

Handbook of Research on Digital Tools for Writing Instruction in K–12 Settings

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Chapter 22

Using ResponsiveDesign as a Shared Approach to Address the Challenge of Composing with Digital Tools

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ABSTRACT

In this chapter, a team of two university and four school teacher-researchers, members of a Liquid Networked Innovating Community (LiqNIC) called the Cultural Landscapes Community (CoLab), draw on an interactional ethnographic perspective to examine the theoretical roots of the CoLab, how it emerged as a LiqNIC, and its impact on their professional learning. By constructing four telling cases, the team investigates how they drew on the CoLab's shared theory of action, ResponsiveDesign, to innovate their practices teaching writing to incorporate new media and digital tools (Twitter, Googledocs, Weebly, Edmodo, Prezi, Storify). Analyses reveal the local ways each teacher drew on ResponsiveDesign's iterative cycles of exploring, envisioning and enacting as habits of action. In and through the local ways they harnessed ResponsiveDesign to integrate digital tools into their writing instruction, the teacher-researchers developed habits of mind as prototypers and innovators of teaching practices. Analyses also reveal how ResponsiveDesign's core theoretical traditions were lived out in the habits of action and habits of mind that the teachers developed.

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USING RESPONSIVEDESIGN AS A SHARED APPROACH TO ADDRESS THE CHALLENGE OF COMPOSING WITH DIGITAL TOOLS

You can't effectively jump ahead when you want to. But when the Web of supporting technological species are in place, an invention will erupt with such urgency that it will occur to many people at once. (Kelly, 2010, p. 155)

In *What Technology Wants* Kevin Kelly (2010, p. 155) explains that for inventions and technological advances to become popular, the larger cultural group, or societal structure must find a collective need for them. Digital tools permeate our everyday lives and our students are actively using them. Out of school, students are digitally connected, engaged and thriving in affinity communities in local and distant places (Ito et al., 2010), yet, in school, students are often asked to “power-off” and put away their connectivity tools and technologies because they may distract them from the core subject and the teacher. Thus, there is a disconnect in the composing process between cultural practices valued by students out of schools and those valued by teachers in schools. We believe there is a way to re-see this apparent split and successfully reconnect these worlds.

We are living in a time of major cultural shifts, pushed along by the development of digital tools, which surface tensions around whose knowledge counts; between the writing and knowledge generation processes valued in previous generations, and, their newly and ever evolving counterparts made possible with new digital media functions and forms. In this chapter, we make visible the shared conceptual approaches, ones steeped in ethnographic traditions and design-centric principles, that fellow teacher-researchers and co-authors are harnessing in order to navigate these shifts in instruction and learning with new media. In order to do so, we make visible how the shared theory of action, ResponsiveDesign, that guides

their work, manifests itself in locally responsive ways meeting the particular needs of respective classroom cultures.

In a recent study, Purcel, Heap, Buchanan & Friedrich (2013) report that while teachers in fact do recognize the value of students using digital tools, they find themselves in a cultural shift connecting traditional forms of composing with today's functions of digital media and tools. This seeming disconnect between composing in traditional and new media forms and functions that teachers and students experience in schools is consistent with the findings by Mizuko Ito et al. in their three-year ethnographic study *Hanging Out, Messing Around and Geeking Out* (2010). Findings reveal how students readily use digital tools in ways purposeful to them: to communicate, compose multiple texts and capture and share information with peers. And in doing so, youth are co-constructing non-physical local to global learning communities, ones fluid and temporal, which are user-driven. Ito et al. help us see that the seeming infinite horizon made visible to us by new media, its unending use for problem-solving and innovating, are not fixed and physical, rather they are permeable and shape-shifting cultural landscapes acted, written and talked into being by people all over the globe. This robust reality of the social-construction of new media spaces outside of schools are ones driven by affinities and shared needs of its users. It is both the reasons for and ways in which youth go about creating intentional learning communities that can inform how we see, or, need in order to re-see, those existing practices transforming learning inside formal school settings. We believe this separation between school and community, and how technologies are used within them, is one of the biggest cultural problems facing schools, educators and students.

In and of themselves, digital technologies are not a solution; they are inert and can be as ineffective as the weakest worksheet. In order for technologies to flourish, they require an innovating culture, what Kelly calls a “Web of supporting

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technological species” (2010, p. 155), one that recognizes the technologies’ immediate value and further refines those technologies towards particular uses.

Although access to digital technologies is important, leaving the discussion there is not enough. Largely absent from discussions on curricular reform (Anderson-Levitt, 2002; Crocco & Costigan, 2007; Cuban, 1993) is attention to valuing, creating and sustaining teachers who innovate, and the cultures in which they and their students can grow and thrive. In other words, the cultural settings teachers and their students co-construct in schools must be ones where participants are actively connected to each other where ideas and interchanges thrive between schools and their larger networks outside of school; cultural settings where participants harness digital technologies in purposeful ways to facilitate meaning-making and processes that promote advancements in student and teacher learning.

In part, digital literacies require a familiarity with various technologies (i.e. Twitter, Wordpress, Drive, Facebook). Digital literacies are capacities for using those applications to achieve some rhetorical goal - to collaborate, to compose; therefore, digital literacies must transcend any particular application. Digital literacies expect control over and fluency with the emerging tropes and metaphors of digital spaces - of liking, sharing, and commenting. Digital literacies are not a set of skills, but a way of being; a way of interacting with and learning from the social world in and through digital media. Being digitally literate, therefore, forces us to recalibrate our notion of audience. Audience is a more dynamic force - interactive and ready to engage with the author. The relationship is more dance, than passive reception. Digital literacies cracks open the myth that writing and reading for that matter, happen in isolation.

National and state curricular reform initiatives are asking educators to place writing, reading, speaking and listening as essential practices to everyday meaning-making processes that support

college and career readiness. In our chapter, we tell the story of how four innovating classroom teachers and their students are transforming their everyday school places into intentional and innovative learning cultures. In particular, we will make visible the significance of our theory of action, ResponsiveDesign (Córdova, Kumpulainen, & Hudson, 2012; Murawski & Córdova, 2012). We argue that ResponsiveDesign enables us as teacher-researchers to accomplish two necessary and mutually-informing aspects of professional growth: how we work individually in our classrooms to innovate, and, how we shape and are shaped by a larger network of teacher-researchers that supports and learns from us.

If we are to learn how teacher-researchers featured in this chapter have come to develop inquiring and innovating stances to their teaching, we recognize the critical importance to account for the larger network of teacher-researchers, the Cultural Landscapes Collaboratory Summer Institutes, where the four teacher-researchers, co-authors, first formulated (Vygotsky, 1987) how to use ResponsiveDesign to develop prototyping approaches to teaching. However, space does not permit us to examine that dimension in this chapter. In order to see the impact on teacher practice enabled by those summer institutes, therefore, we narrow our focus to analyze how teacher-researchers drew on ResponsiveDesign, habits of action first learned in the summer institute, and reformulated (Vygotsky, 1987) them as habits of mind within their teaching settings. By narrowing our focus to the classroom level, we can examine the ways individual literacy teachers have taken up and used ResponsiveDesign to navigate successfully through their uncertainty and failures on the pathway to creating powerful digital learning spaces.

Before proceeding, we offer a minor caveat, to make explicit how to think about our work’s importance, specifically the principled ways in which teachers can jointly create professional learning spaces harnessing ResponsiveDesign for teaching

each other by researching their educational practices. We want to make visible, that although our work can be viewed as work that a “Professional Learning Community” does, we intentionally, as the Cultural Landscape Collaboratory, do not use that term to describe ourselves or the work we do. In today’s schools, the language of Professional Learning Community (PLC) is pervasive, and the research literature (Louis & Marks, 1998; McLaughlin & Talbert, 2001; Mitchell & Sackney, 2000; Stoll, Bolam, McMahon, Wallace, & Thomas, 2006) is abundant describing the diverse ways these phenomena, all called the same thing yet looking very different, manifest themselves in K-12 school settings (Slegers, den Brok, Verbiest, Moolenaar, & Daly, 2013). Thus the term PLC and what counts as doing a PLC cannot be taken for granted.

From our interactional ethnographic perspective, we recognize that classrooms, PLC’s, school communities, and any organized human activity, are cultures-in-the-making, meaning that they are not fixed or identical phenomena. Therefore, our interactional ethnographic conceptual approach to construct four telling-cases (described later), deep-dives into four different teachers’ practices, is important in order to reveal the situated nature of how teachers harnessed ResponsiveDesign as shared theory of action. From this perspective we make visible the principled ways teacher-researchers came to understand their practices and innovate them. This close look at *the what the work looks like*, and *the how of teaching and doing it*, pushes us to examine both the how ResponsiveDesign works and why it is making a difference for educators navigating the disconnect between older compositional functions and forms with their prospective counterparts in new media. Noteworthy for leaders doing PLC work is the guidance that our approach provides to develop a shared language for naming, and a theory to guide action for collaborating, innovating and learning.

BACKGROUND

The authors of this chapter are university teacher educators (Ralph and Ann) collaborating with four classroom teacher-researchers (Jason, Donna, Jessica and Jeffery) who work across diverse geographical, linguistic and socio-economic settings. We are members of a larger community of teacher-researchers, the Cultural Landscapes Collaboratory. As such we work in educational settings to innovate practice guided by our theory of action, ResponsiveDesign. Through this theory we conceptualize ourselves as prototypers of practice, and we have been curiously attending to and learning with and about digital technologies and their roles in literacy learning.

