Facilitating Students' Stances toward Technology-Enhanced Reading and Writing in the Classroom

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Abstract

The study focuses on adolescents' responses to their 8th grade, language arts/social studies teacher's attempts to infuse instruction with networked, digital technology. Drawn from third space theory (Bhabha, 1994), we identify three stances that students took up—accepting, leveraging, and repurposing. Students often expressed an accepting stance to classroom activity and tasks in teacher-sanctioned ways. When students presented a leveraging stance, they marshaled resources from different contexts to pursue their preferences to align with the teacher's intentions. Rarely, students took up a repurposing stance, pushing up against the teacher-sanctioned practices to pursue their own goals. In both leveraging and repurposing stances, we found the potential for third space moments to arise. Barriers to achieving a sustained third space through technology use included the teacher's restricting activities to particular platforms, narrowed curricular orientations, and lack of attention to out-of-school practices. Access to technology and sponsors facilitated students' leveraging out of school knowledge and technology practices, and repurposing of in school tasks and resources.

Classrooms entail highly structured forms of legitimate participation (Freebody, 2013;

Leander, 2007); yet, students have ways of working within and resisting classroom norms

(Benson, 2010; McCarthey, 2002; Vasudevan, DeJaynes, & Schmier, 2010). Third space

theory (Bhabha, 1994; Gutierrez, 2008; Gutierrez, Rymes, & Larson, 1995; Moje et al., 2004)

conceptualizes the merging of home, community, and peers (everyday knowledge) with

institutional norms (classroom knowledge) to provide a productive cultural space for

learning. Within such hybrid spaces where neither the monologic script of the teacher nor the

counterscript of the student holds sway, students reframe their engagement through

interactive writing (Britsch, 2005); develop their identities through the inclusion of out-of-

school activities (Leander, 2002); and/or become interested in technology and science

(Eisenhart & Edwards, 2004). As Moje et al. (2004) argue, teachers can create third spaces

by explicitly connecting students' out-of-school knowledge and practices to school content.

Dredger, Woods, Beach, and Sagstetter (2010) found that integrating out-of-school digital

practices into the curriculum forms a third space and improves writing pedagogy.

Technologies, and the social practices that evolve with online, networked tools, hold

promise for developing third spaces (Black, 2009; Curwood, Magnifico & Lammers, 2013;

Skerrett, 2010). Madden, Lenhart, Duggan, Cortesi and Gasser (2013) found that 95% of

teens are on the internet, most often with mobile devices. Doering, Beach, and O'Brien

(2007) have recommended a variety of ways to infuse multimodal tools and digital literacies

into the English classroom. However, tensions between institutionalized learning

environments and adolescents' histories may arise when mobile technologies are used in

classrooms (Ehret & Hollett, 2014). These tensions may be due to the differences in ways

that teachers use technology in the classroom versus students' out-of-school use. For

example, in her study of the teaching of digital tools in Australia, Honan (2008) found that

teachers focused on technical skills and did not consider students' out-of-school proficiencies such as gaming. Purcell, Heaps, Buchanan and Friedrich (2013) found through a national survey of National Writing Project (NWP) and Advanced Placement teachers that they used digital tools such as Google Docs, search engines, websites and blogs in their classrooms for students to conduct research; however, the tools were rarely used to promote creation, collaboration, or publication. Hutchison and Reinking's (2011) survey of teachers in the International Literacy Association found that most teachers considered using presentation tools such as PowerPoint and interactive whiteboards as integrating technology into their classrooms. These studies suggest that technology in classrooms is continuing a transmission model.

Barriers to teachers' integration of technology in more creative ways may include lack of consistent access to computers, lack of familiarity in using digital technology themselves, or insufficient professional development for connecting their own use of technology into their teaching repertoires (Inan & Lowther, 2010). In their study of 21 teachers participating in a NWP Summer Institute (SI), Howell, Kaminski and Hunt-Barron (2016) identified extrinsic barriers such as lack of hardware preventing daily use in classrooms. Additionally, the professional development during the SI was limited to 3% of their overall experience. Thus, teachers expressed a desire to use more technology with their students, but were not confident in their abilities to use new tools to enhance their instruction. When professional development for technology occurs, it is often separated from curriculum (Lim, So & Tan, 2010). Burnett and Merchant (2011) identify curricular demands and privileging of print over digital tools as continual problems with technology integration. These external factors may influence teachers' ability to successfully integrate technology into the classroom and go beyond the transmission model in their literacy teaching.

Additionally, Johnson (2016a) argues that the focus on technology integration is limiting

because it does not account for how teachers are incorporating conceptual practices related to

new literacies. In her study of teachers participating in a Summer Institute, Johnson's (2016b)

analysis of secondary English teachers' talk and multimodal concept maps showed

contradictions--teachers acknowledged the power and benefits of digital technologies yet

continued to conceptualize writing in traditional ways; the study demonstrates that "teaching

writing with new technologies requires a shift in how they conceptualize the teaching of

writing in their classrooms" (p. 55).

In contrast to teacher's technology use in classrooms, youth are overwhelmingly

engaged in participatory cultural models of literacy practice outside of school, using a variety

of digital tools for communication, creation of artifacts, and performance (Jenkins, Ito &

boyd, 2016). Abrams and Russo (2015) found that adolescents generate, evaluate, and

experiment with both online and offline artifacts to participate in both social and academic

practices. Youth participate in online fan fiction sites that afford both anonymity and an

audience, crossing traditional audience boundaries (Lammers & Marsh, 2015). The studies on

adolescents' use of digital tools in and out of school have lead many scholars (Erstad &

Sefton-Green, 2013; Ito, et al., 2013) to suggest that students' technology use in classrooms

needs to be understood within the broader "lifewide" learning spectrum, in relation to their

interests and purposes for reading and writing. At the same time, we need to understand

students' uptake and stances toward teachers' technology use within classrooms.

Expanding on McCarthey's (2002) categories of appropriating (fulfilling teachers'

expectations), resisting (finding ways around curriculum), and transforming (altering norms

to create spaces to be successful) classroom expectations, this study identified ways 8th grade

students' in-school participation using technologies in a humanities block was influenced by

out-of-school practices as well as the teacher's curricular expectations. We focused on

students' networked digital media use as facilitated by a range of instructional technologies

offered by the teacher. We asked: (a) What stances are students taking toward sanctioned

technology use? and (b) What classroom factors facilitate and inhibit these stances? Through

the lens of third space, the study demonstrated that youth accept, leverage, and repurpose

tasks and technology use to achieve personal transcontextual literacy goals. We further trace

the in-school and out-of-school influences that contributed to students' stances.

