Transformational Inquiry in Literacy & Digital Environments During COVID-19

Principal Investigators: Bethany Silva & Alecia Magnifico COVID-19 Task Force: April 27, 2021



TILDE: Who are we?

The TILDE project investigates how educators transitioned to remote learning. Our goal is to develop actionable recommendations for state policy and teachers' professional learning to enact more equitable digital literacies learning.

- Laura Allen, UNH Psychology
- David Baroody, Derryfield School
- Ashley Barry, UNH English
- Shawna Coppola, Educator Collaborative & Exeter SD
- Cathy Fraser, Prospect MountainSD

- Emily Geltz, Oyster River SD
- Anne McQuade, Manchester SD
- Christina Ortmeier-Hooper,
 UNH English
- Laura Smith, UNH English
- Donna Turco, Portsmouth SD

C-WRET at UNH: Our Mission

The Collaborative for Writing Research, Engagement, and Teaching (C-WRET) is a multidisciplinary research collaborative that:

- Focuses on developing student writers and readers at all levels (K-16).
- Connects researchers, teachers, youth, and communities through research-practice partnerships and sustained outreach.
- Builds upon UNH's traditions of research and innovation in writing teaching, literacy development, teacher expertise, and writing across disciplines and professions.
- Identifies implications for **policy and curricula**.

C-WRET

The Collaborative for Writing Research, Engagement, and Teaching at UNH (est. 2019)

Faculty and researchers from:

- English, Education, and Psychology departments
- University Writing Programs
- First-year writing
- UNH Extension/Outreach & Engagement
- Learning Through Teaching/NH Literacy Institutes
- Community and State-level Literacy Specialists/Teachers











Ph.D. Program in Composition Studies

Context: Assumptions about digital literacies

In the popular press (sometimes in academic literature), we see:

- Assumptions of access e.g. "Students will learn to use digital technologies once they have the right hardware."
- Assumptions of digital culture and digital natives e.g.
 "Students know how to use Tiktok, so academic content in digital technology form will be no problem."
- Assumptions of pedagogy e.g. "Good teachers know how to teach well in any context."

Context: Digital literacies in NH classrooms

NH ICT Standards were adopted in 2018; schools are required to implement them by AY20-21.

Most classrooms have remained largely unchanged until the COVID-19 pandemic closed school buildings.

We live in a world where people need to be **literate consumers and creators** of content across texts and multimedia.

Context: Research Questions

How was COVID-19 remote learning animated by ideas about **teaching, learning, and digital literacies?** How did these practices **ameliorate or exacerbate existing equity concerns?**

How did educators connect their implementations of remote learning to **NH's digital literacy standards?** What were teachers' innovations?

What do educators' understandings tell us about needs for **professional learning, student expectations, and state educational policy** related to digital literacies and remote learning?



Conceptual Framework

Several intertwining elements affect the teaching and learning of **digital literacies**, including:



students' **experiences** with digital content



teachers' pedagogical knowledge



access to digital tools and devices



Methods Timeline: Data Collection

May-June: Self-study through reflection logs

July: Examination of NH State artifacts (digital literacies standards, DOE survey of teachers and families)

December-January: Survey, co-designed by full research team (N=97)

December-January: Focus Group Interviews, co-designed by full research team:

- Rural district (N=3)
- Small city district (N=4)
- Large city district (N=4)