Ralph Córdova, first author, initially founded the Cultural Landscapes Collaboratory in 2004 (Córdova, et al., 2012; Córdova & Murawski, 2009/2010) to become a multi-professional learning community that conceived of students, parents, teachers, community members and disciplinary experts as co-experts and co-teachers. In naming this community as the Cultural Landscapes Collaboratory, Córdova brought together two disciplinary perspectives to the center of its work. The first perspective is an ethnographic one that draws on theoretical traditions from cultural anthropology (Green, Dixon, & Zaharlick, 2002) to understand settings inside and outside of schools as cultures-in-the making. The second perspective recognized the fields of geology, geomorphology and cultural geography because they name and understand the physical and human processes that both shape landscapes and how these processes can give us guidance to document, notice and analyze them, which lead us to navigate and shape them.

The Cultural Landscapes Collaboratory is also informed by the National Writing Project’s (Lieberman & Wood, 2003; National Writing Project & Nagin, 2006) teachers-teaching-teachers philosophy. The National Writing Project (2013)

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believes that: “writing in its many forms is the signature form of communication in the 21st century. The NWP envisions a future where every person is an accomplished writer, engaged learner and active participant in a digital, interconnected world.” Since 1974, the NWP has created a landscape where teachers learn to lead each other by examining their local classroom based practices and then sharing these practices with other teachers. Over time, a teachers-teaching-teachers network has grown within every state.

In 2009 the Cultural Landscapes Collaboratory began to evolve when members visited the d.School at Stanford University. The d.School is an interdisciplinary learning space located at Stanford where undergraduate and graduate students work together across all disciplines. The d.School draws on a design-thinking approach, an ethnographic process that invites users to generate ideas, insights and innovation. This was a time of rapid growth in our understandings of how teaching and learning processes intersected with ideas from art and design, and led us to name and articulate our own theory of action and innovation, which we named ResponsiveDesign (discussed in the next section). It was during this time that we adopted the refined name “CoLab” as the public face of the Cultural Landscapes Collaboratory.

The naming of ResponsiveDesign was new. However, the reason design-thinking resonated with us was that those habits of action that lead to innovation, inherent in design-thinking, were not new. The same inquiry stances and actions that are so deeply embedded within design-thinking have a long history in educational research, well documented by Cochran-Smith and Lytle (2009, p.37-59).

From that naming of ResponsiveDesign as our theory, and harnessing it in our work that we did in our schools and museums, we transformed our previous understandings of the Cultural Landscapes Collaboratory from a multi-professional learning community into our present understanding of the CoLab as a Liquid Networked Innovating

Community (LiqNIC). The notion of a “liquid network” (as cited in Johnson, 2010) was a metaphor first used by computer scientist, and founder of the field of artificial intelligence, Christopher Langton. Science writer Steven Johnson drew on Langton’s metaphor of a “liquid network” to describe the kind of networked environment that allows for new configurations to emerge, often through random interactions, and yet the network remains sufficiently stable to allow growth and innovation (Johnson, 2010, pp. 45-66).

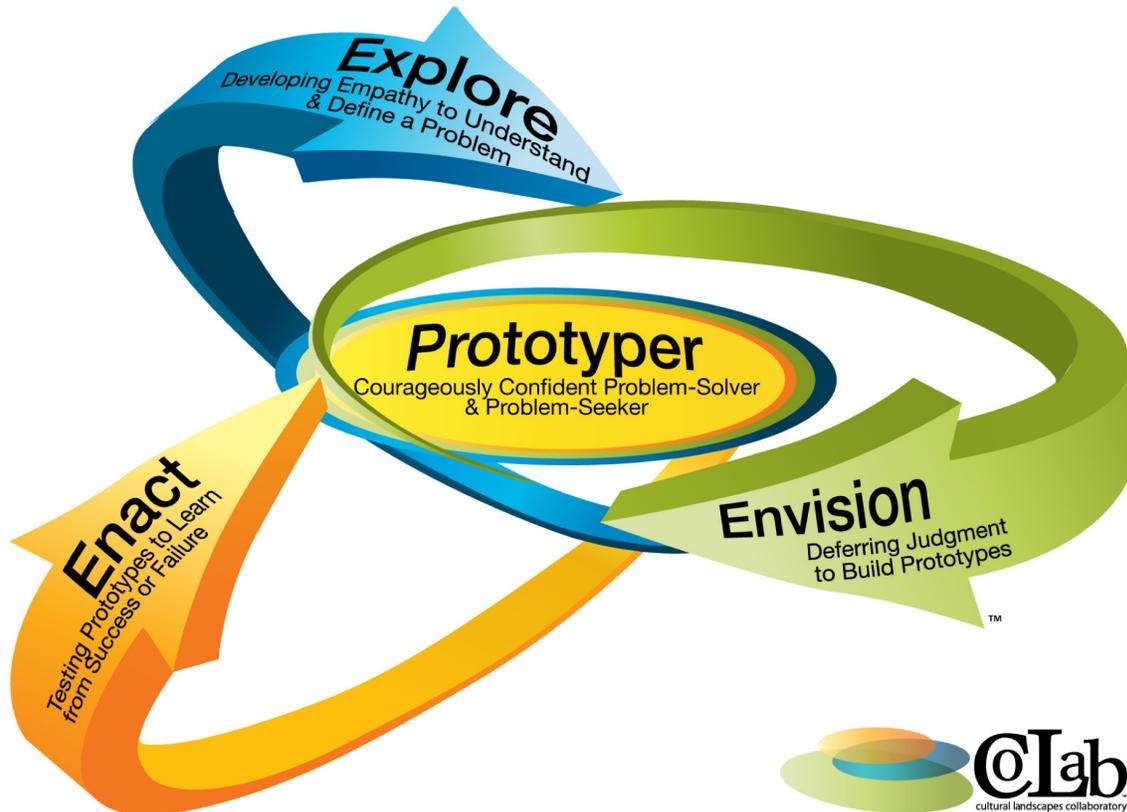
The CoLab is a particular kind of LiqNIC with diverse members working in multiple places, and what keeps the network stable is the shared theory of ResponsiveDesign (Image 1). ResponsiveDesign guides us to innovate solutions to problems inherent to curricular and educational practice by becoming prototypers who courageously and confidently seek and solve problems.

Embracing this conceptualization intentionally uses language and assumptions about growth and learning that both introduce and fuel a “growth mindset” (Dweck, 2006). With this prototyping frame, three actions of exploring, envisioning and enacting provide an iterative and recursive pathway toward innovation. Exploring has a purpose of developing empathy to understand and define a problem. Envisioning requires us to defer judgment to build prototypes. Enacting then invites us to test prototypes to learn from success and failure. As we move through and between each of these phases, our interactional ethnographic stance (described in the next section) helps us attend carefully to how those actions worked to support and/or constrain teachers innovating upon practice. Thus, the CoLab brings ResponsiveDesign to all situations through careful activity-organizing protocols which help to both sustain the learning momentum of building to learn, and honor the theoretical roots of our work in human-centered learning and collaborative growth.

The scope of this chapter focuses on the particular ways four teacher-researchers drew upon ResponsiveDesign, the CoLab’s theory of action,

Figure 1. Responsive design

ResponsiveDesign™



in order to navigate and mitigate their respective local challenges in harnessing digital media functions and forms as tools for writing to learn. The presentation of the analyses reveal the shared ways in which ResponsiveDesign's phases of exploring, envisioning and enacting manifested itself in their local work, and how they innovated their teaching practices as a result of it.

Conceptual Underpinnings and Methodological Perspectives

Our emergence out of NWP's principles is paired with a deep intellectual grounding in the work and interactional ethnographic research approach (Green, Dixon, & Zaharlick, 2002) of the Santa Barbara Classroom Discourse Group (SBCDG),

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a school/university collaborative research partnership with almost a 20-year history (Dixon & Green, 2009) of which we draw on an Interactional Ethnographic Perspective (Dixon, Green, & Brandts, 2005; Green, et al., 2002). The concept, from an anthropological perspective, which in part serves as the epistemological base for interactional ethnography, posits classrooms as cultures or dynamic cultures-in-the-making. From this perspective, members (teachers, students, families, others) of these cultures-in-the-making construct together patterned ways of being, knowing, and doing through their actions and interactions (Santa Barbara Classroom Discourse Group, 1992). These classrooms as cultures/cultures-in-the-making notion made sense to us as teacher researchers (Córdova, 2008; Yeager, Floriani, & Green, 1998) and continue to make sense in the context of the complexity of everyday life in and out of classrooms. Our perspective is informed both by what we have experienced in our own classrooms (K-20) and by a view of ethnography as a way of thinking, knowing and acting (as epistemology), rather than just a method (Anderson-Levitt, 2006).