Methods

Participants

Members of the research team had a long-standing relationship with City Middle

School (names of school and teacher are pseudonyms) and sought to examine teacher and

student literacy practices in a technologically rich school environment. An 8th grade teacher,

Mrs. Palmer, received a class set of Chromebooks in concert with a schedule shift combining

language arts and social studies within a smaller middle school team. Mrs. Palmer's classes

reflected the demographics of the ethnically diverse school (12% Hispanic, 37% Black, 39%

White). Sixty nine percent of the students were low-income; the school performed below the

state average on reading tests. The participants reflected the school diversity with the

exception of gender; 15 of the 28 girls and only 1 of the 17 boys from the two classes had

parental permission to be interviewed. See Table 1 for a short description of a representative

set of the 16 participants, their technology use, literacy interests, and sponsors (Brandt, 2001)

for those literacy interests, as we came to know them through the interviews.

Table 1. Participants' Technology Use, Sponsors, and Preferences

Pseudonym	Ethnicity/ Race	Gender	Out-of-School Digital Technology Use	Literacy Sponsors	Personal Interests/ Preferences
Greg	AA	M	social media	Mother, Father, Aunt	reading adventure books, basketball, drawing, and social justice
Maddie	W	F	Laptop, school assignments	Mother, Father, Sister, Grandmother	reading biographies and mystery, journaling, writing poetry
Aaqilah	Middle Eastern	F	GoodReads website	Mother, Father, Brother, Instructor	reading science fiction, fantasy and historical fiction, writing poetry and stories
Ava	AA	F	social media, blog	Mother	reading nonfiction, drawing, creating blog
Jillian	W	F	smart phone - texts and note app	Mother, Father, Cousin	reading romance and comedy, writing dramas
Serena	AA	F	Netbook tablet, Garage Band, online fanfiction	Mother, Brother, Cousin, Friends, Instructor	singing, sports, writing songs and stories
AA=African American W=White F=Female M=Male					

Mrs. Palmer was an experienced middle school teacher. A former participant in the

local chapter of the National Writing Project, she had published poetry and was eager to

incorporate technology into her classroom. As was the norm in her school, Mrs. Palmer

designed the classroom curriculum by specific texts (ex. *The Monkey's Paw*, *The Tell Tale*

Heart, House on Mango Street in Language Arts, *Lyddie* in Social Studies), topics (ex. the

Space Race) and genred activities (e.g., a eulogy for an animal, a debate between W. E. B

DuBois and Booker T. Washington). The teacher mainly used four digital platforms in the

course of her instruction: a classroom blog, Google Drive (predominantly Google Docs and

Google Slides), Scholar (an online writing environment that facilitates peer review), and the

emerging platform Google Classroom. She had a cart of Chromebooks positioned near the

door of the classroom, from which students would select their assigned computer when they

entered the room. Throughout the study, student desks remained in columns facing the

classroom whiteboard, though rarely was every student sitting straight up and front-forward

in their chair.

Data Collection and Analysis

Over five months, researchers observed classes twice a week for a total of 25, 60-

minute observations. Researchers conducted one to four 30-minute interviews with each

student (n=16) about in- and out-of-school writing practices and technology use, resulting in

45 interviews. One researcher interviewed the teacher four times (30-60 minutes each) to

understand her curricular goals, practices, and technology use.

The research team conducted rounds of descriptive and interpretive coding with

interview data (Saldaña, 2013), resulting in four categories with specific codes within each:

focal codes (preference, purpose, identity); *secondary codes* relating specifically to literacy

practices (genre, technology, sponsor, process, feedback); *context* (in school, out of school)

and *mode* (reading, viewing, writing, drawing). Each research team member focused on a

subset of assigned participants' series of interviews, composed developmental case studies,

and presented them to the research team. The team worked as an interpretive community,

meeting two to four times monthly to iteratively present our findings to one another.

We charted the coded chunks of transcript data to create a visual display of the

analysis (Smith, Hall, & Sousanis (2015); (see Figure 1), and inductively examined the

language in student interviews to identify thematic stances in their technology use (cf. Hull,

Stornaiuolo & Sterponi, 2013). This, again, was facilitated by rounds of interpretive

community analysis. We drew from Du Bois (2007) to identify three stances: *accepting*, (i.e.

patient acquiescence to requirements, often accompanied by antipathy or reluctance, but with

an eye for enjoyable aspects); *leveraging*, (i.e. pursuing preferences and purposes by bringing

knowledge and skill stemming from one context to bear in another); and *repurposing* (i.e.

changing tasks to fit preference, purpose, or overarching goals).

Figure 1. Visual data coding table used in interpretive meetings

Figure 2. Codes in data table used in interpretive meetings

An example of a quotation from Serena involves multiple codes and demonstrates the coding

process:

I do a lot of -- especially with this particular series [Warrior Cats] -- you have to have

all the characters out -- all the characters have different names, and have to have a

certain name. And each name is like a personality, so the first time you have to know

how many names I'm going to need. So I spend a lot of my summer writing different

name ideas, and different personalities, what color and like what kind of fur they

have, and all that other stuff. So it just -- I did a lot of the technical stuff during the

summer. And when school started, and I realized we have Chromebooks, I decided I

was going to work on it at school.

Serena's quotation was coded for: *technology* (she mentioned Chromebooks and inferred use

of another technology), *process* (she described an aspect of her writing process), *in school*

and *out of school* (she wrote during the summer months but decided on transferring the skill

to school), and derived the thematic code *leveraging* (she specifically discussed using

previously gained knowledge and skills to a new context). We coded each interview for all 16

students using these categories.

Interviews with the teacher, Mrs. Palmer, were analyzed to identify her perspective of

sanctioned and unsanctioned technology use in the classroom space. In relation to the

interviews, we compared the teacher's and students' technology use and participation from

observational field notes. Observations were analyzed to identify patterns in the teacher's

assignment parameters and student interactions during technology use. To identify factors

influencing students' stances, we used both the observational data and the interview data

from the teacher and students.

Findings

Teacher-Sanctioned Technology Use

After the class was gifted a set of Chromebooks, Mrs. Palmer set out to design daily

literacy activities that took advantage of the new technology. She used four digital platforms:

(a) a classroom blog, (b) Scholar, an online writing environment; (c) Google Drive, a writing

and file management platform; and (d) Google Classroom, an emerging digital classroom

management tool. Each of these tools was aligned with specific classroom activities for

students' receiving curricular materials and submitting their work.

Mrs. Palmer developed her school-required classroom blog to provide a record of

class activities and a place to post resources for both in-class and out-of-school. She used a

weekly calendar template to outline class activities and post some digital resources (i.e. files,

hyperlinks). During a short story unit, Mrs. Palmer described the multiple resources she had

put on the classroom blog:

> I put a link to the Gutenberg listing of all of Poe's works just so that the kids, you
>
> know that's a resource so that they're interested in that. Of course they have a copy of
>
> the books there but they also – you know a copy of the story and the book – but they
>
> also have his entire work sitting there from the Gutenberg Project that they could
>
> access.

The classroom blog served as a digital alternative to the textbook and an extension

opportunity for all students. Mrs. Palmer controlled everything that was posted on it, and

used it solely as a dissemination tool.

