Failure and Persistent Inquiry: How Teaching a Digital Curriculum Serves as a Model for Lifelong Learning

Any schoolteacher who has embarked on digitizing their curriculum knows that doing so is an invitation to a fresh host of failures you never previously knew possible. The sheer unreliability of Internet connections and software products, the breaking down of physical materials, and the inevitable human errors paired with often novel technological nomenclature are just some of the major reasons why taking that great leap into a digital curriculum can have teachers banging their heads against walls.

While it does not take a veteran teacher to know that lessons do not always work out as planned, teachers who utilize digital tools, most notably computers and the various curricular possibilities available through them, know better than anyone the way our intentions get waylaid thanks to unforeseen disasters. Yet, it is this very experience I have had and watched my students have with technology that moves me to believe research curricula are better off when they are more reliant on digital tools. Kist (2005), citing Tishman and Perkins, notes, “There are metadialogues by the teacher who models working through problems using certain symbol systems” as one “Characteristic of New Literacies Classrooms” (p. 16). In this article I set out to show that it is precisely the guarantee of frequent ongoing “problems” or “failures”—or opportunities to start over, problem solve, and persist in inquiry—that should propel teachers to digitize their research curriculum. Commitment to digital curricula may serve as a model for student researchers in how to be lifelong learners.

As praxes, digital literacies have a rich, albeit relatively short history. Nevertheless, it is important to align any commentary on digital literacies with specific definitions of what is meant by the term since more than one definition exists. I like Jones and Hafner’s (2012) definition of “digital literacies” as referring to, “the practices of communicating, relating, thinking, and ‘being’ associated with digital media.” They assert that developing digital literacies means more than developing the technical aspect of digital tools. It also means using those tools to do something in the social world, and these things we do invariably involve managing our social relationships and our social identities in all sorts of different and unpredictable situations (p. 13).

It is the aspect of “unpredictability” that I believe allows purveyors of these literacies to confront opportunities to shift, problem solve, and become more flexible in their thinking and practice. Engagement with digital literacies is an act of probable elasticity, and the resilience and adaptability it requires means opening up our curricula to unknown “failures” and “successes.”

Outline of Hero’s Journey Unit

The research paper has always been one area of study in my middle school classroom, and in 2009 I asked students to organize their data using a Google Form and publish their research as the homepage of a personal Google Site that could be privately viewed among classmates and teachers. Reilly (2009) has written, “As the conversation about the digital divide shifts from questions of
Given that the youth in my sixth-grade classroom would soon join the ranks of teens increasingly accessing digital media, thinking of ways to scaffold technology use, especially person-to-person online interaction, was a profound concern for me. The following research was conducted in the 2009–10 school year among 64 sixth-grade students participating in a unit familiar to many of us, “The Hero’s Journey.” My efforts to explore the unit in digital spaces with my students that year, and in no small part thanks to the problems we faced as part of that exploration, led me to shift the unit from a personal website approach to publishing to alternative, more communal formats for data gathering and publishing. For this article, I have chosen to focus on the 2009–10 unit alone because it exemplifies the most far-reaching attempts I have encountered in my classroom for digitizing the research paper. Also, because that year’s foray into a digital research process was the most ambitious to date, it offers the best representation of how a multimodal, digital curriculum offers opportunity and insight by forcing participants to encounter failure.

Since students were on the younger end of the middle school spectrum, it was important to me to think carefully about the ways they could acclimate to online tools without being subjected to certain dangers of the Internet, mainly exposure to influences outside of our classroom. A 2015 Pew Study reported by Lenhart found that, “More than half (56%) of teens—defined in this report as those ages 13 to 17—go online several times a day, and 12% report once-a-day use” (p. 1). Given that the youth in my sixth-grade classroom would soon join the ranks of teens increasingly accessing digital media, thinking of ways to scaffold technology use, especially person-to-person online interaction, was a profound concern for me. I found that the inclusivity of the apps we used offered protections to young learners while also affording them authentic experiences within a participatory culture at school. This always was, and still remains, a central concern of mine for incorporating literacy and digital learning. As the New London Group notes in their seminal article on “Pedagogy of Multiliteracies” (1996), “We cannot remake the world through schooling, but we can instantiate a vision through pedagogy that creates in microcosm a transformed set of relationships and possibilities for social futures, a vision that is lived in schools” (p. 72).