Rather than doing ethnography, our four teacher-researcher colleagues and we take up an ethnographic perspective as a way of looking at our own work and the work of others, including those within and across disciplines. An ethnographic perspective enables teacher-researchers to understand how disciplinary knowledge and practices are the result of actions of people and how they can 'take up' the actions associated with particular disciplines (Yeager, et al., 1998, p. 16), as well as see the relationships across disciplines. We want teacher-researchers to learn that they and their students are always in the process of becoming; for example, becoming writers, scientists and historians are processes in which we are always engaged (Yeager & Córdova, 2010, p. 221), and so we need conceptual ways for looking both from the outside and the inside in order to understand what the process and that work looks and sounds like.

In addition, in order to further attend to what people say and do, how they act and interact and what they learn and how they interpret their everyday lives, we draw on ideas from literary theory (Bakhtin, 1986) and critical discourse analysis (Fairclough, 1992; Ivanic, 1994) to conceive of people's shared experiences as socially constructed texts, which they shape and are consequently shaped by.

An ethnographic perspective pushes us to contend with the nature of how knowledge is constructed in our classrooms, what counts as literacy and disciplinary knowledge and, ultimately, whose knowledge counts. Anthropologist, Dell Hymes, reminds us that:

[O]f all forms of scientific knowledge, ethnography is the most open, the most compatible with a democratic way of life, the least likely to produce a world in which experts control knowledge at the expense of the studied. The skills of ethnography are enhancements of the skills all normal persons employ in everyday life. ... [I]t provide[s] for making explicit relationships and patterns that members leave implicit. ... Ethnography in short is a disciplined way of looking, asking, recording, reflecting, comparing and reporting. (Hymes, 1981, p. 57)

From this point of view, therefore, teachers who draw on ethnographic traditions to systematically examine their teaching practices can be seen as engaged in the intentional documenting, describing, noticing and naming of the work they do, with the intention of analyzing and announcing what they learn. This DNA embodies habits of action that nurture habits of mind that are deeply rooted in the interactional ethnographic tradition out of which the CoLab emerged.

Through four Telling Cases (Mitchell, 1984) each teacher-researcher will make visible how they harness digital technologies to create an intentional community of writers across grades 7-12. The case study, Mitchell argues, is a form

of ethnographic inquiry that focuses on particular chains of human activity and events in order to make theoretical inferences:

[c]ase studies are the detailed presentation of ethnographic data relating to some sequence of events from which the analyst seeks to make some theoretical inference. The events themselves may relate to any level of social organization: a whole society, some section of a community, a family or an individual. What distinguishes case studies from more general ethnographic reportage is the detail and particularity of the account. Each case study is a description of a specific configuration of events in which some distinctive set of actors have been involved in some defined situation at some particular point of time. (p. 222)

From this perspective, ethnographic case studies constitute telling cases; that is cases that make possible theoretical inferences that focus on particular dimensions of the social and cultural life of members of particular social groups (Sheridan, Street, & Bloome, 2000).

In each Telling Case, the teachers make visible how they utilized ResponsiveDesign to prototype and test ways to harness digital technologies in order to create intentional communities of writers across grades 7-12. Ranging in years of teaching, the teacher-researchers demonstrate the ways in which they came to identify a challenge in their teaching regarding digital technologies, and through their ongoing reflective stance when looking back at their decisions and actions, they make visible the seeming invisible logic of inquiry-- the recursive ResponsiveDesign process--that supported their breakthroughs. ResponsiveDesign's logic of inquiry, a technology of its own, enabled the teachers to develop small resolution prototypes of digital technology use for literacy learning, which they then enacted in their practice.

All four teachers became members of the Co-Lab by participating in an Invitational Summer Institute (ISI), supported by an ongoing grant from the National Writing Project. Jeff Hudson,

a high school English teacher in a suburban Midwest city and member with the longest affiliation with NWP and CoLab, has taught 23 years and first participated in the ISI in 1997. Jason Sellers, a technology literacy educator in a French language immersion school in California, has taught four years and participated in the 2009 ISI. Jessica Pilgreen, in her 11th year of teaching, is a high school English teacher in a rural school and joined the group after participating in the 2010 ISI. Donna Goetz, in her fourth year teaching, is an English teacher in a semi-rural area Catholic private school and participated in the 2012 ISI.

Each of the four Telling Cases (see Table 1) is presented in the first-person by the teacher-researchers in a format that makes visible the phases of prototyping that they experienced by harnessing ResponsiveDesign's phases of explore, envision and enact in order to solve a problem of practice centered on writing instruction with digital tools. Each telling case will conclude with the teachers discussing what they have learned by actively drawing on ResponsiveDesign in their teaching practices, and what the CoLab community has meant for their professional growth.

Telling Case One: Jason Sellers's Story of Revising Writing and Providing Feedback in a Digital Realm

Jason, a high school teacher, has been teaching four years. He became a member of the CoLab in the summer of 2009, when he taught in a rural high school in the Midwest. He now teaches in a French immersion school in the Bay Area in California. His story details the intentional actions he took to address a question in his practice: In what ways can I support students during the revision process? He makes visible the ways he innovated upon physical writing-to-learn processes of revising by moving students to a digital environment engaging them in the actions of providing and receiving feedback on writing pieces.

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Table 1. Telling cases of teacher-researchers using digital writing tools

Career Phase	Teacher and Setting	Need or Problem	Digital Tools Explored During Prototyping of Teacher's Practice	Impacts on Writing and Learning	How Teachers Harnessed RD
Novice teacher learning and exploring literate practices and digital tools together.	Jason Sellers, International School (7-12th grade), Academic Technology Coordinator.	Teacher's written feedback on writing rarely used.	GoogleDocs.	Tracking student revisions made visible misconceptions about revision process.	Bold willingness to build and try new practices; learn from failure and uncertainty as well as from success; and name and reflect on outcomes in order to set new forward path.
Intermediate stage (10 years) intentionally designing digital learning space.	Jess Pilgreen High School (9-12th grade), English Teacher.	Educational potential of technology not harnessed for full school-community connection.	Weebly.com	1. Increased family involvement and communication. 2. Family sees documented examples of work; student develop clarity about assignments.	Seeking feedback; not worrying about building slowly; building Website with students helps envisioning of more possibilities.
Novice teacher exploring possibilities her 4th year.	Donna Goetz High School English Teacher.	Students seeking and providing real-time feedback of text comprehension.	Twitter creates real time feedback when reading during class Edmodo allows students to blog reflections when reading.	Through use of digital technologies which students already embrace we create A culture of learning. Bending rules to allow students to use cell phones in class has made a tremendous difference in the attitude of students to writing. School is moving to Bring Your Own Device policy [BYOD].	Explored what students know, envisioning different possibilities within a school culture and then enacting prototypes to build this culture step by step.
Very experienced teachers with sophisticated literate practices (WP Co-Director).	Jeff Hudson High School (9-12th grade), English Teacher.	HS students claim they "just don't read" yet they read home texts. Innovating teaching practices begins to crack dichotomy.	Twitter.com Prezi.com Storyify.com	1. Selected writing from someone and built upon it. 2. Literature discussion taken beyond plot description to explore pedagogy and learning. 3. Rich character analysis through noticing and wondering (across different sections of the class).	Guides him to hear his students' comments about reading and then intentionally explore, envision, and enact a prototype to address it. Confident, and open use of RD as innovation process.

Explore: Developing Empathy to Understand and Define a Problem

Currently, I serve as the Academic Technology Coordinator at the French American International

School in a coastal city in California, where I coach teachers in grades 6-12. Prior to this role, I taught high school English for three years, so last fall, when a colleague took maternity leave, I was asked to step in as a short-term substitute

for her 10th grade English class. The focus during that period was an essay-writing unit in which our class studied and composed essays in several styles, including personal, compare and contrast, descriptive, explanatory, analytical and opinion. In my previous experiences as a writing teacher, I had focused on teaching pre-writing strategies and producing a rough draft, but when it came to polishing up papers into a final draft, I noticed students routinely struggled with revision. I wanted to explore practices to strengthen this aspect of the writing process during the essay-writing unit.

In previous years, I noticed the corrections and questions I posed in the margins of my students' essays often went overlooked, or were applied without consideration in the final draft. I wondered whether this might be the result of the misunderstandings about the purpose of these student and teacher exchanges. Did my students view the comments as feedback intended to help them refine their writing, or as merely the justification for a grade? Recognizing that my role as the primary audience for my students' writing was insufficient, I was curious about what might happen if students were to collaborate on revisions with their peers. Would writing for their peers give students more incentive to produce higher quality, interesting work and strengthen the revision process?

Envision: Deferring Judgment to Build Prototypes

A recent study on daily access to laptops in two diverse school districts found that "more than 70% of all students agreed that they wrote more and revised or edited their papers more when they used their laptops" (Zheng, Warschauer, & Farkas, 2013, p. 285) Another study, by Mark Warschauer (2010) on the teaching and learning of writing in ten K12 schools, found that writing on laptops helped to improve the process of revising in three ways. "First, it made the written product more readable and thus easier to evalu-

ate. Second, it provided alternative mechanisms for provision of feedback, and third, it greatly facilitated students' ease at making changes to papers" (p. 105). In my previous experiences as a writing teacher, I had discovered that writing in Google Drive was useful for many of the reasons that these studies mentioned: my students wrote more and their papers were easier to read. Google Drive enabled me to highlight text to comment on and engage in threaded discussions with students about those comments, and it was easy for students to make changes to their papers and for me to track the revisions.