From previous work with the research team, Mrs. Palmer had experience with

Scholar, an online writing environment. The Scholar writing environment consists of four

components: Creator, Publisher, Community, and Analytics. Creator is a word processor

where students compose, review, and annotate each others' multimodal compositions; Mrs.

Palmer used it to facilitate two essays. Publisher, a space where teachers design and manage

projects with forms of peer review, includes rubrics with specific criteria; Mrs. Palmer used it

for peers to review each other's work. Community, a discussion space, provides access to

classmates' profiles and a discussion feed for interaction; with it, Mrs. Palmer asked students

to conduct in class 'discussions' and pre-writing. Analytics, a tool that displays machine-

enabled records of activities, projects, and assessment results, was not used during the time of

this study.

Google Docs, a browser-based word processor, was a third digital platform in the

classroom. Mrs. Palmer was familiar with the tool, having used it in various professional

development sessions. She commented, "It's a new tool that's available to me and something

that I'm becoming familiar with as a professional and I think that there is a lot of

advantages." When she reflected on the differences between Scholar and Google Classroom,

Mrs. Palmer highlighted the functional roles that each tool played for her:

> I think that there are some advantages over Scholar for me in terms of just kind of
>
> those basic assignments that I just want typed up and turned in to me in terms of file
>
> management and just getting to me it still is easier for me then, because I grade by
>
> assignment, not necessarily by opening a portfolio of work by the student because
>
> that's a lot more clicks and stuff, especially when you're doing it electronically.

This excerpt shows Mrs. Palmer distinguishing between the tools based on her primary

purpose for them. Her workflow primary, she preferred the tool that made it easier.

Mrs. Palmer also introduced students to Google Classroom, a web-based platform that

facilitates organizing and managing classroom assignments, grading, and communicating

between the teacher and students. During the course of the study, Google Classroom became

an increasingly robust platform that Mrs. Palmer took advantage of for dissemination of

resources. As she learned the features of Google Classroom, she used it to facilitate

giving/receiving student work as well as giving resources. For example, she would post notes packets, readings, and handouts, some of which students could edit within the Google Drive environment and other that they could not (ex. a PDF of a data table).

Looking across the platforms, Mrs. Palmer considered the logistics of students' workflow and access. For example, she wanted at least one platform to be a consistent space for students so she could "get them to go back to that spot for directions and then where to go to get the information, so like you know a distribution point basically for the information." Early in the year, as Mrs. Palmer navigated her primary digital spaces - the classroom blog, Scholar, and Google Docs - and described herself as "trying to figure out how to make that work. So in terms of my thinking it is how do I present this information so it's not confusing the kids, but they see these tools and how they can work together." Near the end of the study, Mrs. Palmer looked forward to the year after, because she knew the 7th grade teacher had used Google Classroom and the students "will be familiar with Google Docs and I can just make a [Google] Classroom." In these examples Mrs. Palmer foregrounded the efficiency and function of each tool.

Mrs. Palmer was positive about her students' use of technology, especially as it related to having access at home and increased turn-in rates of homework. Often projecting a growth mindset about her own use of digital technologies, Mrs. Palmer said, "For me it's just, it's always everyday something different. You know, and I'm just like 'what do I do now,' 'what do I do now' because every time I tried it's like, 'This is not working. Now what do I do?'" She thought that using technology was important for youth "because I think that's something they'll encounter in the future at the high school and also just out in the world." Considering Mrs. Palmer's use of digital classroom tools, she consistently paired a specific tool with a specific purpose and situated herself as disseminator and receiver of student work.

Students' Stances

Within and against the range of teacher-sanctioned activity, students demonstrated

three stances toward the sanctioned activities in the classroom: accepting, leveraging and

repurposing. These stances were not only indicative of students' attitudes toward reading,

writing and creating across contexts, but they also represent a critical range in the degree to

which students exhibited agency and contributed to the potential for third space moments in

the classroom. To clarify each stance and show its relation to the ways each stance functioned

to produce third space moments, we provide examples of times when students overtly

displayed particular stances; however, students often expressed more than one stance toward

the use of digital technologies as designed by the teacher. In the second section, we articulate

examples of the influences we traced across literate practices, and provide an explanation for

the stances youth took up and expressed.

Accepting

We defined the *accepting* stance as acquiescence to task or behavioral requirements;

not surprisingly, students often accepted the tasks and formats they were asked to work

within the classroom. However, we witnessed a range of ways students acquiesced to

requirements, often accompanying their acceptance with indications of apathy, reluctance or

enthusiasm. For some students acceptance simply seemed to be a path of least resistance but

they managed to keep an eye open to potential enjoyable aspects of tasks. Greg, for example,

described the requirements for assignments using language such as "has to do,"

demonstrating implicit acceptance. For one assignment, students were asked to write a eulogy

for an endangered animal. Greg explained, "I'm **supposed to write** – I haven't started it

yet...I **had to write** a eulogy for the animal that I'm doing. I wrote I think a paragraph from

Reflections on Life in the Trenches; I **had to write a thing**, like a diary on day one through

six; **I had to do** that too." Such obligatory language often placed the teacher's intentions and

objectives at the center of the conversation, rather than the student's thoughts or interests.

This kind of recounting was typical of indifferent acceptance, but did not mean that a student

was unaware of his or her own stance and the role that context played in dictating it. Greg

was clear about his audiences and differentiated between home and school saying,

> It depends on my environment. Like say I'm in class, I really like to see, understand
>
> what the teacher expectations, what they're looking for. But if I'm at home or around
>
> younger (people) I'll look for something more funny and entertaining.

Greg demonstrated a sophisticated understanding of home and school contexts in comparison

to each other. One environment required obeying the teacher's intentions while the other

allowed for more freedom and fun. While he indicated he would complete assignments, Greg

did not show enthusiasm, but rather apathy to the required tasks.

Callie, too, accepted classroom norms. She did not have any favorite projects, but

thought, "they're all kind of equal." She described an assignment using similar language

which evoked requirements over interest, "We **had to read** our eulogy; we **had to make a**

graph of population growth or decrease we **had to draw** like where it lives, and a map of

where it lives." Like Greg, Callie seemed to accept tasks as a matter of routine, but did not

necessarily express enjoyment or excitement around them.

It was not uncommon, however, for students to express enjoyment in some aspect of a

task or platform. Maddie's acceptance involved patiently waiting for such moments. She

noted, "We also do Quick Write on Scholar where **she gives us** a question and then **we have**

to think of our honest opinion about it, like what we would do in that situation. So, it's

actually pretty nice." The combination of language around assignment expectations and

personal preference (in the form of "it's actually pretty nice") suggested an intersection

between the parameters of the assignment and feeling of enjoyment around completing at

least some aspect of it. Maddie provided other examples of assignments she enjoyed,

especially using the Scholar platform. She said, "When we did use Scholar we were watching

this movie called *The Freedom Riders* and then we did a thing on Edgar Allen Poe also, and

that's the one I actually liked." In referencing "the one" assignment she actually liked,

Maddie expressed a key feature of acceptance, patiently waiting for moments when a window

to one's interests might suddenly open. Later she noted her interest in Poe, saying,

> *The Telltale Heart* and it would just make you stop and be like, 'Okay we get it. The
>
> heart is beating. What happens next?' like he keeps you there and he makes you mad.
>
> But actually, I like put that in an essay because it was actually really good. So, that's
>
> what we did in Scholar.