Students were a heterogeneous group consisting of two distinct cohorts who enrolled in a public, urban program designated as “gifted” by the city’s department of education. Like the assignment outlined in the 2003 Voices from the Middle article, “Teaching Internet Literacy Strategies: The Hero Inquiry Project,” my as-

**CONNECTIONS FROM READWRTETHINK**

The hero’s journey is an ancient story pattern that can be found in texts from thousands of years ago or in newly released Hollywood blockbusters. This interactive tool from ReadWriteThink.org will provide students with background on the hero’s journey and give them a chance to explore several of the journey’s key elements. Students can use the tool to record examples from a hero’s journey they have read or viewed or to plan out a hero’s journey of their own.

http://bit.ly/1j0Po1R

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signment, “required [students] to use both print and Internet resources to research a personal hero” (Eagleton, Guinea, & Langlais, p. 28). The majority of students used only one Internet resource and one print resource, usually a book or a periodical found in our school’s well-kept library. Before embarking on our research projects, students formed literature circles and read young adult versions of The Iliad, a list of which may be found at the end of this article. While studying these texts, whole-group discussion was focused on teaching the hero’s journey, drawing especially from Joseph Campbell’s depictions of heroic journeys in The Hero with a Thousand Faces and Campbell’s video interview with Bill Moyers, collected in book form as The Power of Myth. Upon completing their young adult novels, students were charged with selecting a personal hero to investigate and to describe their hero’s journey through the language and the arc of Campbell’s description. About half of each class chose to write about a Greek god or goddess, not surprising given our study of ancient Greece and The Iliad, specifically. Students were savvy enough to realize that these selections often fit easily into the hero’s journey arc. The other half of the class chose to write about anyone from pop figures like Paul McCartney to animals like Balto the dog to fictional characters like Alice from Alice in Wonderland to religious icons like Moses.

**Thoughts on Digital Innovation**

Students were asked to create a Google Form on the home page of their personal Google Sites, which had been created for the purpose of our work in the humanities and used for class purposes prior to the hero research project for publishing other written and art assignments, as well as ongoing blogging. A Google Form is a web-based application that can be created by anyone with a Google account that may be used for collecting specific information. The information collected is gathered in a conjoined spreadsheet, where it may be sorted and further categorically organized. Manovich explains that, “A database should not be conceived of as just a random collection of data, but as a ‘structured collection of data’ from which data can be easily and efficiently searched for and retrieved” (qtd. in Mukherjee, p. 115). In other words, the tool, Google Forms, had the potential and was pedagogically chosen because it afforded us different ways of thinking about the data and the interconnectivity of data. Although students were used to entering data into a Google Form and using the collected material by sorting the connected spreadsheet from previous work in our classroom, students needed to stretch their practice a little further by creating their own Google Forms for collecting research data about their chosen hero. Students were given parameters for what materials should be collected, including resource information as required by Modern Language Association citation protocol (Title, author, publication information) and sections for typing in and labeling quotes as a particular aspect of the hero’s journey (see Figure 1). Students could watch a screencasted tutorial created via Jing on how to build their Form and look at my teacher example on our classroom website in order to master this foundational tool for collecting data for their research projects.

Using the Google Form to organize and collect data was one way I sought to innovate the research project process, but with trepidation. I was all too aware of the notion put forth by Lankshear and Knobel (2006/2010) that “teachers often look for ways of fitting new technologies into classroom ‘business as usual,’” and that “the task of integrating new technologies into learning is often realized by adapting them to, or adding them onto, familiar routines” (p. 56). I was aware of, and even worried about, the way our use of Forms might be a new dog doing the same old tricks. In fact the constant threat of falling into the trap that Lankshear and Knobel describe is one way in which failure may be meted out when teachers play with digital curriculums. In one way, the collection aspect of the Form was no more or less novel than a good graphic organizer on paper, although it looked a lot fancier and preemptively had students type quotes that might appear in their essays later. However, the gem

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of this research tool, and the main reason why I found it a transformational example of a new literacy, was its affordance at organizing, categorizing, and grouping data. The type of databases we used for our work were relational, in the sense that, “data [were] parsed in tables consisting of rows and columns, with each record (in a row) consisting of a set of inter-related entities (in columns)” (Mukherjee, 2014, p. 116). The ability to shift the data, via the digital tool, changed the way we thought about data. I would add that our exposure to this tool had an impact on my own experience and understanding of data beyond the research project, too. I used a similar database to conduct dissertation research based on the work I conducted with my students that year.

