Luther King, Jr., and research ways in which people could solve similar problems in the world. By exposing students to a compelling story before a research process begins, students gain prior knowledge about the content that they will be researching. Prior knowledge can help students reduce cognitive load because students will have more expertise which will potentially allow for them to comprehend new information (Sweller, 2012). Prior knowledge may also increase their intrinsic motivation during the research process (Young & Monroe, 1996).

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Stories can be a great starting point for research, helping students stay grounded. Stories can function as schemata (Bluck & Habermas, 2000) that students utilize and integrate into their own pre existing schemata. When students have relevant information from stories already worked into their long-term memory, cognitive load is reduced and students will have a higher percentage of the working memory available to focus on difficult tasks, such as conducting online research. From a situated cognition perspective, when knowledge is already present in one's mind, it becomes easier for students to comprehend what they read in their research and to make connections between their research and information that students already know from stories (Brown, Collins, & Duguid, 1989).

Stories can make seemingly abstract topics relevant, which can have a positive impact on motivation when it comes to conducting online research. Means, Jonassen and Dwyer (1997) have demonstrated that student perceptions of relevance can have a large effect on student motivation. For example, a student who has read about the experiences of a kid who they can identify with that lived through the Great Depression might be more motivated to learn about the economic policies that led to the Great Depression than a student who has listened to a straightforward informational lecture about business cycles. Additionally, students' ability to transfer solutions from stories to real world problems (Catrambone & Holyoak,1989), for instance, how older adolescent students were able to desegregate diners through nonviolent sit-ins, can also potentially increase student motivation by giving students a sense of control over their surroundings (Ryan & Deci, 2000).

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Finally, students' exposure to relevant stories prior to starting the research process may result in students being more curious about their research topic. Curiosity arises from the gap between the known, which comes from prior knowledge, and the unknown, which may come from research (Loewenstein, 1994). Jones (1979) found that students who believed that they were knowledgeable about a topic rated themselves as being more curious about the topic. Young and Monroe (1996) make a similar case about the role of curiosity (they write about the role of mystery in piquing the audience's interest) and prior knowledge but also add that stories are more engaging than informational texts because stories are in part meant to entertain (Young & Monroe, 1994), which make them an ideal form of media for equipping students with prior knowledge.

Solution 2: Combining through using stories as an end point for research - creating personalized stories about the resource process

A second method for merging online research with storytelling is for students to tell their own stories *after* completing online research. These stories may be stories that students construct using the information gathered during the research process or they could be stories about the student's experience with the research process itself. This method not only allows for students to create their own mental models of the phenomena that they are studying, it can also potentially aide students with metacognitive development and motivation.

Slabon, Richards, and Dennen (2014) have found the use of student generated stories to be an effective tool for student learning in constructivist classrooms (and practicing online research skills would be a constructivist activity). They propose a

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technique called restorying in which students rewrite or retell stories using content specific concepts and strategies. These stories and successive iterations of stories help to anchor student learning, can aid with metacognition (because students need to reflect on their growth and reevaluate their initial perspectives and/or approaches to problem solving), and can be used as starting points for future units. Slabon et al. recommend restorying for classes involving higher order critical thinking and ill-structured problems, which online research activities should involve. It should be noted that their study was based on a qualitative case study design that used a nonrandom sample of twenty five graduate students enrolled in the same course (Slabon et al., 2014), so it is possible that the results are not generalizable to adolescents.

Writing stories and reflections about the research process may aid students not only in metacognitive development but also in motivation by helping students realize that their skills and traits are not fixed. Dweck and Leggett (1988) demonstrated that students who believed that intelligence and skill levels are malleable are more likely to seek challenges while students who believe that intelligence and skill levels are fixed will avoid challenges. As students reflect and revise reflections, they will also have the opportunity to reflect on their own growth, which may influence their views on intelligence and encourage them to seek challenges in class.

Finally, the stories students tell themselves about events (whether they are related to content that was researched or about the research process itself) can impact their worldview (Dingfelder, 2011; King, Scollon, Ramsey, & Williams, 2000). For example, when individuals use themes of redemption when reflecting on negative events, they are more

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likely to experience positive emotions of wellbeing (McAdams, Reynolds, Lewis, Patten, & Bowman, 2001; Turner, Goodin, & Lokey, 2012). If students are reflecting on horrible events in history, such as the Holocaust, redemptive storytelling could help adolescents find constructive ways to deal with the burden of learning about such events. If students are reflecting on their experience conducting online research, they might use redemptive storytelling as a means of building resilience when they struggle to find a source or complete a task on time.

Conclusions and Future Study

In conclusion, both online research skills and storytelling have a place in social studies classrooms and can be used together. Online research and storytelling can be merged by using stories a starting point for online research that provides students with prior knowledge and potential inquiry questions (which, according to cognitive load theory, situated cognition theory, and self-determination theory, can assist with cognitive load, comprehension, and motivation) or student constructed stories can be used following online research to give a productive closure to the activity (which, according to constructivist theories, can assist with students' creation of mental models, metacognition, and motivation). Areas that require further research include whether practicing online research builds better research skills than practicing research in libraries, and whether different modalities of storytelling impact students' identification with characters, internalization of ideas, and/or problem solving skills.