Acceptance was also accompanied, at times, with reluctance. Ava, a student Mrs.

Palmer consistently reprimanded for talking, resisted certain rules and boundaries of the

classroom space, while simultaneously accepting the content of specific assignments. From

the observational data, it was clear that Ava and the instructor clashed often, usually as a

result of Ava resisting rules around talk and technology use in the classroom. A few times,

this resulted in Ava's dismissal or removal from the class. One of the norms she resisted was

working in groups, saying,

> Well, it comes down to working with groups and things, I'm not a good person to
>
> really work with them, but I'm more of a person that's kind of individual. I want to do
>
> it on my own, so I can really challenge myself. When **they tell me**, "Oh **you have to**
>
> **work with a partner" or you have to work in a group**," I'm not really that type of
>
> person that does that.

When given the option, she relished the opportunity to work on her own rather than in groups. She noted, "When I have a choice, I don't do it..." The notion of choice or even perceived choice is critical to the ways acceptance operated in the classroom. As students usually described accepting using teacher-centered language, the role of choice was often in the background or even nonexistent. For Ava, the inflexible nature of classroom norms around how to work and with whom meant that acceptance was not always the result of willingness. Sometimes sent out of class for calling out her responses or questions, Ava tried her best to get along when she returned to class, saying, "I come back in and I sit down, and I'm quiet. . . If I have another answer, then I ask it, and if I don't get my question answered, then I try my best to stay quiet." In her statement, Ava revealed an ongoing tug of war around acceptance, which often ended in her surrendering to the classroom norms, at least for a moment in time. Ava was also aware of the parameters of technology use:

> We did this one paragraph, a summary about a movie called *The Freedom Riders* and **we have to do the summary stuff and we post it;** it was kind of like a Facebook. We posted a lot of pictures and stuff on there; **you're not allowed to post something** on what scares you; **you're not to post a picture** of it.

In her description of the summary task, Ava quickly switched from talking about what she and her classmates did (post a lot of pictures) to what they were not allowed to do (post pictures of scary things). This swift change in topic and tone is important because it indicated how salient rules, restrictions and parameters were in her conceptions of classroom writing.

As illustrated, when students were asked to describe assignments, they often used language expressing requirements to complete tasks. Yet, there was a range within the accepting stance from merely fulfilling expectations, to occasionally enjoying assignments to the reluctance expressed by Ava. Grades, expectations for task completion, and most likely

past experiences with "doing school" converged into students accepting stances in the

classroom. Taking up these stances aligns with Freebody's (2013) claim that after many years

of schooling students closely observe the classroom interactions and can understand

expectations and rules for appropriate participation. However, as demonstrated in the next

section, some students went beyond mere acceptance of classroom norms and were able to

leverage their out of school experiences, reading and writing habits, and attitudes toward

technology to their advantage.

Leveraging

By leveraging, we mean that students were pursuing their preferences and purposes

by marshaling resources, knowledge, skills, and literacy practices from across contexts to use

in another setting. When students leveraged their resources in the classroom, they often did

so in ways that aligned with the teacher's intentions including using networked digital

technologies in class. For example, during one class, Mrs. Palmer instructed the class to close

down their Chromebooks because "there's nothing for you to look at." Serena tilted her lid

down about 30 degrees, and then when Mrs. Palmer asked about the meaning of 'ology,' she

tilted it back up, typed into Google search engine, then tilted her screen down. At that point

she raised her hand and said 'the study of' which Mrs. Palmer wrote on the board. While not

sanctioned, Serena was engaged in using the technology in service of the lesson, leveraging

her knowledge of search engines.

Interviews with students revealed the range of ways they leveraged their knowledge

and skills (sometimes unsanctioned) to complete sanctioned tasks. Many of the students

leveraged personal topics of interest to refocus the tasks they were assigned to contribute to

their longer trajectories of interest. Kenya was able to leverage life experiences and interests

outside of school into her writing through four topics: her baby brother who had passed away,

music, drawing, and "certain things about me" (like that she had bronchitis and had to get an

inhaler on her birthday). When she was assigned to do an essay of an historical event, she

chose to work on a project about the Titanic because she had been studying about it since

third grade, leveraging her background knowledge on the topic. In another assignment to

write about a topic of interest, Kenya took advantage of the open-endedness of the project

describing her process: "I wrote about my brother. He was two months old when he died. . .

So I did it on him, and it got me all emotional, because -- yea, he was like a big, important, in

my life." Having been suspended for disciplinary issues, Kenya leveraged her writing and

drawing practices to help her get caught up with work she missed and as communicative and

therapeutic tools. She noted, "Like I have multiple notebooks, and then I have diaries that I

write about my day and stuff. Like if I had a bad day, I'll just draw it." She believed that

writing down her feelings was more effective than trying to talk to peers, saying, "I feel like I

can express my feelings on paper, than to somebody else. Because I feel like they don't really

understand what I'm going through, my point of view."

Maddie had many discussions and "debates" with her father about historical events

connected to classroom assignments. On the occasion of writing about Booker T. Washington

and W. E. DuBois she said,

> And then me and my dad (had) another debate on Booker T. and W. E. B. and we
>
> were actually talking about this yesterday: Who do you think had a better
>
> understanding, like, who do you think was better in Civil Rights and understanding? I
>
> chose W. E. B. because Booker T., he told, like, African Americans to just deal with
>
> segregation, just deal with it, like, don't fight for your rights... But—and then I told
>
> my dad about this and then he was like, "Actually Booker T. was better." I'm like,
>
> "Here we go."

Maddie's father ("he's a history freak" and "I basically think about him as my history teacher") also provided her with information and ideas about crafting her classwork. For her project on "warfare through different generations" she consulted with her father, "so it was really cool asking him about warfare. I'm like, 'hey dad, you want to tell me about warfare through different generations?'"

Sabrina leveraged her interest in dramatic stories and acting in her classroom reading and writing (e.g., using movie plots as inspiration for writing tasks; and doing dramatic readings in her mind of assigned passages to help with comprehension). She also used lessons learned from class assignments to compose stories when she was "bored." She took advantage of a poetry assignment to try writing a novel, and drew from transcontextual resources, including a school play and a movie, to do so. She explained:

> We had to write some poetry last year and I tried to write a novel actually. I kept rewriting it though...Actually we're doing *Alice in Wonderland Jr.* for the play – but last year, actually, I tried to do like an *Alice in Wonderland* theme – I kind of got it off the movie a little bit.