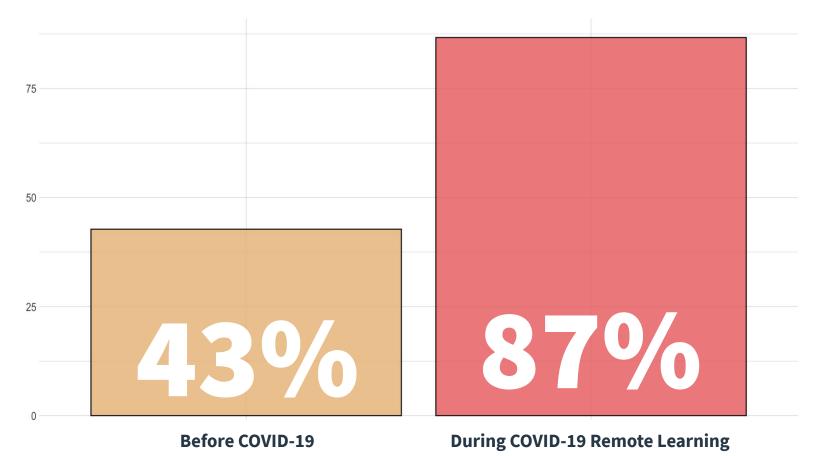


Methods: Data Analysis

Content Analysis Descriptive Review

Quantitative Analysis

Average Percentage of Classwork Requiring Computers or Mobile Devices



Survey Findings: Teachers did not look to standards

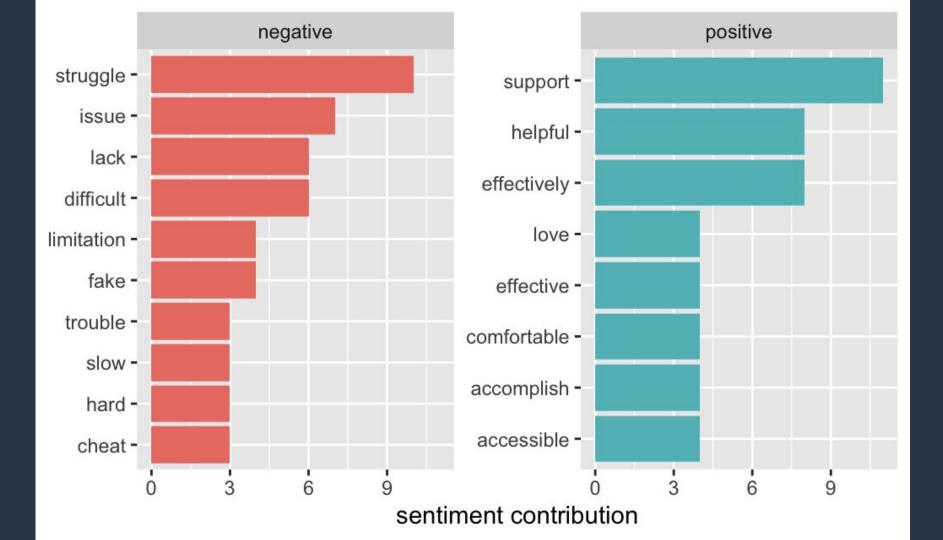
of survey respondents didn't use the NH or national digital literacies standards to shift into remote learning.

Survey Findings: Digital literacies knowledge varied

Q: When you hear the term "digital literacy," what do you think of or how would you define it?

"[Digital literacies] is something that I know something about, but is also a phrase that honestly kinda scares me... the ability to use different technologies but also an understanding of how they work, their advantages/ disadvantages, and when each technology/ application/platform works best."

"Online readings and books"



Sentiments about digital literacies

"Last spring it was... a hustle to catch up to the infus[ion] of technology, to try to catch up with things that we just weren't familiar with, whether it was **Google Meet, Screencastify, [or] any of the other programs** that made teaching or facilitating the classroom a lot easier. So it was a **struggle**."

- Robert, Rural district

Sentiments about digital literacies

"And so now, I think that we've had more PD in the past [months] since September than [we've had over] a three-year period of time. So it's pushing us to collaborate more. Everybody wants to **support** us, to help us learn things. But I think that, hopefully, we take away the lesson that teacher collaboration is a piece that we need to hold onto going forward, as well as the family communication..."

- (Tabitha, Large city district)



Conceptual Framework

Several intertwining elements affect the teaching and learning of digital literacies, including:



students' **experiences** with digital content



teachers' pedagogical knowledge



access to digital tools and devices



In the findings, we see more complexity

Several intertwining elements affect the teaching and learning of digital literacies, including:



students' **experiences** with academic digital content require **teacher innovation**



teachers' **pedagogical knowledge** changes when using digital tools



access to digital tools and devices is also about access to **socio-technical practices**



Student experiences & teacher innovation



students' **experiences** with academic digital content require **teacher innovation**

"I actually spent most of the summer thinking about how to do it better because I was so distraught from the spring with the ESL kids. So me and a colleague... decided we were gonna do Google Sites for our classes. And we thought through **how we could make it as intuitive for the kids as possible** [...] So we've made these Google Sites. I made a template and shared it with my department. Everything's right there... The kids only have to know the web address."

- Molly, Small city district



Teachers' tools and pedagogies intersect



teachers' **pedagogical knowledge** changes when using digital tools

"[W]hat surprised me the most... was how much longer it takes to give... good and effective feedback to students... sometimes printing the student's work, still giving feedback handwritten, we can circle where a student went wrong in their math... And **online, there are tools like Kami** that work to do those sorts of things. But, it's **time-consuming** when we have so many students [...] I hate to admit that some of us have done that on occasion."

- Meredith, Rural district



Access also means socio-technical practices



access to digital tools and devices is also about access to socio-technical practices

"For the kids themselves, it was more just kind of community skills, like knowing you have to mute your mic... when other kids are talking. You have to wait, whereas in a classroom, since we can all hear each other a little... the way that we have a conversation is more fluid when you're not a computer."

