Adolescent Digital Writing: Considerations for the Classroom and Beyond

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Abstract

The pandemic led many schools to invest in technology that remains in classrooms today. The abrupt changes did not leave much time for professional development or planning time on how to use these digital tools to support literacy development effectively. Educators continue to grapple with how to use this technology to support language arts, specifically writing. Literacy teachers who strive to integrate this technology into their instruction must consider digital inequalities, the digital literacy skills students already bring with them, and how to differentiate digital literacy instruction for those with varying levels of competence. This literature review explores the research into digital student writing, online composition, digital inequalities, problematic characterizations of adolescent digital writers and writing, and the power of teacher perceptions. Implications for practice and future research are also discussed.

Keywords: digital writing, digital literacy, digital inequalities, adolescent writing

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Cell phones and tablets are ubiquitous in today's society. Following the instructional changes due to the pandemic, technology was incorporated more and more into the classroom, with 96% of all public schools providing devices to students (NCES, 2021). Teachers had to pivot quickly in 2020 and may still be looking for the best ways to use digital technologies. Specifically, language arts teachers may wonder how they can use technology to enhance student writing. Many students do not know a world without digital communication and are successful "at participating in several networked places simultaneously" (Alvermann & Sanders, 2019, p. 1). Their classrooms do not always reflect this lived experience. Yet, "the responsibility for educating students on relevant and real-life issues falls upon teachers" (Sanders, 2016, p. 77). This includes instruction in the new literacies and digital writing. Many teachers may lament student academic writing, but students regularly write as part of their digital lives using their phones, tablets, and laptops, as evidenced by a survey of teens that reports 85% of respondents using YouTube, 72% Instagram, and 69% Snapchat (Dienlin & Johannes, 2020, p. 135).

While these students are considered digital natives, born after the advent of new technologies and therefore assumed proficient, the term can also be problematic, and may mask digital inequalities amongst students, obscuring the need for teachers to differentiate and scaffold digital assignments. To incorporate more digital composition, educators must also take into account digital inequities that continue to plague society.

The following literature review addresses the following questions: How can language arts teachers leverage adolescent digital writing? What should educators consider when implementing digital composition and creation?

Conceptual Lens

Research about students' digital writing lives is a relatively new inquiry. Accordingly, it is important to explore the topic with new and multiple perspectives. As Coiro et al. (2008) assert:

> New literacies of the Internet are sufficiently distinctive that they require their own theoretical framework – one that is grounded in the social practices of the new literacies of the Internet and other ICT [information and computer technologies] and the contexts and conditions under which these social practices occur, develop, and evolve in order to adequately understand them (p. 12).

This review employs discourse and sociocultural theories since both theories complement each other in their approach to writing instruction and digital literacy.

Discourse Theory

Horner (2014) described discourse theory as a "problem-driven approach to research" (p. 2) that allows researchers to recognize social practices as "both the product of and capable of challenging political discourses" (p. 4). Texts then are created within those social practices. The lifeworlds of adolescent creators are part of this larger social practice. Turner et al. (2014) identify how digitalk, students' text, and online writing, situated the teen participants as a Discourse community. Gee (2015) defines Discourses as "*ways of recognising and getting recognised"* as certain sorts of *who's* doing certain sorts of *whats* (p. 173). It is more than just what people say. It's what they do and how they act and how they fit in. When teens use

digitalk, they are part of a community of practice and are participating in a Discourse community.

Socio-cultural Theory

The nature of discourse theory binds literacies with social, institutional, and cultural relationships. This approach has strong roots in the work of Vygotsky (1978) and his focus on social context. He writes that "human learning presupposes a specific social nature and a process by which children grow" (p. 88). Gee (2015) asserts that it is "impossible to separate out from the text-mediated social practices the 'bits' concerned with reading and writing" (p. 13). This is also in line with Street's (1984) ideological definitions of literacy. Meaning is dependent on social institutions, not separate from politics and ideology. As a social structure, literacy practices cannot be isolated. Based on the work of Vygotsky (1978), this is especially true with the use of tools, in this case mobile phones, tablets, or laptops.

This conceptual framework offers a complex lens for a complex issue. It allows a holistic view of digitalk that takes into account the Discourse communities of students and the sociocultural nature of literacy and Discourse communities.