I envisioned using Google Drive as a tool to enable my 10th grade students to practice the revision process and improve the quality of their final drafts, and become a platform for my students to exchange feedback with each other. This practice would expand the audience for their writing beyond a student-teacher exchange. Because our school has a 1:1 iPad program, the students would be able to meet in writing groups and face each other, mirroring the physical proximity of the participants in a traditional writing workshop group, which I hoped would lead to a more natural conversation about suggested revisions.

Enact: Testing Prototypes to Learn from Success and Failure

In order to model for students how to engage in this type of feedback using Google Drive, I used a fishbowl technique. I met with a demonstration group in the center of the room while the rest of the class observed. We shared our writing with each other using Google Drive and viewed the revisions as they were being made on our group's iPads. These revisions were also mirrored on the LCD projector during the demonstration for the whole class to view. Working with a student's writing piece, I talked through my thought processes as I analyzed the effectiveness of various elements in the introduction. The following example of a

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writing workshop assignment shows the steps that students then took to read and respond to their partners' essays.

Writing Workshop (8-10 minutes per essay)

1. Share your essay with your partners via Google Drive.
2. With your partners, read the essay aloud in its entirety. Doing this will help you detect when the writing flows and when it does not.
3. With your partners, answer the following questions: Does the essay have an effective hook? Remember, it just has to grab the reader's attention. Does the essay have a complete map? Does the essay provide an overview of what it will be about? Could the writing be tightened up by cutting out unnecessary words? Should information be added? Does the essay have a strong thesis? Does it state the topic (subject, context) and also include a comment about the topic?
4. When you are finished, the person who shared their essay will complete the survey for their group and submit it via Google Forms. ONLY the person who shared their essay will submit a form.

Because we were learning how to provide constructive feedback, it was important to test our workshop prototype frequently, so following each workshop session students were required to complete a Google Forms survey (see Figure 2) that I used to collect data from students' perspectives on what specifically they would focus on during the workshop. Students were asked to identify the partners they worked with and evaluate the quality of feedback that they received from those partners. After the day's workshop session, students then

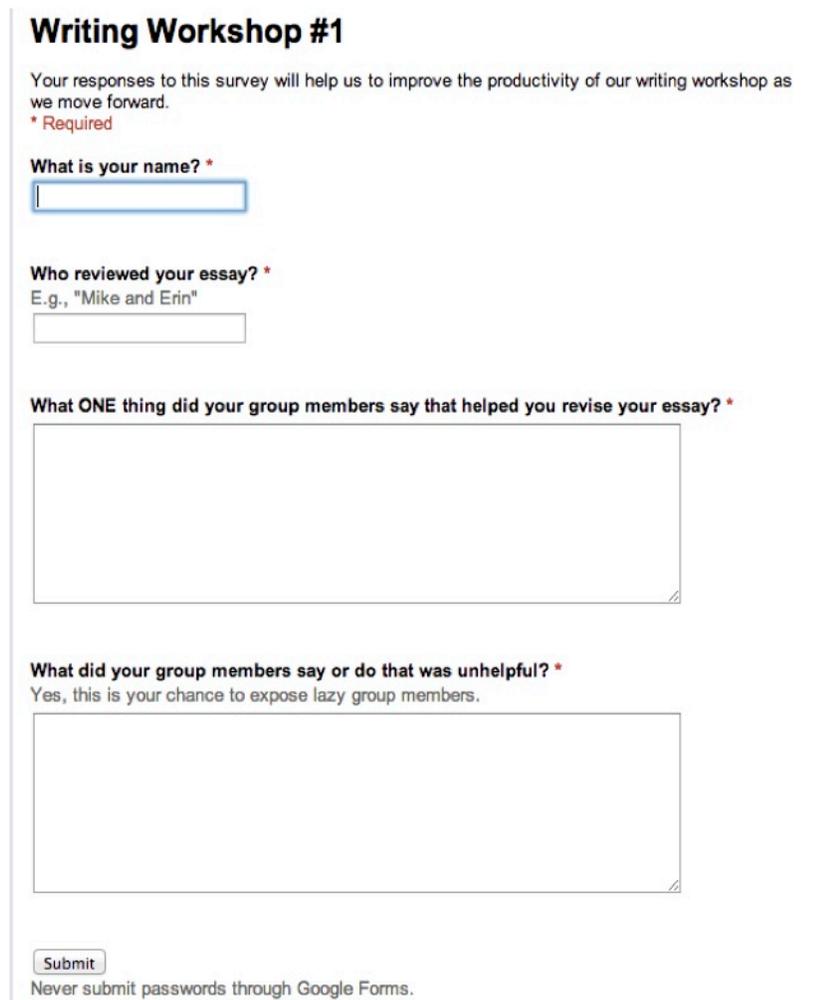
completed a post workshop survey (see Figure 3) which perspectives on how their writing needs were addressed, and how they contributed to the workshop and their peers.

Looking in from the Outside: Jason's Insights from Practice

I noticed that the feedback students gave each other in conversations during the writing workshop mostly addressed grammatical mistakes, even though I had directed them to only comment on the stylistic elements of the introductions. I wondered whether this was because grammatical feedback was easier for my students to spot, or if their corrections were influenced by the feedback they had received from teachers in the past, or if they were in need of additional instruction in order to properly critique the stylistic choices of an essay. I also noticed a decline in the quality of their survey reflections over time. This ambivalence may have been caused by the language of the questions, which focused more on accountability than the improvement of our writing workshop. In the future, I will circumvent these problems by spending more time modeling for the class how to workshop an essay before we break into smaller groups. To clarify our purpose, I would have students create a poster with me to determine the goals for our writing workshop, identify what kind of feedback may be useful and what kind of feedback or behaviors are distracting from our purpose.

After students shared and discussed essays with peers during a writing workshop, they revised their work in Google Drive. Google Drive allows students to make revisions (see Figure 4) a student has made revisions to resolve the comments received during the writing workshop. Google Drive's software allows for the writers who are sharing the document to track any revi-

Figure 2. Google forms survey used to collect data



Writing Workshop #1

Your responses to this survey will help us to improve the productivity of our writing workshop as we move forward.
* Required

What is your name? *

Who reviewed your essay? *
E.g., "Mike and Erin"

What ONE thing did your group members say that helped you revise your essay? *

What did your group members say or do that was unhelpful? *
Yes, this is your chance to expose lazy group members.

Never submit passwords through Google Forms.

sions, which are saved in their entirety, and can accessed by clicking on any particular revisions. In order to encourage revisions made in response to peer feedback in the future, I might require students to provide an example of a segment of their essay they had revised based on feedback from peers. Through examination of revisions, I noticed some students were making numerous stylistic changes by expanding on sections or adding descriptions, while other students made only grammatical changes. This led me to focus more intently on modeling how to notice and suggest stylistic improvements during writing workshop.

Once students had made revisions, essays were submitted for a final round of feedback from me, and were then revised a second time for grading purposes. I read their work and provide constructive written feedback on the GoogleDrive document itself (see Figure 5). In this way, I engaged in writing and revising practices I had guided students to employ, which allowed us a dialogic space, a back and forth processes, to make the writing piece better. Finally, then, after the student has made revisions in response to my feedback (see Figure 5), they submit the piece as ‘published‘ for peers and me to read. When examining the quality of revisions made possible with this technology, I

Using ResponsiveDesign as a Shared Approach

Figure 3. Tabulated feedback from students about writing workshop process

Timestamp	What is your name?	Who reviewed your essay?	What ONE thing did your group members say that helped you revise your essay?	What did your group members say or do that was unhelpful?
9/25/2012 11:54:47	Robert Smith	Edwin and Eric	To make my assertion more relevant to the direction that the essay took.	Nothing, but it was really loud
9/25/2012 11:55:30	Joshua	Dana and Sebastian (aka Mike and Eric)	They told me to add more description to specific elements, and to learn how to spell.	Nothing. They rocked.
9/25/2012 11:55:50	Edwin	Robert and Eric	they helped me realize that i could do better in my introduction	█ was being loud.
9/25/2012 11:57:02	Eric Terry	Edwin and Robert	I should expand my map. They said my introduction was very good and that a good hook.	My group members were very helpful
9/25/2012 11:59:59	Chris Chapman	Eric and Dana	They didn't give me much feedback. Because it was perfect! No, they helped me figure out what to write as a conclusion and how to finish my paragraph	We're all too nice! And too good of writers to be corrected.

noticed that most students only made changes to address my specific feedback and did not otherwise make major changes to their essays. I recognize that I need to work with my students to broaden the feedback they address to include their fellow peers and not only their teacher. This is important, because in the larger unfolding landscape of my classroom, my feedback should serve as a scaffold for students to ultimately reread and make decisions; for them to learn from their students

too, which can help them to revise work on their own in order to improve its meaning; not just to make revisions in response to feedback.