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References

Algo, S.B., & Haidt, J. (2008). Witnessing excellence in action: The 'other-praising' emotions of elevation, gratitude, and admiration. *The Journal of Positive Psychology*, *4*(2), 05-127.

Bluck, S., & Habermas, T. (2000). The life story schema. *Motivation and Emotion*, *24*(2), 121-147.

Brown, J. S., Collins, A., & Duguid, P. (1989). Situated cognition and the culture of learning. *Educational researcher*, *18*(1), 32-42.

Catrambone, R., & Holyoak, K. J. (1989). Overcoming contextual limitations on problem-solving transfer. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 15*(6), 1147-1156. doi:10.1037/0278-7393.15.6.1147

Center for Information Technology & Society (n.d.). *How is fake news spread? Bots, people like you, trolls, and microtargeting.* Retrieved from https://www.cits.ucsb.edu/fake-news/spread

Dingfelder, S.F. (2011, January). Our stories, ourselves. Retrieved from https://www.apa.org/monitor/2011/01/stories

Dweck, C.S., & Leggett, E.L. (1988). A social-cognitive approach to motivation and personality. *Psychology Review*, *95*(2), 256-273.

Fairhurst, G. T. (2010). *The power of framing: Creating the language of leadership* (Vol. 290). San Francisco, CA: John Wiley & Sons.

Greene, J. A., & Azevedo, R. (2007). Adolescents' use of self-regulatory processes and their relation to qualitative mental model shifts while using hypermedia. *Journal of Educational Computing Research, 36*(2), 125-148. https://doi.org/10.2190/G7M1-2734-3JRR-8033

Hofstadter, D. R. (2001). Analogy as the core of cognition. In Dedre Gentner, Keith J. Holyoak, and Boicho N. Kokinov (eds.), *The analogical mind: Perspectives from cognitive science* (pp. 499-538). Cambridge MA: The MIT Press/Bradford Book.

Jones, R. S. (1979). Curiosity and knowledge. *Psychological Reports*, 45(2), 639-642.

King, L. A., Scollon, C. K., Ramsey, C., & Williams, T. (2000). Stories of life transition: Subjective well-being and ego development in parents of children with Down Syndrome. *Journal of Research in Personality*, *34*(4), 509-536.

Loewenstein, G. (1994). The psychology of curiosity: A review and reinterpretation. *Psychology Bulletin*, *116*(1), 75–98.

Marchi, R. (2012). With Facebook, blogs, and fake news, teens reject journalistic "objectivity". *Journal of Communication Inquiry*, *36*(3), 246-262. https://doi.org/10.1177/0196859912458700

McAdams, D. P., Reynolds, J., Lewis, M., Patten, A. H., & Bowman, P. J. (2001). When bad things turn good and good things turn bad: Sequences of redemption and contamination in life narrative and their relation to psychosocial adaptation in midlife adults and in students. *Personality and Social Psychology Bulletin*, *27*(4), 474–485.

Means, T. B., Jonassen, D. H., & Dwyer, F. M. (1997). Enhancing relevance: Embedded ARCS strategies vs. purpose. *Educational Technology Research and Development*, *45*(1), 5-17.

Monroe, M. & Kaplan, S. (1988). When words speak louder than actions: environmental problem solving in the classroom, *Journal of Environmental Education*, *19*, 38-41.

Purcell, K., Rainie, L., Heaps, A., Buchanan, J., Friedrich, L., Jacklin, A., Chen, C., & Zickuhr, K. (2012). How teens do research in the digital world. *Pew Internet & American Life Project*. Retrieved from https://files.eric.ed.gov/fulltext/ED537513.pdf

Ryan, R.M., & Deci, E.L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, *55*(1), 66-78.

Slabon, W. A., Richards, R. L., & Dennen, V. P. (2014). Learning by restorying. *Instructional Science, 42*(4), 505-521. http://dx.doi.org.proxy.lib.fsu.edu/10.1007/s11251-014-9311-z

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Sweller, J. (2012). Human cognitive architecture: Why some instructional procedures work and others do not. In K.R. Harris, S. Graham, T. Urdan, C.B. McCormick, G.M. Sinatra, & J. Sweller (Eds.), *Educational psychology handbook, Volume 1: Theories, constructs, and critical issues* (pp. 295-325). Washington DC: American Psychological Association. http://dx.doi.org/10.1037/13273-011

Turner, J.E., Goodin, J.B. & Lokey, C. (2012). Exploring the roles of emotions, motivations, self-efficacy, and secondary control following critical unexpected life events. *Journal of Adult Development*. Published on-line 06 June, 2012.

Vezzali, L., Stathi, S., Giovannini, D., Capozza, D., & Trifiletti, E. (2015). The greatest magic of Harry Potter: Reducing prejudice. *Journal of Applied Social Psychology*, *45*(2), 105–121. https://doi.org/10.1111/jasp.12279

Young, R. D., & Monroe, M. C. (1996). Some fundamentals of engaging stories. *Environmental Education Research*, *2*(2), 171-187. https://doi.org/10.1080/1350462960020204

Zhang, M., & Quintana, C. (2012). Scaffolding strategies for supporting middle school students' online inquiry processes. *Computers & Education*, *58*(1), 181-196. https://doi.org/10.1016/j.compedu.2011.07.016

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