- Ryan, Rural district



And, even more complexity

All of these elements are braided together with district and school choices about **SYSTEMS**:



students' **experiences** with academic digital content require **teacher innovation**



teachers' **pedagogical knowledge** changes when using digital tools



access to digital tools and devices is also about access to **socio-technical practices**



And, even more complexity

All of these elements are braided together with district and school choices about **SYSTEMS**:

"I just feel like people... aren't accessing the things that they need to access. And that's because they're in survival mode.

And we can't ever get out of survival mode because... we haven't had anything consistent [from the district] for the whole year. And we're still not going to. So there's, like, there's just no way to get to a place where people would feel like they had enough mental space to learn things."

- Molly, small city district

"Teaching with technology" is complicated

In short, what COVID-19 has shown us is that the common assumptions we shared earlier are actually **MYTHS** in practice:

- **MYTHS of access** e.g. "Students will learn to use digital technologies once they have the right hardware."
- MYTHS of digital culture and digital natives e.g. "Students know how to use Tiktok, so academic content in digital technology form will be no problem."
- MYTHS of pedagogy e.g. "Good teachers know how to teach well in any context."

When the systems change, everything changes

"Some teachers are struggling, and they'll be just posting a PDF of a worksheet that they've always used or whatever. And so, if you're taking a traditional learning model that was pen and paper and just trying to overlay it into the digital community, it's more of a struggle for students."

- Tabitha, large city district

Outcomes: What we've done

With our initial CoRE COVID-19 grant, we have:

- Written a survey and focus group protocol
- Collected pilot data and built relationships with school districts
- Built methodological expertise as an interdisciplinary team
- Conducted initial analysis, submitted conference proposals
- Applied for future funding:
 - Spencer Foundation
 - o William T. Grant
 - Russell Sage Foundation
 - National Council of Teachers of English
 - CARES funding
 - o National Endowment for the Humanities

Outcomes: What's next

We would like to:

- Complete analysis of pilot data
- Develop professional learning/practitioner inquiry focused on digital literacies in our partner districts, as well as recommendations for state educational policy
- Host a team colloquium to present this work to other interested teachers, school districts, and UNH faculty
- Collaboratively write at least three articles:
 - These findings (Research in the Teaching of English)
 - Collaborative methods (Qualitative Inquiry)
 - Literature review about the complexities of digital literacies (Educational Researcher)



Survey Findings: Sentiments about digital literacies

"[W]hat surprised me the most [...] [was how much longer it takes to give... what I feel is good and effective feedback to students...[M]aybe I shouldn't admit this in this setting, [but I] have been given advice from other teachers that sometimes printing the student's work, still giving feedback handwritten, we can circle where a student went wrong in their math... And online, there are tools like Kami that work to do those sorts of things. But, it's a little time-consuming when we have so many students [...] Again, I hate to admit that some of us have done that on occasion because otherwise, the students are waiting a week to get work back" (Meredith, Alton FG).

Access isn't just tech, but socio-technical practices

POTENTIAL QUOTES (if we use more than one):

for the kids themselves, it was more just kind of community skills, like knowing you have to mute your mic... when other kids are talking. You have to wait, whereas in a classroom, since we can all hear each other a little... the way that we have a conversation is more fluid when you're not a computer (Alton)

But she was embarrassed to come to, to the class and not be able to interact and have the teachers think that she wasn't turning her camera on, and she wasn't interacting because she didn't want to. She's really smart and she literally couldn't, cuz there's too many [younger siblings at her house]... and they love her, so they're all over her. (Manchester)

Experiencing content digitally requires innovation

POTENTIAL QUOTES:

This [Google Classroom] is what I can do. This is where we're going. This is what I know kids can do. And so we did a lot with Google because I knew that at least learners in 3, 4, and 5 had a lot of experience with that, just from what they were doing in... in computer class. (Portsmouth)