In addition to this tool for collecting and organizing their research data students were required to publish their research papers, along with accompanied and attributed visuals, on their personal Google Sites. This task involved greater knowledge and practice of writing, inserting images, and formatting materials on their Sites. Although some MLA formatting guidelines were necessarily forgone because of the constraints of Sites formatting, students were still accountable for others. For example, it was impossible at the time to double-space within text boxes, and because papers were published in a continuous stream on a single page, students were not responsible for correct page formatting or title page construction. On the other hand, students were able to indent paragraphs, use quotation punctuation, and format bibliographies. The process of learning which MLA formatting guidelines were impossible to account for was a collaborative task for me and for my students. The question of whether Sites publication offered benefits great enough to justify limiting our ability to practice MLA formatting is just one example of how the plusses and minuses of digitizing the curricula figured into my pedagogical choices. At the same time, it must be acknowledged that MLA formatting guidelines were not intended for mediums like Sites pages. As such, it would not be fair to consider these problems a failure of the online medium.

**Encountering and Moving through Failure**

Students were often involved in a collective anxiety about mastering traditional requirements as they were written in my rubrics and composing works online, which would frequently conflict with the realities of our digital milieu. I was unaware of this conflict in the beginning. In Figure 2, a screenshot of one student’s Site home page and his hero’s journey research project, you can see his panicked message to me in the scroll bar on the left. “Ms. H,” he writes, “The reason that the indentations are weird is it made my [sic] make an extra line.” I file this note under ways conflicts between a digital curricula and a traditional literacy program may make perfectionist
students and teachers acutely aware of that which we perceive as failure.

Another regular “failure” that we found in our pursuit of these projects was the unreliability of certain visual images to remain active and visible on our Sites. Selected images would at times appear and disappear, for reasons that seemed more supernatural than technical. I found that the more students used Sites, the more comfortable they became with solving these types of problems. Frequently students would learn the source of particular errors and assist classmates to ameliorate common issues. Whole context-specific languages and vocabulary developed around addressing these failures, and generally, with me sympathetically at the helm of the projects, we learned together when to throw our hands up in the air, give up, and move on from certain technological sinkholes.

Kist (2005) says that one thing he found among his case-study classrooms was that “pioneering teachers put a great deal of emphasis on teaching the process of working, inevitably including a great deal of collaborative work, above the product” (p. 14). There are two points to be made in light of this observation. First, the privileging of “the process of working” over products is, in our current academic climate, not the norm. Second, I would wager that there are multiple reasons teachers emphasize work process over products in a new literacy classroom. For one, these teachers are likely committed to a classroom engaged in participatory culture, which is, therefore, a collaborative one. It is sometimes difficult to capture the good work in a collaboration, which is not always reflected in products. Also, speaking for myself, a digital curriculum is one familiar with broken products. Yet the brokenness of products does not, and should not, I file this note under ways conflicts between a digital curricula and a traditional literacy program may make perfectionist students and teachers acutely aware of that which we perceive as failure.

**Figure 2.** Students get concerned when the digital tool conflicts with assignment formatting instructions.
necessarily take away from students’ work over the course of the school year, nor should it even speak ill of the product itself. It is, at times, impossible to measure learning engagement and imagination with certain kinds of products. Erstad (2013) has written, “We need to act in order to develop models for 21st-century challenges that are better suited than the industrial models that our schools are based on today” (p. 2).

Teachers engaged with multimodal and digital literacies may be recognizing a paradigmatic shift around what is valuable as a result of perceptions about our world, seen through their particular lenses.