Students were enthusiastic about the writing workshop and were eager to meet each week in order to share their writing with classmates. Through informal conversations, and in the formal surveys I conducted, my students frequently affirmed their belief that participating in the Google Drive-based writing workshop was helping them

Figure 4. Sample of student writing on Google Drive with revision history displayed

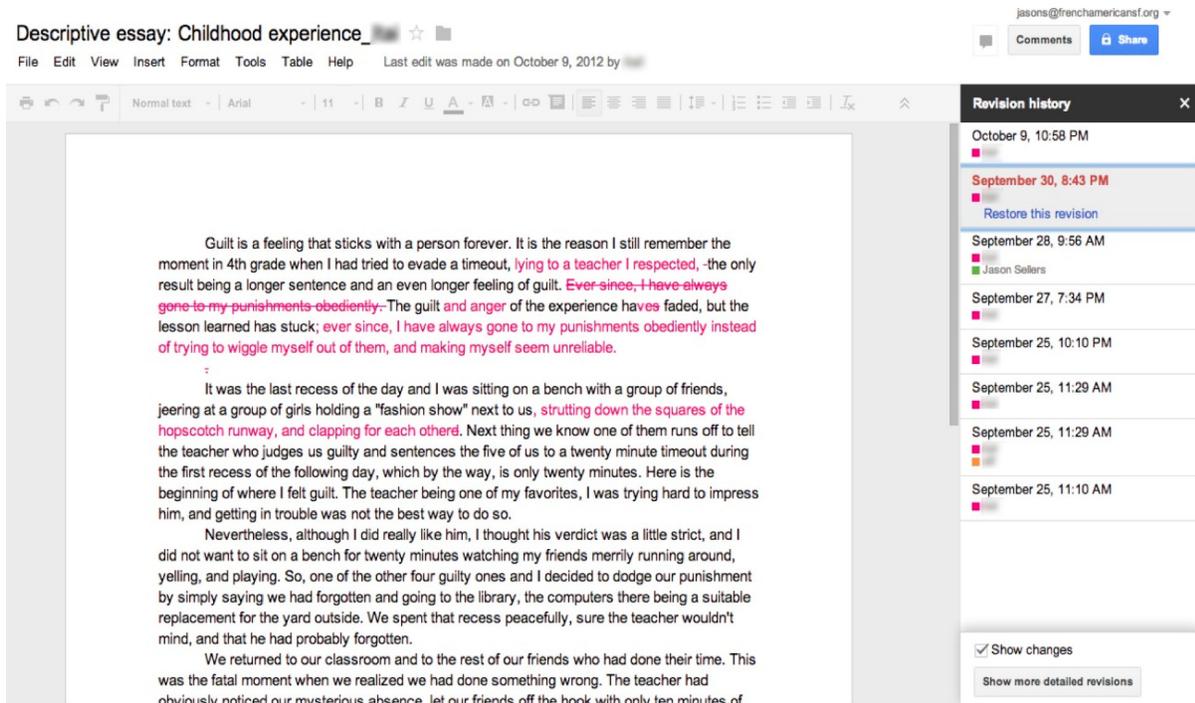
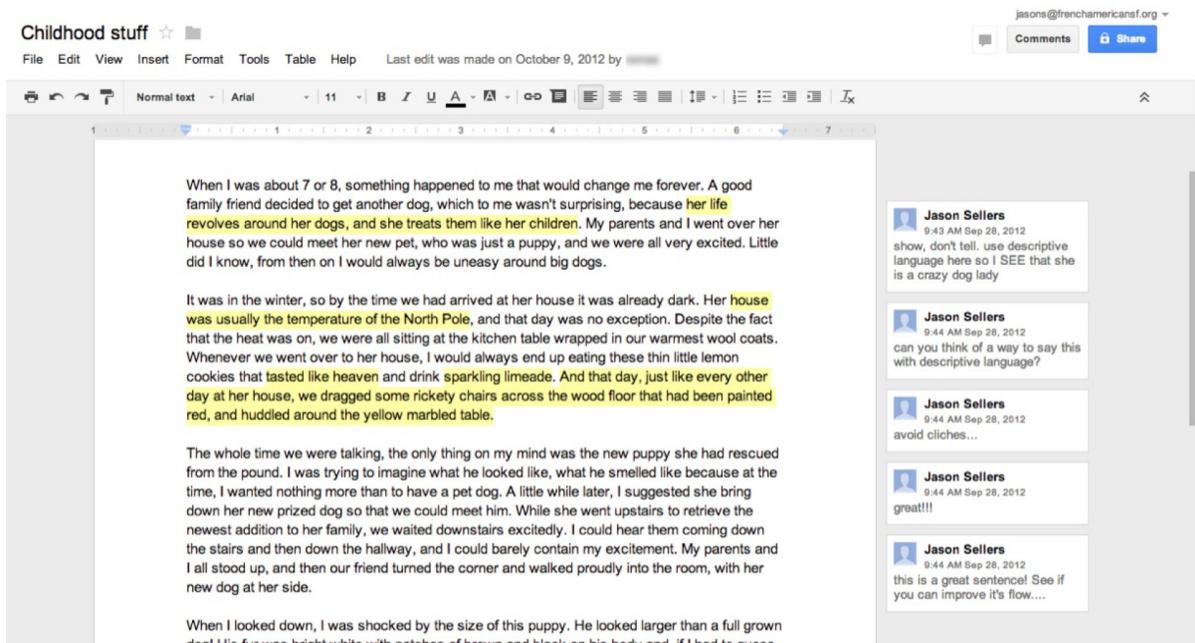


Figure 5. Sample of student writing on Google Drive with teacher comments



Using ResponsiveDesign as a Shared Approach

Figure 6. Sample of student writing on Google Drive with revisions responding to teacher comments

The screenshot shows a Google Drive document titled "Childhood stuff" with a user interface for editing and commenting. The document text is as follows:

When I was about 7 or 8, something happened to me that would change me forever. A good family friend decided to get another dog, which to me wasn't surprising, because she is a bit of a crazy dog lady. My parents and I went over her house so we could meet her new pet, who was just a puppy, and we were all very excited.

It was in the winter, so by the time we had arrived at her house it was already dark. Her house was always cold, and that day was no exception. Despite the fact that the heat was on, we were all sitting around the kitchen table wrapped in our warmest wool coats. Whenever we went over to her house, I would always end up eating these thin little lemon cookies that would melt in your mouth and drink sparkling limeade. And that day, just like every other day we were there, a we dragged some chairs across the wood floor that had been painted red to the yellow marbled table and chatted.

The whole time we were talking, the only thing on my mind was the new puppy she had rescued from the pound. I was trying to imagine what he looked like, what he smelled like because at the time, I wanted nothing more than to have a pet dog. A little while later, I suggested she bring down her new prized dog so that we could meet him. While she went upstairs to retrieve the newest addition to her family, we waited downstairs excitedly. I could hear them coming down the stairs and then down the hallway, and I could barely contain my excitement. My parents and I all stood up, and then our friend turned the corner and walked proudly into the room, with her new dog at her side.

When I looked down, I was shocked by the size of this puppy. He looked larger than a full grown dog! His fur was bright white with patches of brown and black on his body and if I had to guess

Comments on the right side of the document:

- Jason Sellers (9:43 AM Sep 28, 2012): show, don't tell. use descriptive language here so I SEE that she is a crazy dog lady
- Jason Sellers (9:44 AM Sep 28, 2012): can you think of a way to say this with descriptive language?
- Jason Sellers (9:44 AM Sep 28, 2012): avoid cliches... (Highlighted comment with "Resolve" and "Edit Delete" options)
- Jason Sellers (9:44 AM Sep 28, 2012): great!!!
- Jason Sellers (9:44 AM Sep 28, 2012): this is a great sentence! See if you can improve it's flow...

to revise their writing to a greater degree than had their previous experiences of writing essays in class. I believe that this was because writing for an authentic audience of their peers gave my students more opportunities for interaction and an incentive to produce more interesting work, which, combined with the increased attention to the revision process, resulted in an overall higher quality end result.

As a result of this experience, I learned that using Google Drive made visible misconceptions that my students had about the revision process. They mistakenly believed that the primary purpose of revision was to correct grammatical errors. Google Drive enabled me to collect data by tracking revisions and feedback from students about the writing workshop experience. Using the ResponsiveDesign model enabled me to explore what I knew about the revision process based upon my previous experiences as a writing teacher, envision a way that Google Drive could

be used to expand upon physical writing-to-learn processes and utilize data-collection mechanisms and enact a new model for students to make revisions to their papers. ResponsiveDesign provided me with a framework to recognize and name what I saw happening in my classroom and develop future iterations of this classroom practice. Being a member of the CoLab has pushed me to be more reflective about the work I do in my classroom as an educator and to broaden the scope of this work by sharing as a member of a community of teachers and researchers.

Telling Case Two: Donna Goetz's Story of Twitter as Meta Reading Tool with Literature

Donna Goetz, a fourth year high school English teacher, sought ways to support students' comprehension of complex text. Through examining her practices with the ResponsiveDesign process,

she broadens the boundaries of digital technology use within the classroom to motivate and enhance student learning by addressing this question about her practice: In what ways can I support student understanding of complex text through the use of technology?

Explore: Developing Empathy to Understand and Define a Problem

I wanted to explore ways to enable each student to respond in more depth to complex text. I noticed many students had difficulty attending to the nuanced themes in novels, and I did not have an established or practiced way for students to actively discuss literature with each other. During the Co-Lab Summer Institute in 2012, we actively used Twitter throughout the day, and within teacher-led demonstrations of practice we would routinely disseminate publicly the noticings, learning and actions of each institute day. I began to wonder how Twitter technology might help my students become more attentive to reading complex text.