Math example from Alton

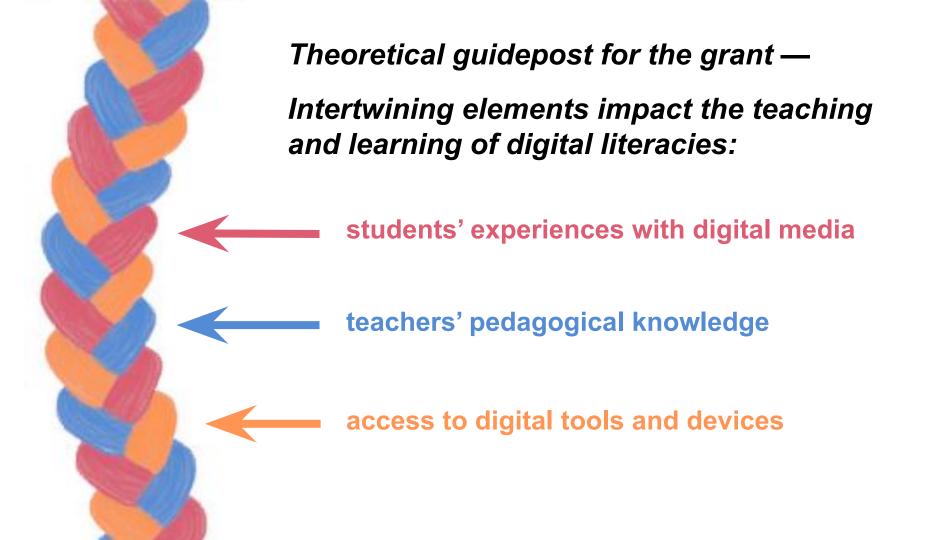
Language example from the Portsmouth ELL teacher who built a portal

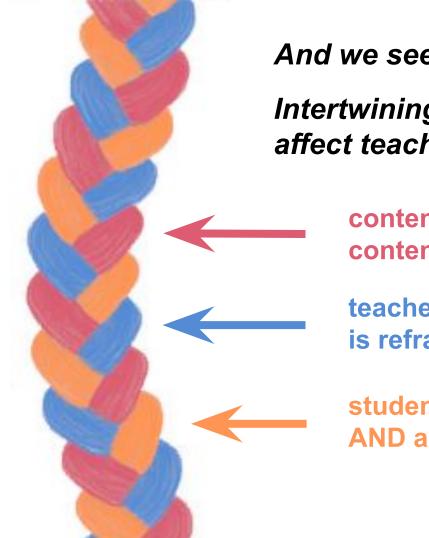
Using technological tools changes pedagogies

POTENTIAL QUOTES: This one girl put music to her [presentation], and it was just incredible. And then all the kids wanted to do it just like her... So she taught me and then the two of us taught the class. We would break the class up and help each other. But it was a complicated order. (Manchester)

Some teachers are struggling, and they'll be just posting like a PDF of a worksheet that they've always used or whatever. And so, if you're taking a traditional learning model that was pen and paper and just trying to overlay it into the digital community. It's more of a struggle for, for students. (Manchester)

Collab editing example from Alton





And we see this play out in the findings—
Intertwining aspects of digital literacies
affect teaching and learning:

content/academics... how Ss experience content depends on the tools/practices??

teachers' pedagogical knowledge is reframed by/with tech tools

students need access to digital tools AND access to digital practices

Diglits are social, academic, AND pedagogical practices

Social/technical systems: turning in work, interacting on Zoom, muting/unmuting

- for the kids themselves, it was more just kind of community skills, like knowing you have to mute your mic... when other kids are talking and then, you can't just say what's on your mind. You have to wait, whereas in a classroom, since we can all hear each other a little, you know, just the... the optics of it, in the way that we have a conversation is more fluid when you're not a computer (Alton)
- But she was embarrassed to come to, to the class and not be able to interact and have the teachers think that she wasn't turning her camera on, and she wasn't interacting because she didn't want to. She's really smart and she literally couldn't, cuz there's too many [younger siblings at her house]... and they love her, so they're all over her. (Manchester)

Content/academic practices: How to get to the content

- This [Google Classroom] is what I can do. This is where we're going. This is what I know kids can do. And so we did a lot with Google because I knew that at least learners in 3, 4, and 5 had a lot of experience with that, just from what they were doing in... in computer class. (Portsmouth)
- Math example from Alton
- Language example from Portsmouth

Pedagogical practices: How to teach WITH technology

- This one girl put music to her [presentation], and it was just incredible. And then all the kids wanted to do it just like her. But I couldn't explain to them how to do it because I didn't know how. So she taught me and then the two of us taught the class. We would break the class up and help each other. But it was a complicated order. (Manchester)
- ...[T]he teachers that have shifted to a completely digital platform the lessons, the teaching, the whole student group together the, the kiddos, kind of just now have morphed into those kinds of students and they're not struggling. Some teachers are struggling, and they'll be just posting like a PDF of a worksheet that they've always used or whatever. And so, if you're taking a traditional learning model that was pen and paper and just trying to overlay it into the digital community. It's more of a struggle for, for students. (Manchester)
- Collab editing example from Alton

So the braid part... these things interact in really complex ways

Math example from Alton

Systems impact/sit above everything else

(How do we define systems?) What factors create a system?