Further, she explained her use of story elements taught in school to organize ideas: "We have a computer at home but it's not mine so I can't really type it. I kind of just write it in my notebook like the characters, plot, whatever."

Leveraging was not only evidenced in how students utilized knowledge, skills and literacy practices from across contexts to inform in-school tasks, it was also demonstrated in the way students saw the boundaries between contexts as malleable and fluid. Aaqilah, a girl who had lived in several countries, leveraged her transnational experiences inside and outside of the classroom, brought her extensive reading and writing out of school experiences into the classroom, and also used technology resources to enhance her learning. Aaqilah leveraged

her passion for writing into entering both in-school and out-of-school writing competitions,

including poetry, short story and screenwriting competitions. She connected her home and

school experiences through her writing, demonstrating a sophisticated understanding of the

relationships between contexts:

> I've heard things at school that have large meaning, but what I'm writing a lot, like
>
> people like to open their eyes and see that there is a whole world out there that they
>
> can't just get stuck in [names town and state], you know? There is whole world out
>
> there with wars and with like crises, I can't say that word, and that they need to know
>
> that it's bigger; it's just bigger than us I guess.

Aaqilah's tendency to talk about her reading and writing as practices that move in, out,

around and across various contexts illustrated her ability to leverage literacy in multiple

directions. She even leveraged media for her writing. She explained, "I'm writing freely . . . I

sometimes subscribe to this channel about poetry and it's just like the best; it has people just

putting their emotions out with their poetry." Other online spaces that she leveraged included

an online website called Good Reads. She noted:

> It's like this website where they decide which is the best book of the year that just got
>
> voted for and you discuss with people about books and books and books and you
>
> should really see it; it's really cool. It's like Facebook, but a book instead of
>
> Facebook, and you have like a To Read section, a Currently Reading section, a Read
>
> section, all of these sections and a use for all the books you want; it's like the best set
>
> ever, ever.

Aaqilah was strongly supported by her mother who encouraged her literate practices,

including entering a poetry competition. Several teachers across subjects were receptive to

discussions about her out-of-school writing and even recommended opportunities to her. For

example, in one of the discussions with her teacher about her passion for poetry, Mrs. Palmer

suggested taking some classes offered out-of-school called "How Writers Write." Aaqilah

expressed excitement about working through the classes in her own time, noting, "and I'm in

session two, and it's really, really good." Her passion for writing meant she was always

working to make connections and meaning across contexts, to cultivate this craft as a way of

life rather than a means to an end.

Across cases, we noted similar marshaling of transcontexual resources, knowledge,

and skill as youth pursued preferences and purposes. Kenya used her own personal

experiences, researched topics of interest to her, and used writing for an emotional outlet,

while Maddie drew extensively on her discussions with her father to complete class

assignments but also to deepen her own learning about content and events. Sabrina used

media and previous writing to aid her in current projects, and Aaquila employed her passion

for reading and writing in ways that forced boundaries to become malleable and fluid, using

technology to bridge formal and informal literate practices. The examples demonstrate how

students can go beyond simply accepting school norms to use what they have learned in other

settings to meet classroom expectations as well as their own goals.

Repurposing

Although the least employed strategy, some students *repurposed* task parameters such

as time, materials, and technology to fit their preferences, purposes, or literacy goals**.**

Repurposing differed from leveraging in that students worked to change the task, pushing up

against the practices sanctioned by the teacher, to fit their personal preferences for reading

and writing, rather than working to comply with the teacher's goals. Often repurposing was

accompanied with implicit or explicit resistance or critique of the task or mode. For example,

Jillian discussed using time allotted for group activity to write with her preferred utensil--her

smartphone. She said, "**Sometimes I try to write here without the teachers finding out**, because they don't like me on my phone, but if I'm in a group they'll let me be on my phone and I'll just write in there." The group activity provided cover for Jillian's preferred writing tool.

While completing a data table assignment for social studies using the Chromebooks, one student had her research on the screen and was writing her findings by hand. When Mrs. Palmer asked her why she wasn't typing her findings, the student replied that she would just type it up later. Mrs. Palmer chided, "but that's so much extra work. Do you know how to split the screen?" The student replied that she knew how to, but preferred having the data on the screen and her notes on paper. At that point, Mrs. Palmer shrugged and left her. This excerpt shows Mrs. Palmer's preference for using specific tools in specific ways to efficiently complete an assignment, while the student assembled digital and non-digital resources to her preferences.

Corrine stumbled upon a way around the Scholar review system, seizing the opportunity to work with her friend in giving feedback. Instead of remaining anonymous using the review feature in Scholar, as Ms. Palmer required, she talked to her friend about the feedback she received. Through dialogue, they both discovered that Corrine's friend was in fact the anonymous reviewer. Following this discovery, they continued the unsanctioned talk about Corrine's work, clarifying the feedback and creating their own understanding. Thus, the students essentially bypassed the anonymity of the review system to fulfill their own goals while still completing the task. However, they did not use the review system in the way the teacher intended.

The repurposing stance also exposed some tensions between the teacher's perception of appropriate technology use and the students. In an interview, Serena explained, "I have a

Netbook. It's like a tablet thing. So I got that. And then, even though I have to share with my

brother, **I can use** my Google account at school--you know, so **I can use** it at home and at

school." In one instance, she was assigned to take a definitive number of notes in a Google

Doc while watching a documentary in class. Having completed the minimum number of

notes, Serena repurposed the remaining time to continue work on her personal fanfiction

piece that she had saved in a GDrive. While Serena saw the potential of the technology to

give her access to her work inside and outside of school, Mrs. Palmer had a different take on

the students' accounts. She recognized but did not approve that some students reappropriated

class time for their own purposes on the tablets. Mrs. Palmer described Serena's out-of-

school writing (fanfiction about warrior cats) as an effort to "avoid her real work ...She's

writing a story and sending it to me for comment, and I just finally said, "Serena I'm not

going to comment on this story if you're doing it while you're supposed to be taking notes on

the video for social studies." This repurposing was an unsanctioned use of the platform, yet it

continued non-school literacy activity.

Some students, then, repurposed time, roles, or the technology to satisfy their own

preferences for technology use. The repurposing stance undermined some of the teacher's

tasks and beliefs; however, different from the ways resistance is often characterized (cf.

McCarthey, 2002), students accomplished the teachers' goals rather than explicitly ignoring

or challenging them. They were engaged with learning the course content, but did so on their

own terms.

Potential in Leveraging and Repurposing to Enable and Extend Learning

The varied stances students took up toward task and technology in the classroom

(including reading, writing and creating) were multilayered. In other words, it was not just a

matter of either accepting or resisting activities. There was much more nuance and

sophistication prevalent in students' stances which revealed critical opportunities and

potential barriers to meaningful engagement. For example, accepting an activity was not

always productive in terms of fostering agency and engagement in learning activities. There

were many instances of students simultaneously accepting and remaining rather apathetic or

reluctant about a particular task. Although this may seem advantageous if controlling

behavior is the goal, often students who were taking up this stance displayed disengagement

with the materials, sitting back and going through the motions.