I decided to explore Twitter as a meaning-making medium when my students read aloud *The Crucible* by Arthur Miller. While reading aloud, I needed a way for students to respond in real time without interrupting the flow of the dramatic reading. When I overheard some students discussing Facebook versus Twitter, I was struck with the ease with which they talked about the technologies' usefulness and utility for particular purposes. It was then I realized students were dealing with digital disconnect. They were experts using digital technologies outside of school to connect with their networked communities, yet, in school the ways we had been connecting with literature was largely through longer writing assignments devised to demonstrate comprehension after a novel was completed. I began to question myself about integrating this digital media into my classroom.

When I asked my students about their knowledge of Twitter, I quickly discovered many actively used it. Though my experience with Twitter was

limited, I felt this technology was worth testing as a learning tool in my classroom because it had potential as a building to learn element. In other words, I wanted my students to take notes about *The Crucible* in a writing medium familiar to them: quick, short bursts of text. Why should I limit their note-taking to pen and paper?

Initially, I wondered if Twitter was appropriate in the classroom and knew protocols for its use would have to be established. To become more proficient, I enlisted the help of a student and together we set up a Twitter account strictly for *The Crucible*. Through exploring and noticing student modes of interaction, my instructional needs as a teacher began blending with the technology needs of students.

Envision: Deferring Judgment to Build Prototypes

I began to wonder: What if students had the opportunity to respond to complex literature with this digital medium? What if they could, in real-time, notice and name aspects of the reading while I read aloud? How would their motivation be impacted? Would their understanding be enhanced? Before we began reading, I envisioned each student gaining access to a newly established Twitter account. Those who had mobile access to Twitter could follow this account, @MDAmLitCrucible, and the students who did not have access would be assigned to a team with access.

Enact: Testing Prototypes to Learn from Success and Failure

I used the "war room" analogy in the physical layout and conducted the exercise in the school library. One section was set up with desks arranged in a square. Students selected to read parts were seated with their backs to the Twitter feed projected on the wall, while the other students could see the feed. Two students were assigned the job of manning the control station. Their job was to

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respond to the tweets from their classmates. One student was assigned as the videographer.

As the class read the play, each team was to tweet one noticing and one wondering, then respond to another team's tweet with a "Yes, and.." comment. At the end of each class period, Tweets were reviewed and used as a springboard for further discussions or written reflections of the literature. As we progressed through the reading, students were asked to post any "Hot Words" (aka vocabulary words) they deemed important. Those words were also incorporated into our discussions.

Two acts were read using this methodology. The students' responses were rich with detail, included numerous observations of characters' dispositions and developed questions about motives. During the third and part of the fourth acts, teams read by themselves and posted responses as they progressed through the play. At the end of each period we came together in the "war room" and reviewed the tweets. At this time we were looking from a meta view of what the classroom community had captured in its collective Twitter "net." We read the end of Act IV together in order to dramatize the climax of the play. Students expressed how using this technology as a means to explore text in real time was fun and more engaging because they got to see what was in the minds of their classmates. A task difficult to perform in real time with traditional pen and pencil notes was transformed.

As an assessment to further ensure that students would grapple with and understand this difficult text, after each act students wrote an extended response to a prompt. I noticed immediately that the students' written responses were more thorough than they had been in the past when this novel was presented as a traditional read-aloud, complete with study guide and testing.

Below is a representative sampling of actual tweets by students. In the beginning students were hesitant to express their thoughts. As we progressed through the readings, students became eager to tweet thoughts, especially their "wonder-

ings." They focused less on the mundane details of the explicit text and more on the implicit themes. The students were less focused with the "what" and became more focused with the "why." I was not as concerned with the writing conventions as I was with the thought process. I feel that this gave the students freedom to express their observations and ideas. Establishing and maintaining a culture of learners and writers supported students to go beyond surface thinking and dig deeper into meaning without fear of ridicule. Note the creative hashtags:

1. Abigail's parents were killed right in front of her #thatstheworst.
2. Abigail wants to kill Goodie so she can have John.
3. LETS READ #excited.
4. I wonder if Paris is more afraid for Betty or himself #Fear.
5. Is Abigail lying?
6. I wonder how tituba speak to the dead #weirdo.
7. I wonder if Ann resents all the stillborn children? #Crucible.
8. I wonder why Paris insists there is an illness..... #crucible.
9. M D A m L i t C r u c i b l e 1 2 p d 3 @MDAmLitCrucible10 Oct.
10. What was abby and john's past relationship?
11. He's excited about the #Crucible pic.twitter.com/P4dJX3bi.
12. Want to find out who a witch is?! Ask Mr. Hale.

Looking in from the Outside: Donna's Insights from Practice

Originally, I had hoped that using Twitter would help keep my students focused on difficult text. I started my teaching career in the school library and I often overheard students say that they would not bother reading the literature because it was boring; much easier to simply rely on Spark Notes. My

B.A. in Literature led me to believe learning how to appreciate great literary works is significant. I thought using Twitter would motivate students to remain actively engaged as we unpacked the plot and peeled back the layers of text to reveal what was below the surface of the written word. It is in discovery that true understanding lies. This exercise did, in fact accomplish this, but I also discovered that students were learning how to articulate their thoughts in writing. They became a community of writers because they could see and react to other students' thoughts. Their focus went beyond who did what to whom in the story, and entered the realm of "why" and "what if." I began to see that students were discussing the text outside of the Twitter forum. At the end of our reading, students wrote involved essays analyzing aspect of *The Crucible*. I observed they were able to deliver a deeper analysis using more concise writing. It was some of the best writing I have graded since I began teaching.

Using Twitter was more successful than I had envisioned. Students were actively engaged in learning, excited to come to class and more successful understanding difficult concepts of the text. One of the benefits I had not envisioned was how students learned economy of words. With a limited amount of characters, they were forced to communicate more clearly and concisely. The creativity they displayed with the hashtags also contributed to the overall effectiveness of the methodology. I had other teachers ask me what was going on in class because my students were talking about American literature in other classes. Not only were the students excited about the learning process, but I was energized in a new way. The highlight of each day was American literature class and the study of *The Crucible*.

I could never have developed this learning experience without ResponsiveDesign. As teachers in the age of Common Core State Standards, we hear a lot about going outside of the box to help students understand difficult text. But no one ever shows us how this is done. I have an

advantage because I am a former Army officer, and much of our training was in problem solving and searching for solutions outside of the box. ResponsiveDesign's "explore, envision, enact" provides a workable framework to do this. I modeled the process in front of the students when I first developed the Twitter exercise. I asked the questions out loud: "What do I want to explore? How do I envision this exercise unfolding? What do I hope the students will take away after the enactment of this exercise?" I involved them from the very beginning since they are the Twitter experts. I used the word prototype (which, by the way, the students indicated at the end of the semester was their new favorite word). During the exercise I involved the students in brainstorming ways to make the experience more meaningful for future classes. At the end of the process, I modeled a post-discussion as we revisited our initial inquiries. The CoLab has made me confident in the process of prototyping. I have learned that prototyping is a cyclical process that engages me in reflective thinking. This process allows learning and teaching practices to evolve over time.

Telling Case Three: Jessica Pilgreen's Story of Making Space for Communicating Writing Assignments with Students and Parents

Jessica, now in her 11th year of teaching, became a member of the CoLab in the summer of 2010. She teaches English in a rural high school in the Midwest and presently serves as the technology liaison for the CoLab. Her story reveals the ways in which her summer institute experience became the place where she learned about a Web-based communication blog, Weebly.com, from a fellow teacher colleague and how she subsequently introduced this blog within her school's teaching and cultural context.

Explore: Developing Empathy to Understand and Define a Problem

Utilizing technology within the classroom to enhance learning has intrigued me from the beginning of my career. Since I began teaching in 2002, I have observed the manner in which students harness the power of technology in their daily lives—Smart phones, computers, Web sites, cameras—and believed that the prevalence of such technology should be harnessed for their educational potential. If students are already eager consumers of technology, then it makes sense to use technology to enhance their learning experiences. I immediately began using simpler forms of technology, such as multimedia slideshows or educational Websites, but my ultimate goal was to create a completely customized learning “hub” for my students, something I could build from the ground up to assist them with our classroom learning goals and units of study.

Envision: Deferring Judgment to Build Prototypes

For several years, I had envisioned creating a classroom Website to serve as an informational “hub” for students and parents of my freshman English I classes; a place where I could direct students and parents for a multitude of reasons. I recognized a need to have a designated space for supplemental materials and interventions for students and a need to have parents cognizant of what was happening in the classroom. It has been my experience that when parents know what their children are learning, and when parents receive regular communication from their child’s teachers, those students tend to perform better academically. I envisioned it as a hub, a place to display the class syllabus, post classroom notes and homework, access practice tests and flash cards and show pictures of student work samples and activities. This hub would support the promotion of discussions between parents, students and me.