School technology policy; school LMS choices; teacher's perceived understandings of what the school/society says they have to do (Alton quote @math); School choices about remote learning format (Alton about trying to meet with students in spring);

Pedagogy constrained by systems; systems constrained by pedagogy

Operating Parameters?

FG participants were talking about their schools/districts: The choices that a school make have a profound impact on students' and teachers' learning experiences. It's not necessarily bad that these choices/operating parameters were different, but we need to interrogate them for equity reasons.

Thus we need PL so that Ts can do this work within their own schools

Here's the % of work that required computers pre-covid and during covid (december).

Pre-covid vs/ cover data — use of computers and how that changed

Question phrasing: Prior to the Spring 2020 pivot to COVID19 remote learning, on average, what percentage of your class's work required your students to use computers or mobile devices?

Quant - we knew there'd be more people using technology. Yup - that happened

Qual - but this is super-complicated. Here's how

I.e. first-years are not going to join UNH super-able to navigate online learning just because of COVID - there are still variations throughout the state

increase in use is not equal to increase in understanding/facility i want to add equity to that too ^

What are teachers doing / thinking is helpful?

Practices that people said were beneficial:

Building community online - (Manchester)

- Bitmoji classrooms
- Student art galleries

Instant feedback / collab editing with students via Google Docs (look to Alton FG)

Assistive technologies (assistive for whole class) (look to Portsmouth FG)

Context

- NH ICT Standards
- We live in a world where people need to be literate consumers and creators of content across multiple
- most classrooms remained largely unchanged until the COVID-19 pandemic closed school buildings, requiring teachers to (re)imagine their practices

critical skills for the 21st century and important elements of equitable K12 and college (K16) curricula. Although the importance of digital literacies is well-documented, most classrooms remained largely unchanged until the COVID-19 pandemic closed school buildings.

Our pilot research examining teacher's digital literacy perspectives indicated that although the pivot to remote learning inspired some great innovation in digital teaching practices, it also revealed great disparities in teachers' pedagogical understanding of digital literacies resulting in inequities for learners.

This proposed project seeks to ameliorate inequities in student learning experiences through teacher preparation. The project will provide two cohorts of teachers with ongoing support from professional learning coaches as the teachers participate in summer institutes, (re)imagine their curricula, and develop, implement, and disseminate practitioner inquiry projects focused on digital literacies. Analysis of interviews with teachers and students, teachers' lesson plans, and students' classroom artifacts will identify further actions to improve teacher digital literacies preparation, identify classroom needs to create equitable learning environments, and develop professional development models that can be implemented widely.

Ask Maria bc maybe we don't want to say this now...

"Google Classroom" the most common bi-gram.

Teachers didn't appreciate system-level pressure to use/learn certain tech because new tech often means new pedagogy

- Math teacher whose grading time multiplied (ba-dum-dum-ching) (Alton)
- One district moved all teachers to Schoology when some had been using google

(What is UNH doing right now? Forcing districts into canvas. Argh.)

C-WRET at UNH: Our Mission and Vision

The Collaborative for Writing Research, Engagement, and Teaching (C-WRET) is a multidisciplinary research collaborative that:

- Focuses on developing student writers and readers at all levels (K-16)
- Connects researchers, teachers, youth, and communities through research-practice partnerships and sustained outreach
- Builds upon UNH's traditions of research and innovation in writing teaching, literacy development, teacher expertise, and writing across disciplines and professions
- Identifies implications for policy and curricula

C-WRET at UNH: Our Mission and Vision

Vision Statement: Our work takes place within a university and community culture that values teachers and researchers as co-learners in the research and engagement process and where the research enterprise strengthens instruction and teacher knowledge in K-12 schools and the University.

C-WRET at UNH: Our Mission and Vision cola.unh.edu/nhliteracy/c-wret

The Collaborative for Writing Research, Engagement, and Teaching (C-WRET) is a multidisciplinary research collaborative at the University of New Hampshire that is focused on the development of student writers and readers at all levels. We connect researchers, teachers, youth, and communities through research-practice partnerships, scholarship, innovative teacher engagement models, and sustained outreach to communities, youth, and schools. We build upon the University's tradition of research and innovation in the teaching of writing and literacy development in grades K-16, identifying implications for policy and curricula, writing across a wide range of disciplines and professions, and fostering teacher expertise.

Vision: Our work takes place within a university and community culture that values teachers and researchers as co-learners in the research and engagement process and where the research enterprise strengthens instruction and teacher knowledge in K-12 schools and the University.