While leveraging and repurposing could appear disruptive on the surface, these

stances also worked to serve a more significant educative function. The acts of leveraging

and repurposing cultivated more agentive learning with tasks and technology use, presenting

the potential for third space openings, and building bridges to more meaningful engagement.

Students who were able to leverage or repurpose often displayed a desire to carry their

learning across contexts, breaking down rigid boundaries and becoming active participants in

their learning.

Factors Influencing Stances

To gain a better understanding of how and why students took up these stances, we

used interview and observational data to identify factors that influenced the stances students

took up: barriers to and facilitators of leveraging and repurposing. The barriers included

restricting activities to particular platforms, narrowed orientations towards curriculum, and

lack of attention to out-of-school practices. The factors that facilitated students' abilities to

leverage and repurpose their knowledge and skills included access to technology and the

influence of sponsors.

Barriers to Leveraging and Repurposing

Along with instructional tasks, Mrs. Palmer designed behavioral boundaries for

Chromebook use. Some of these were bound up in classroom routines; for example, the

teacher had students pick up their assigned Chromebook when they entered class and put it

away when they finished their lesson. These boundaries were reflected in instructional design

and classroom interactions including, (a) restricted activity to particular platforms, (b) narrow

orientation to curriculum, and (c) lack of attention to out of school practices. (For extended

analysis of Mrs. Palmer's instructional approaches, see Kennett, 2015).

Restricted activity: Platforms and assignments. Mrs. Palmer associated certain

platforms with specific types of intellectual work. She stated, "Last year when I did Scholar,

and we really hit revision very heavily, the kids learned how to revise. And with Google

Docs, we're not doing that piece nearly as much as we should." She saw Scholar, with its

Structure tool, as the platform to turn to for essay organization. She reflected that Scholar's

Community tool was helpful "for the *Monkey's Paw* in terms of the pre-reading activity and

that classroom discussion, and like the kids said I think it gave everybody a voice in there and

brought out – it had people talking who wouldn't necessarily have talked and so I liked that. I

really felt that really went well." Consistently, as Mrs. Palmer shared her planning for

instruction, she paired specific tools with particular tasks.

Mrs. Palmer saw the matching of each assignment to a particular platform (e.g.,

Scholar, Google Docs, Google Classrooms, paper and pencil) in a positive light. However,

the observational data showed that the teacher restricted the use of certain platforms, and did

not allow students to combine platforms or use apps they might be familiar with outside of

the classroom. During one period, Mrs. Palmer sat down at the front of the room to read

aloud a short story. She instructed the class, "Everyone, close your Chromebooks so I know

you're not surfing the web while we're reading." When a student asked if they could read it

themselves, Mrs. Palmer replied, "You can but I'm going to read it out loud because the

language is archaic." Rather than allowing students to look up archaic language with their

computers, Mrs. Palmer relied on her expressive reading to make the meaning for them, not

stopping once throughout the reading.

Students were aware of the one-platform-one activity norm. Kasey explained

restrictions as they applied to the Chromebooks and technology workflow in the classroom:

> . . . whenever they have an assignment for us, it goes straight to my phone. . . you log
>
> into your Gmail, and it sends it right to your phone. You're not really allowed to --
>
> like you're like what the teacher sends you, you can't really do anything.

Jillian experienced the limitations of one assignment-one platform when she described

composing in Scholar but having to submit another assignment in Google Docs, saying,

"we'll read books in class and write on Scholar, like a page and have to transfer it over to

Google Docs and send it to the teacher." Clearly savvy about navigating multiple devices and

platforms, these students were restricted to specific means to accomplish the assignment.

The platform restrictions were reflected in other curricular limitations as well. When

students had choices about reading and writing genres, writing topics, and whether to work

with partners, they were more engaged in the projects and were able to leverage their

resources. Aaqilah emphasized the importance of having a choice in genre in her out-of-

school writing, "Okay this is much different because this is – like what I'm writing is

freestyle and I'm writing poetry and things that like have large meaning." She further

elaborated on the differences between writing what she wanted versus meeting prescribed

assignments:

> I actually write poems extremely quickly. Like the newest poem I wrote, I wrote in
>
> one day. And I love it. Okay, but that's not the point. The point (is) it was kind of

forced on me. . I didn't want to write about that, when I just could've had freestyle.

This was like, you have to at least two of these, and you have to have this and that,

and you can't use that, and those are weak words.

When asked what she thought the difference was between her favored project and *The House*

on Mango Street," Kasey said, "I actually got to pick out what I wanted to read instead. . .I

did the poster. I had to present," which she enjoyed.

The restriction of specific platforms to specific tasks served the teacher's goal of

managing multiple writing assignments and keeping students accountable. However, students

appeared to be more tech savvy than the teacher credited them for and found that the aligning

of platforms to assignments restricted them from using their knowledge of digital technology

and limited their choices. These restrictions highlighted the teacher's traditional orientation to

curriculum in spite of her embrace of technology.

Narrow orientation to curriculum. Mrs. Palmer's expectation of students' adherence

to curriculum was undergirded by traditional practices. She established patterns for activities,

genre requirements, and instructional activities in accordance with traditional, school-based

norms for success. In one classroom observation, Mrs. Palmer told students that if they were

done with their assignment, they could use a pre-loaded 'match the US states to their names'

app on the Chromebooks. When a student inquired further as to the purpose of the activity,

Mrs. Palmer responded, "You need to know where they are. It's an 8th grade thing we do in

Social Studies. The test is in November." By justifying this activity with the grade-level,

departmental rationale, Mrs. Palmer affirmed that school requirements were enough of a

reason for students to comply.

Focusing on the technology rather than students' responses sometimes resulted in

shutting down conversations that might have been facilitated by media. For example, when

framing the task to write to a YouTube video creator to say "whether or not he captured the spirit of the story, the theme, the message," one student piped up saying "I got the shivers." Mrs. Palmer's response was, "I thought it was a really well done video, what gave her the shivers? But whether or not it got Bradbury's point is up to you." The next student's question - "What happened to the people? What happened?" - was ignored as Mrs. Palmer re-started the video. Mrs. Palmer proceeded to read the entire story aloud, not stopping at any point in the story, though expressively acting it out, including pace, gesture, and tone of voice. An opportunity for a more extended conversation was lost as the teacher focused on the video itself and her own interpretation, not students' responses.

During the course of the school year, Mrs. Palmer was concerned with the students' writing abilities and mentioned multiple times her efforts to support students' writing. She reported, "I really want to help them get the structure down. I was talking to other social studies teachers and that day and other language arts teachers, we're planning the same thing because kids are coming out where they don't know how to write. I mean this is the worst I've seen it." A focus for the year, across the department, was writing Evidence Based Arguments (EBA's). To this end, she emphasized primary documents, including designing multiple assignments to reinforce the focus on evidence. She said, "The articles that we're reading in social studies – a lot of the questions are really geared towards what evidence did you see, you know and what's different between this article and this article... what evidence do you see from this article?"