Earlier attempts to create a Website were stifled by my lack of expertise in Web page design, HTML code and other computer know-how. For years I dreamed big, but lacked the practical skills to build my own site. That changed when I discovered Weebly.com during the CoLab’s Invitational Summer Institute of 2010. One of the fellows, Stefani Jubelt, shared a lesson on blogging using Weebly.com. The drag-and-drop interface caught my attention and I immediately envisioned it as a tool for creating a dynamic classroom Website full of multimedia content. I began to enact a Website prototype during the summer of 2010, immediately following the ISI. I started small and included what I considered some of the most essential components—syllabus, contact information, and study guides—realizing I could add more elaborate multimedia components in the future. As I experimented, and as my students and lessons changed, the Website changed. I began adding photographs of student work, descriptions of student’s activities and samples of student writing. This informational hub has become more than a Website; it has become a type of ethnography.

Enact: Testing Prototypes to Learn from Success and Failure

Once the Website was created and made available (see Figure 7), the greatest challenge was getting families to use it as a resource. Initially, I designed a low resolution prototype by sending out an introductory email to parents and guardians of all my students. I continued this practice throughout the year, especially as new photographs and samples of student writing or illustrations were posted to the Website. Immediately I noticed a dramatic increase in the number of page views that my Website was receiving and family members began to return emails with comments regarding the Website and information I was sharing. At the end of the 2013 school year, I conducted a voluntary survey of adults to assess the effectiveness of the Website and to seek recommendations for improvement.

This survey process also became my systematic way to seek students' feedback.

Students' most frequent response was that they liked the availability of study materials and their most common suggestion for improvement was to include review materials for more of the units studied in class. Families especially "loved looking at photos of the kids" and appreciated "the fact [I] even have [a Website] and that it is updated, relevant and current." One parent stated, "I wish more teachers would use Websites to put information out there to help kids!" However, several families responded that they were either unaware of the Website or did not use it often. As I move forward, reflecting on my successes and challenges with this technology, I immediately recognize the potential for growth.

Looking in from the Outside: Jessica's Insights from Practice

One of my most rewarding experiences was through helping a student build a Website providing information about her experiences with juvenile diabetes. Seeing this student harness this technology in a powerful way and applying it to an experience outside of the classroom has prompted me to envision new ways of using Website construction. I need to focus on ways to increase awareness and to encourage more families to regularly access the Website. I plan to continue actively gathering feedback in the form of adult and student surveys in order to assess changing needs and concerns. This feedback will become instrumental in updating needs statements as I move forward with prototyping in new, creative ways. As a teacher-researcher, the prototyping approach allows my practice to become refined and nuanced with each enactment.

The CoLab surfaced the realization that all of us are in the process of making and creating. We make texts and we create classroom experiences, and in this way I now understand how my students and I are actively co-constructing what counts as learning in my classroom and what counts as digi-

tal tool-use. The way I used ResponsiveDesign's explore, envision, enact helped me move through a process to solve a problem that I was having. The approach was different from the 'top-down' one-size-fits-all methodology that is typically handed to teachers. I now understand the power of actively co-creating with my students a learning community that values innovating and working through the barriers involved in problem solving.

Telling Case Four: Jeffery Hudson's Story of Closing the Reading Gap between Home and Schools Texts

Our final Telling Case is of Jeff Hudson, an experienced teacher with sophisticated literacy practices whose primary focus is innovating his practices to stretch his students learning. Through his attentiveness to the ResponsiveDesign process he names his students' distinction between home and school reading, and then designs his response that embraces digital tools to break through the dichotomy.

ResponsiveDesign provides a process for making visible what is possible in my classroom and for my students. In an era of new curricular mandates and more rigorous teacher evaluation models, such as the Illinois Teacher Performance Evaluation system, innovation upon practice is necessary. Curricular mandates and evaluation models, in and of themselves cannot assure meaningful revision of practice – a decade plus of No Child Left Behind legislation should have taught us as much. If, however, we are to live up to the promise of the Common Core State Standards – if we are to prepare the leaders and doers for a world that does not yet exist, we must realize our own and our students' innovative and creative potential.

Explore: Developing Empathy to Understand and Define a Problem

I have previously asked my creative writing students to write aesthetic statements, affirmations of quality in story. We read together a short chapter

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Figure 7. Jessica Pilgreen's Weebly.com website



**This above all:
To thine own self be true.**

[Home](#)
[Speak](#)
[Writing](#)
[Romeo & Juliet](#)
[Mythology](#)
[The Odyssey](#)
[Lit Terms](#)
[Grammar](#)
[more...](#)



Welcome to Mrs. Pilgreen's English I Website

Mrs. Jessica Pilgreen, MA
 E-mail: pilgreenj@...
 Phone: 224-... ext. ...
 Plan: 7th Hour (1:14-2:04)

 [English I Honors Syllabus Download File](#)

 [English I Syllabus Download File](#)

SPEAK
 MYTHOLOGY
 ROMEO & JULIET
 THE ODYSSEY
 POETRY
 THE TIME MACHINE (Honors)
 THE LITTLE PRINCE (Honors)
NEW SHAKESPEAREAN SONNETS (Honors)

VOCABULARY
 PREFIXES, SUFFIXES & ROOTS
 ARTICLE OF THE WEEK
 WRITING
 GRAMMAR
 LITERARY TERMS
 SEMESTER EXAMS

ASSIGNMENT ARCHIVES
 MYERS BRIGGS PERSONALITY TEST
 STUDENT SURVEY
 SCREENCASTS
 ACT/EXPLORE TEST PREP
 STUDENT WORK SAMPLES & PICTURES
 NOVEL PROJECTS

[Jessica's 30 Boxes](#) | [Buddy Page](#) | [More...](#)

APR	Sun 21	Mon 22	Tue 23	Wed 24	Thu 25	Fri 26	Sat 27
	28	29	30	MAY 1 HS Academic Banquet	2	3	4
	5 HS Concert Band	6 HS Chorus/Jazz Cor	7	8	9	10	11
	12 Mother's Day	13	14 HS Band Awards Ba	15	16	17 LAST DAY OF SCHOOL	18

Powered by 30 Boxes
2013

by writer David Jauss (1989), “Articles of Faith” in which Jauss names his own personal standards for story, and we began thinking about what makes a good story and what makes good writing for us. By first looking at narrative from Jauss’ perspective, building empathy and shared expertise, students could then frame, articulate, and test their own standards for story. Many things emerged as students shared these aesthetic statements in class, not the least of which was a sense of connection and empathy. Despite the very diverse make-up of my creative writing sections, we began to see the many ways we were alike rather than different. It is no coincidence that one of my own articles of faith, when it comes to story, is narrative’s ability to connect us to one another and to place. Writer Anne Lamott (1994, p. 237) maintains, “Writing and reading decrease our sense of isolation. They deepen and widen and expand our sense of life.”

Something else, less affirming, became evident. It first emerged in students’ assertions that they just do not read. Students would come to me after the Jauss discussion and claim they could not write aesthetic statements because they do not read. I suggested they write about movies as an alternative, and many were able to do this. Curiously, those same students who argued persuasively that they never read were soon bringing me copies of their favorite books! *Twilight*, or *Harry Potter*. Students were making a distinction between school readings, what Sheridan Blau (2003) would call efferent reading and the reading they did on their own...for fun. The distinction was so finely wrought that when I asked students what they liked to read, in the context of a class in school, they claimed they did not read. The literature students I teach helped me understand this paradox, and through the empathy I developed, I began to shift my thinking to envisioning how it might be possible to shift these beliefs about separate reading modes.

Envision: Deferring Judgment to Build Prototypes

While there is certainly a difference between a novel one takes to the beach or reads under blankets at night and literature study, I wondered if those two reading modes could not be brought closer together. These students and I enjoyed thinking about the claim William Broz (2011) makes in his essay “Not Reading: The 800 lb Mockingbird in the classroom” that “if students do not read the assigned texts, nothing important is happening in your literature classrooms” (p. 15). Broz agrees with my creative writing students; they just do not read – assigned texts as part of a literature class. What would happen, I wondered, if those two extremes could be brought closer together? Is there value in applying a critical perspective to *Harry Potter* or in “just reading” *To Kill a Mockingbird* or other canonical, curricular texts? I wondered if digital technologies could help me close that gap; how could I use digital technologies to make visible students’ individual, aesthetic experiences with texts and make those experiences the focus of analysis or literary study.

Broz (2011) argues that the way teachers “teach” literature may be to blame for why students do not read. I wanted to avoid those missteps, so with the first stories we read, I envisioned ways to start with the students’ experiences with the text. We layered a Twitter (www.twitter.com) back-channel discussion over our in-class discussion, then captured as much of both the analog discussion and tweets in a Prezi (www.prezi.com) which was then shared with the class so that individuals might revisit the text and the discussion.

Enact: Testing Prototypes to Learn from Success and Failure

What was captured in these digital spaces? As I began to enact this teaching prototype, I knew I would closely notice what emerged and learn

Using ResponsiveDesign as a Shared Approach

from whatever happened. The first short story we explored via these various connected technologies was Ernest Hemingway's *Soldier's Home*. Students came to class with the story read, or not. I first lead them through a Save-The-Last Word (SLW) protocol for the purpose of making visible individual experiences with the text. After students captured their own responses to the text, these responses then bumped against the readings of other students in each reading group. While these conversations unfolded, we projected a Twitter feed which searched our class hashtag #hud1213. Students added observations and questions to this back channel discussion.