Modeling Inquiry Toward “Failure” and “Success”

It should go without saying that the initial perceived quality of the digital tools to improve the curriculum and infuse student learning with more meaning is paramount to the decision to try something that may not have been tried before. It is not merely the guarantee of up-close encounters with failure that should propel teachers toward a curriculum with more integrated technology. It is just, in my experience, an added attribute. I agree with Hutchison and Woodward (2014), who suggest that “teachers choose a nondigital tool if, on reflection, they discover that using a digital tool will not make a strong contribution to their instruction or if they are unable to locate a tool that will appropriately support their learning goal” (p. 458). The tools themselves ought to allow for something greater than the work and/or the learning might otherwise have been. I have practiced with new tech ideas only to discover that they serve no added purpose and should therefore be retired. This, too, is a valuable experience.

I remember in one faculty meeting sharing some of the digital assessments I had been playing with over a fall semester. I admitted that, after experimenting with a multiple-choice and essay test via Google Forms, which I used hoping that grading would be streamlined, I decided against that format for future use. I explained to my colleagues that the cons of ensuring students could not cheat on the multiple-choice sections at their computers, the downside of keyboarding the essays for slow typists, and, importantly, the fact that my hypothesis failed and that grading Google Form answers in a spreadsheet really wasn’t more efficient led me to discard the practice. One teacher was incredulous. “Why did you bother?” she wanted to know. “What a waste of time,” she said out loud. But the project was as little a waste of time in digitizing my curriculum as projects with more impressive results, like video production or class wikis or published podcasts. Put simply, we do not know which of our innovations will produce the results we seek unless we try. Failure is as important a part of inquiry as the opposite of failure, whatever that may be.

My teaching is my research, and every inquiry into how to make my teaching better is an opportunity to model inquiry. Part of innovation is failure. We learn that lesson even when we go out on a limb to try something new that has nothing to do with technology. It’s just that digital curricula, in my experience, force us to confront failures more frequently, and for that I think it should encourage us to embrace a digital curriculum and more uses of technology in our classrooms, not less. On the one hand, literacy teachers continue to be told—by our national standards, our professional organizations, and our teacher accountability benchmarks, for example—that using technology in our classrooms is important. On the other hand, the fallibility of technology means that by fulfilling our obligations to structure classrooms as spaces open to multiple literacies we are also opening ourselves up to additional “unpredictability.” If the critical dissonance between the myths and realities of digitizing our literacy curricula helps us more justifiably live with failure in our classrooms, it may be one productive way to change the discourse, not just on “failure,” but on “success.”
YA Novel Adaptations of The Iliad

References

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Candidates Announced for Middle Level Section Elections; Watch for Your Ballot
The Middle Level Section Nominating Committee has named the following candidates for Section offices in the NCTE spring elections:

**For Members of the Middle Level Section Steering Committee** (two to be elected; terms to expire in 2020): Frances Chamberlain, Tracy, California; Corinna E. Crafton, Edison, New Jersey; Jeremy Hyler, Fulton Middle School, Middleton, Michigan; Justin Stygles, Rowe Elementary School, Norway, Maine.

**For Members of the Middle Level Section Nominating Committee** (three to be elected; terms to expire in 2017): Heidi Branch, Belmont Ridge Middle School, Leesburg, Virginia; Amanda Lickteig, Emporia State University, Kansas; Janet M. Parker, Delta State University, Cleveland, Mississippi; Robyn Seglem, Illinois State University, Normal; Shelly Shaffer, Eastern Washington University, Cheney.

Members of the 2015–16 Middle Level Section Nominating Committee are Holly Spinelli, City-As-School High School, New York, New York, chair; Jason Augustowski, Belmont Ridge Middle School, Lansdowne, Virginia; and Laura Pope, Baltimore City Community College, Maryland.
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Using Discipline-Based Texts to Build Content Knowledge
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This book addresses head-on the reality that teaching reading and teaching content can, and should, go hand in hand to support subject area learning. Drawing on research in human cognition, reading development, and discipline-specific pedagogies, Heather Lattimer provides practical, classroom-tested approaches to helping students access and critically respond to content-based texts, such as selecting texts that enhance student learning, using strategies to help focus student readers before they engage with texts, and supporting comprehension in content areas through discussion and writing. 159 pp. 2010. Grades 5–10.
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