Mrs. Palmer had specific goals, shared by her colleagues, to focus on argumentative writing and for students to know the states. However, in her attempt to fulfill these goals she sometimes shut down conversations and her justification repeatedly deferred to supposed limits and demands of a curriculum. The message to students was that the established

curriculum was the driver rather than students' ideas; purposes of instruction were limited to

school-bound expectations and did not build on students' out of school practices.

Disconnect between student and classroom literacy practices. Comparing the

observational data with students' interviews, it became clear that the teacher rarely

acknowledged or built upon students' background knowledge, literacy habits, or technology

use outside of the classroom. For example, when talking with students about a classroom

topic, Mrs. Palmer often told extended stories, but did not invite the stories of her students.

There were times that students offered up stories about their experiences, but Mrs. Palmer did

not engage with them. Students verbally engaging with the task but not being acknowledged

by the teacher happened one day while Mrs. Palmer read aloud a story. In a lesson structured

around reading with pauses for predictions, during a reading segment, a student exclaimed "I

knew it!" but the teacher did not stop reading. Students were expected to write their

predictions in the digital space, not verbally during the read aloud.

Students shared some of their rich literacy practices with the research team. For

example, Ava kept her out of school writing interest to herself, and preferred writing out of

school, "but I'm not the type of person who writes in front of everybody and talks in front of

everybody." She also described herself as a "creative person. I like to create things, you know

I do like to draw a lot." She was inspired to start a blog from observing another girl. She said,

"Well I've seen this girl and this girl she started a blog about cyberbullying and I wanted to

start a blog about bullying bystanders and how they can take kids' lives and things like that."

It was not the writing of the blog per se that motivated her, but her passion behind the topic:

> Because I want people when they get on there not to feel sorry or anything like that,
>
> but to think about cyberbullying or bullying and it's not okay and it's the right thing

to do and letting people know what to expect if you get bullied, or to show or to do or

get examples or if somebody...go and tell that person to stop.

While Ava willingly shared her out of school practices with us, we saw little evidence of the

teacher's knowledge of Ava's interests or self-identification as a "creative person."

The barriers described above work against the creation of a third space in the

classroom. We see examples of students' desire for choice, for using their digital knowledge,

as well as for invitation of their life experiences, abilities and knowledge from outside the

classroom; yet the teacher, perhaps hampered by curricular policies, did not build on

students' backgrounds or engage them in discussion. Thus, much of the potential to motivate

students to write in a variety of genres, to engage with texts, and to merge their cultural

capital was lost (Skerrett, 2010). Yet, just as the teacher shut down opportunities for students

to integrate out of school knowledge with school practices, there were several factors that

facilitated students' ability to leverage their knowledge and repurpose the tasks.

Facilitators to Leveraging and Repurposing

There were several important facilitators that led to students leveraging or

repurposing their out of school experiences and literacy habits into the classroom. These

included the technology access in- and out-of-school and supportive sponsors.

Access to technology. The class set of Chromebooks was housed in Mrs. Palmer's

classroom. As the year progressed, she found that students had a positive relationship with

the digital writing, noting that they were "giving me better answers. And, you know, I just

think they feel more comfortable with the technology. They feel more comfortable with

writing because they're doing it." Mrs. Palmer was pleased with students making connections

with their Chromebooks. For example, she identified student ownership, "I know that the

kids are taking ownership because they're changing their wallpaper, things like that." Our

observations revealed that students were often engaged in sanctioned technology use. One

young man declared in a discussion activity using Scholar's Community feature: "this is

helping me learn!"

Students embraced the technology at school and some took advantage of the

technology at home to pursue literacy practices. Corinne liked the Community function of

Scholar, "It makes it social. You could just kind of connect with your friends. . .And I love

the messaging part. That's really helpful." Jillian articulated her ability to use technology to

write about her feelings:

> So when I can write I can tell – I can express my feelings about the whole thing and
>
> stuff. I like to talk to my parents I can text them, telling them and it will sound all
>
> good and then like when I go to (tell) them it sounds like really weird and stuff; I
>
> don't know, I feel like when I text and when I write books on my phone it's better
>
> than saying it on paper or out loud.

Texting with her cousin also provided benefits to both:

> Only to my cousin because she has an iPhone and I have a Galaxy so I screenshot it
>
> and I'll send it to her and I'll ask her if she likes it and she ends up telling me yes or
>
> no and then – like her opinion means a lot to me because she writes a lot and likes my
>
> opinion and it means a lot to her and her books.

Jillian's consistent use of her phone as a writing tool allowed her to access various familial

audiences. While she was often told to put away her phone in class, her writing process was

clearly facilitated by using it as a flexible tool - among them, typing, taking screenshots,

asking for feedback.

Nina, who had access to computers at home, noted the benefits of laptops over pen

and paper and how they facilitated her ability to work seamlessly from home to school. She

said:

> So with the Chromebooks, you have everything you need. Like, if you're stuck on a
>
> question, or you need more information, you can just get right on the internet. When
>
> we have paper, we don't really have that option to use, unless we have the iPads or the
>
> laptops from school, stuff like that, or unless she said, you can take your phones out
>
> just for this assignment. Yeah, I feel like I do more work when I'm at home. Like, so
>
> say I didn't finish, and I finish at home, and there's another assignment, and I know
>
> we're going to do it tomorrow, I just would get started on it, so I would have more
>
> time to finish it tomorrow. Now, if we had paper, it wouldn't be like that, because
>
> they have the paper here.

For Nina, the Chromebooks provided flexibility for completing the curricular task. With a

variety of situations she could find herself in, Nina focused on the affordances Chromebooks

offer as they enabled her to fulfill the assignment.

At home Laura used a number of devices and online programs to facilitate her

writing, mostly with peers. She described an earlier practice with friends,

> I used to write about this group called Mag-Con and they had a lot of guys in there
>
> that I liked, so I wrote about like me and my friends wrote about this fantasy thing in
>
> 7th grade. We were just like dreaming and stuff.

Laura shared that a program for group chat inspired her to write online, "Kick is where like

you just talk to people, you can make group chats and it was really cool. . . so I made a group

chat and a picture of all three of us as the superheroes. . .I got inspired by all those people

writing those so just wanted to write a story." She kept in touch with friends at her former

school through chats and writing. Technology provided access to her old schoolmates and to

those online who shared her interests.

Access to classroom technology facilitated students' writing preferences both in

school and out. Student-owned technology provided them access to audiences not available

otherwise. The combination of devices illuminates what conditions are necessary for

supporting students' literate practices. While access to technology may seem like a low bar

for creating third spaces in classrooms, it is a necessary first step for teachers and students to

begin to change traditional practices.