To these layers of diving in, of naming and noticing, we added a layer of analysis by having selected students use Storify (www.storify.com), a social media search engine which allowed them to search our hashtag, gather interesting tweets and annotate or comment upon them, and to make sense of what they found there. From Daiquiri's Storify search, she first selected a tweet from Larry: "Our discussion today made me wonder how I would teach a book in way [sic] that my students would want/have to read the book." Daiquiri built upon this wondering in her Storify story with, "Sometimes as students we are not even sure how our favorite way is to learn but we do notice when a teacher is just giving us busy work or giving us a [sic] opportunity to learn something, just like teachers can pick out 'lazy' students we can also pick out 'lazy' teachers."

Daiquiri and Larry have nuanced a literature discussion which rarely moves beyond plot summary (Broz) to explore pedagogy and philosophies of learning. They have done so by building on prior classroom experiences, our reading of "Not reading: The 800-Pound Mockingbird in the Classroom" and by interacting with noticings and wonderings made visible in the connected space of Twitter.

Here is another noticing/wondering exchange played out in Daiquiri's Storify analysis. This exchange connects us back to the literature at

hand. Larry tweets, "I noticed that even though his [Harold Krebs] body is free and home, his mind is still trapped on the battlefield." Daiquiri riffs on this observation by wondering, "Do you think he needs a psychologist?" Daiquiri and Larry engage in rich character analysis via noticing, wondering, and interacting in the carnival (Bakhtin, 1986) that is Twitter and Storify.

Another Storify story, one written by Nicholas, also built upon Larry's tweet about Krebs. Nicholas responds,

Krebs does seem to cling to a depression related to the stress gained during the war. In a way, he is trapped because he is safe at home and has his whole life in front of him, and yet, he is not happy.

This exchange transcended the traditionally defined classroom, four walls and 50 minutes, in that Nicholas and Larry are in different sections of my course meeting at different times of the day through sharing the tweets under my Twitter hashtag.

Looking in from the Outside: Jeffery's Insights from Practice

So where had I journeyed with ResponsiveDesign? From my observations – students are not reading assigned texts; they do not even define the reading they do as reading – emerged a collaborative, innovative process. By building empathy, suspending judgment, and building to learn I moved my classroom, my students, and myself into new space. We created something where nothing had been – tweets and Storify narratives reflecting upon both the literature and the ways in which we engage literature. And the results of this process fueled powerful learning in my room, learning it might be noted which is easily aligned with the goals of the Common Core State Standards. More importantly, together, we began to make an argument for the principled and intentional study of literature.

CONCLUSION

In this chapter we presented diverse perspectives from four teacher-researchers to make visible the ways in which they identified a problem of practice, focused on writing instruction and digital tools and the ways they harnessed ResponsiveDesign to innovate solutions to their problems. We began this chapter with this quote by Kevin Kelly's book *What Technology Wants*: "You can't effectively jump ahead when you want to. But when the Web of supporting technological species are in place, an invention will erupt with such urgency that it will occur to many people at once." (Kelly, 2010, p. 155). Kelly's claim helped us understand why digital technologies take hold, or not, within a culture of prospective users. The CoLab is a culture, a particular kind of LiqNIC and as such has become a Web of supporting technological species, with ResponsiveDesign as a shared theory of action and innovation. Within each telling case emerged a particular kind of teacher, and across the telling cases we revealed the ways in which they became intentional prototypers of their practice as they built to learn with digital tools.

Learning to teach is more than reproducing what we see, hear or remember from our preparation programs (Anderson-Levitt, 2002) or in-service staff development days. Learning to teach and learn in particular ways involves a complex network of people with diverse knowledges working in particular ways with particular shared visions in mind. Each telling case revealed the particular local challenges that educators faced in order to harness digital tools to teach writing. The four teachers drew on ResponsiveDesign as a shared theory of action, and in their work the ways they explored, envisioned and enacted innovations to their teaching became habits of action. As they examined the consequences of using ResponsiveDesign, they articulated how those habits of action nurtured in them habits of

mind, ways of thinking of themselves as intentional prototypers of practice.

RESEARCH DIRECTIONS

Human beings construct meaning as spiders make Webs... We differ from other species in that clusters of human beings have constructed alternative visions to be passed on, often reshaping them in the passing. We live, more than any previous generation, in an era where these visions meet, each potentially compensating for the blind spots of the other... What would it be like to have not only color vision but culture vision, the ability to see the multiple worlds of others? (Bateson, 1994, pp. 51-52)

Mary-Catherine Bateson invited us to consider the ways in which we construct meanings, like spiders make Webs that yield to new visions co-constructed by diverse perspectives. The CoLab as a LiqNIC is one such cluster of thoughtful and innovative practitioners, shaping new possibilities and reshaping them in their passing from the summer institutes into the local context where teachers do their work. What has become of interest to us, for future research directions, is to examine the six years of data records, ones collected across the CoLab's summer institutes, in order to make visible the ways that our understandings of ResponsiveDesign have evolved over time. Findings from such a study could help leaders seeking to build LiqNICs with ways of thinking about and co-constructing their own LiqNICs.

Through the process of co-authoring this chapter with our teacher-researcher colleagues, and through the collaborative process of co-inquiring into their individual telling cases we revealed the discursively enacted choices teachers made to breathe life into ResponsiveDesign. And at a deeper level, what the four cases have

Using Responsive Design as a Shared Approach

in common is a habit of action centered around: Documenting & Describing, Noticing & Naming, and Analyzing & Announcing. And because this particular DNA is at Responsive Design's core, as a particular LiqNIC; the CoLab has emerged out of the wisdom where the fields of anthropology and ethnography; geology, geomorphology and cultural geography intersect with and learn from the practices from field of art and design.

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KEY TERMS AND DEFINITIONS

CoLab: The Cultural Landscapes Collaboratory was founded 2004 by Dr. Ralph A. Córdoba, Jr. (Córdoba, et al., 2012; Córdoba & Murawski, 2009/2010) to become a multi-professional learning community that conceived of students, parents, teachers, community members and dis-

ciplinary experts as co-experts and co-teachers. In naming this community as the Cultural Landscapes Collaboratory, Córdoba brought together two disciplinary perspectives to the center of its work. The first perspective is an ethnographic one that draws on theoretical traditions from cultural anthropology (Green, J., Dixon, C., & Zaharlick, A., 2002) to understand settings inside and outside of schools as cultures-in-the-making. The second perspective recognized the fields of geology, geomorphology and cultural geography because they name and understand the physical and human processes that both shape landscapes and how these processes can give us guidance to document, notice and analyze them, which lead us to navigate and shape them.

DNA: DNA is an acronym for the ethnographic practices at the core of ResponsiveDesign. Drawing on ResponsiveDesign’s DNA, users systematically examine their teaching practices by intentionally documenting and describing, noticing and naming of the work they do, with the intention of analyzing and announcing what they learn. This DNA is habits of practice and of mind that are deeply rooted in the interactional ethnographic tradition out of which the CoLab emerged.

Explore, Envision, Enact: Exploring has a purpose of developing empathy to understand and define a problem. Envisioning requires us to defer judgment to build prototypes. Enacting then invites us to test prototypes to learn from success and failure. As we move through and between each of these phases, our interactional ethnographic stance (described in the next section) helps us attend carefully to how those actions worked to support and/or constrain teachers innovating upon practice. Thus, the CoLab brings ResponsiveDesign to all situations through careful activity-organizing protocols which help to both sustain the learning momentum of building to learn, and honor the theoretical roots of our work in human-centered learning and collaborative growth.

Interactional Ethnographic Perspective:

This concept draws on an anthropological perspective, which in part serves as the epistemological base for interactional ethnography, posits classrooms as cultures or dynamic cultures-in-the-making. From this perspective, members (teachers, students, families, others) of these cultures-in-the-making construct together patterned ways of being, knowing, and doing through their actions and interactions (Santa Barbara Classroom Discourse Group, 1992). These classrooms as cultures/cultures-in-the-making notion made sense to us as teacher researchers (Córdova, 2008; Yeager, Floriani, & Green, 1998) and continue to make sense in the context of the complexity of everyday life in and out of classrooms.

Liquid Networked Innovating Communities: CoLab is a Liquid Networked Innovating Community (LiqNIC). The notion of a “liquid network” (as cited in Johnson, 2010) was a metaphor first used by computer scientist, and founder of the field of artificial intelligence, Christopher Langton. Science writer Steven Johnson drew on Langton’s metaphor of a “liquid network” to

describe the kind of networked environment that allows for new configurations to emerge, often through random interactions, and yet the network remains sufficiently stable to allow growth and innovation (Johnson, 2010, pp. 45-66).

National Writing Project: The NWP was founded in 1974 and is presently a networked professional development organization comprising 190-plus sites, located in every state of the U.S. Its fundamental tenet is one grounded in a co-expertise model of teachers teaching teachers.

ResponsiveDesign: ResponsiveDesign is the CoLab’s theory of innovation and action. It guides users to innovate solutions to problems inherent to curricular and educational practice by becoming Prototypers who courageously and confidently seek and solve problems. Embracing this conceptualization intentionally uses language and assumptions about growth and learning that both introduce and fuel a “growth mindset” (Dweck, 2006). With this prototyping frame, three actions of exploring, envisioning and enacting provide an iterative and recursive pathway towards innovation.