Sponsors. One of the emergent themes that came from the interviews with students

was the role of sponsors in their reading and writing habits (Brandt, 2001). Students often

cited parents, siblings, relatives, or friends as performing roles as models, audience, feedback

providers, or critics. Serena described her mother as an author who inspired her, "she writes

Christian stuff. She wrote a book of poetry of poems that she has written throughout her life

basically and then she put it all together and made a book, people liked it, and then for years

she has been working on this book." Aaqilah's mom shared information about the arts

competition, "Well my mom, she heard about it; I forget, but then she told me about it and so

I – this scholastic writing and arts competition. I just said let's go for it and I just put myself

in there and I decided that I wanted to make something different, you know; I don't want to

just have like a sad poem." Maddie valued her father's perspective so much that she wanted

to bring him into class, possibly to disrupt students' notions of history teachers, saying:

> He has literally seen almost every show on the History Channel. . . I want to bring
>
> him in. . . . I really want to bring him in 'cause I want everybody to be like, I want
>
> everybody to be like, is he a history teacher, like are you a history teach—no I work

at a factory. How are you so smart? And the thing is, in high school history was his

worst subject.

Greg's aunt served as a role model for writing poetry; he said, "My auntie, she's a

very good writer; she writes poetry and stuff. . . like sometimes she puts on a read and she

just like writes a lot of things, so. Yeah, but she makes her own poetry and she reads it

sometimes, and sometimes I hear her making it up too." He had written a Thanksgiving

prayer to share with his family including his mom who had previewed it. April talked about

the role of picture taking, "Me and my sister and my cousin and we take pictures every day

after school… it's fun… Because my sister – I write on it and my cousin comments on it and

my little cousin, mom comments on her little baby picture." Another of April's sponsors was

her brother, who wrote rap, and created videos that she participated in.

Peers who acted as an audience or provided feedback were also sponsors of students'

writing. Maddie noted the peer who provided helpful comments on her introduction and read

the peer review aloud, " I liked the intro you used throughout history, I also liked how you

informed us about how warfare has changed. Excellent paragraph. I like how you explain the

technology from different generations." Nina agreed, finding that feedback improved her

text, "There's something about it just helps me give their ideas, and it helps my paper get

better. And then my ideas can help their paper get better, so we're all helping each other out

in the end." Ava got recommendations from her peers about what to read, "one of my

friend's told me that it was good and so I was gonna try it and read it and I actually ended

liking it." Laura enjoyed reading and writing with her friends saying, "Like I read and write

like at my friend's house when we're just sitting on the bed not doing anything." Just having

an audience for out of school writing seemed important to Serena, "Well my neighbor she is

a 7th grade and she likes to read these books so . . . all she really does is say it is good, even

though I know there is probably something that she thinks is wrong with it but she does not

want to tell me, because she doesn't want to hurt my feelings or whatever, and I tell her to

like just say what she wants, but she still doesn't."

Mrs. Palmer also acted as a sponsor for in-class and out-of-class literacy activities. In

the Scholar platform, she created a Poetry Group. Students could join the group if they

wanted to write and give feedback on each other's poetry. She had three students who were

active in the group.

The facilitators acted as counterpoints to the barriers described earlier. Although the

teacher sometimes shut down some opportunities for students to engage with technology and

the curriculum, access to technology facilitated students' ability to leverage their knowledge.

Students not only used the digital environments available in the classroom, but they sought

ways to go beyond what was afforded. An important facilitator that allowed students to bring

in their out of school knowledge was the array of sponsors they had. In particular, familial

sponsors played a major role in acting as role models, mentors, and partners for their writing.

These facilitators provide a catalyst to third space moments that could be cultivated.

Conclusion and Implications

Our analysis shows a range of ways youth approach teacher-framed literacy tasks and

technology use, utilizing their preferences and out-of-school practices. While the teacher

created a variety of technology-infused opportunities, her monologic script along with

allowing only certain, sanctioned activities using technology provided few explicit

opportunities for students to reshape the social norms of the classroom to create a third space

(Bhabha, 1994). Still, students developed different stances--particularly repurposing and

leveraging--to merge their out-of-school practices with in-school tasks, demonstrating

potential for creating third space moments. Barriers to achieving a third space through

technology use included the teacher's restricting activities to particular platforms, narrowed

orientations towards curriculum, and lack of attention to out-of-school practices. However,

access to technology and sponsors, especially familial sponsors, facilitated students'

leveraging out of school knowledge and technology practices.

By investigating students' stances and the barriers and facilitators to them, we

identified third space moments. These were simply moments--there was not a consistent

curricular space provided by the teacher or facilitated by technology. Yet, the moments

students described where they brought in ideas from sponsors or saw connections between

their out of school literacy practices and school tasks showed the potential for students to

merge their cultural capital with curricular content (Skerrett, 2010). Leveraging and

repurposing stances reflect student agency, demonstrating that students can go beyond simple

acceptance of or resistance to classroom assignments or sanctioned platforms. These stances

also show how flexible students can be when navigating the teacher's sanctioned technology

and classroom tasks (Moje et al., 2004).

The study suggests that there is still much work to be done to help teachers integrate

technology into their classrooms as seamlessly as youth use it. Creating generative third

spaces in classrooms on a continual basis will be challenging given the complexity of

teachers' work, especially with the increasing demands to integrate technology. However,

there are several possibilities for continuing the work to create third spaces in classrooms.

First, while introducing students to specific platforms in the classroom, we can allow students

to use multiple devices and platforms; not only would this facilitate making use of students'

existing digital knowledge but it would assist in crossing boundaries between home and

school. Second, teachers could encourage alternative pathways, e.g., allowing students

choices in completing assignments using their own devices. Why not allow smart phones

where students may have jotted down notes, communicated with others, or drafted ideas for texts? Third, intentionally designing instruction that facilitates leveraging would have benefits for all students. For example, assignments might specifically ask students to reflect on out of school experiences. Finally, we need to consider the critical role of sponsors in cultivating students' literacy growth. It was notable that, when probed, students talked easily about the role of parents and older relatives as models for reading and writing. Youth in the study talked about sharing writing with cousins and peers; they had natural audiences for their writing. Teachers might build upon this by asking students about the roles of family members in literacy learning and specifically valuing these contributions.

Our study demonstrates that classrooms can cultivate student agency, supporting students in connecting ideas and strategies learned at home and in their communities to their classroom contexts. By continuing to bring technology into the classroom and allowing students to leverage their own knowledge of digital environments and out-of-school literacy practices, teachers can create more possibilities to enhance literacy learning within classrooms. Intentionally designing third spaces through digital spaces can facilitate students' understanding and motivation to become lifelong learners and more competent technology users. These suggestions can be applied in a variety of contexts, not only in the United States but in classrooms throughout the world, where teachers and students are grappling with ways to integrate technology and literacy.

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