Terms

Digital Writing

The digital writing of adolescents has not gone unnoticed. Studies that explore this writing – digital writing, or "digitalk," labeled by Turner et al. (2014) – reveal that students compose with audience in mind, make deliberate writing decisions, have identifiable writing patterns, and learn from each other in a community of practice. Additionally, adolescent digital writers are responsive to audience and skilled at what researchers term digital curation (using previously published media to create something). Students are writing, but very often this writing is seen as a distraction from the academic tasks in which they should be engaged

(Turner et al., 2014; Vaughan, 2019; Warner, 2016).

Digital Inequality and Digital Literacy

Students' digital skills are not the only consideration. Educators must consider digital inequality, which "emphasizes a spectrum of inequality across segments of the population…along several dimensions of technology access and use" (Hargittai, 2003, p. 822). For this literature review, I use the term digital inequality to frame the topic rather than the buzzword "digital divide."

The term literacy can also be a point of contention. Literacy defined as just reading and writing is simplistic and does not take into account the new literacies that spread daily on the Internet which "permits immediate, global, and continuous change to literacy technologies themselves" (Coiro et al., 2008, pp. 4-5). Seeing literacy as only pencil/paper reading and writing can have a negative effect on the students who need the most support. For example, if all state assessments are pencil/paper, this may lead to greater focus on a traditional definition of literacy and not the more encompassing definition.

How educators define literacy is not neutral, may have negative effects on students already at risk, and continues to replicate current inequalities. As sociolinguistics researcher Gee (2015) claims, "Language and literacies, including digital literacy, are still too often today used to sustain inequalities and to create acquiescence to an unjust status quo" (p. 6), thus replicating the "social hierarchy" (p. 38). Decisions made at the district, campus, and classroom level can perpetuate inequalities or aid in their decline.

The Problematic Concept of the Digital Native

Prensky (2001) is usually given credit for the concept of the digital native that is now a pervasive idea. He may have also coined the term digital wisdom instead, but the idea

remains and has problematic implications (boyd, 2014). The concept of the digital native assumes that anyone born after 1980 has the knowledge and skills needed to fully engage with ICTs, resulting in different learning preferences due to this knowledge and skill (Bennett et al., 2008; boyd, 2014). But as Bennett et al. (2008) posit, there is no evidence of this. Further, as technology and social media scholar boyd (2014) asserts, the concept of the digital native is dangerous because it lets educators and society at-large off the hook for supporting students' use of digital literacies.

Digital Writing and Inequality Research

The digital lives of teens are growing, not going away. In a Pew survey, researchers found that 92% of teens went online daily (Joshi et al., 2019). The demand for academic writing proficiency is not going away either, as evidenced by expanded writing assessments in states like Texas (TEA, 2020). Starting in 2023, Texas began assessing writing each year it also assesses reading. The need to be able to communicate on a multitude of platforms in a multitude of ways is becoming even more critical. When the New London Group (Cazden et al., 1996) wrote about multiliteracies, they broadened the definition of literacy to "include a multiplicity of discourses" (p. 61). Teachers will need to find ways to meet students where they are and harness the audience and voice awareness that students are already developing.

The Nature of Digitalk

In the past decade, researchers have examined the personal writing students do on a daily basis. Turner (2011) defines "digitalk" as the "complex and fascinating combination of written and conversational languages that adolescents use in digital settings" (p. 264). This includes texting, instant messages, and social media. This type of composition often breaks the rules of standard written English (SWE) but allows adolescents to be part of a community of practice where they negotiate and adapt conventions to the audience. The deviations from SWE are often purposeful

and used to create voice or are done in order to communicate more efficiently. The findings of Warner (2016) support the idea that youth digital composers create their own practices and conventions, as well as relying heavily on digital curation, which involves "selecting, compiling, and displaying existing digital content rather than creating from the 'ground up'" (p. 184).

For example, Turner et al. (2014) find that students compose with their specific audience in mind. Feedback from the audience plays an important role (Warner, 2016). In fact, the attention paid to audience is one of the defining characteristics of "digitalk" and adolescent online writing. Turner et al. (2014) suggest that rather than viewing the writing done in out-of-school Discourse communities as deficient, teachers and parents should see it as a form of code-switching, or alternating between two languages or two language versions, something to be built upon in the writing classroom.

Online Composition

Literacies include several online tools for composing both text and multimodal creations. Online tools are being used in school for writing, specifically collaborative composition. Research focused on the use of online tools (e.g., Google Docs) has been mixed. Kessler et al. (2012), Suwantarathip and Wichadee (2014), and Krishnan et al. (2018) find beneficial results from allowing students to collaborate on writing using Google Docs, both in meaning making and student perception, while Woodrich and Fan (2017) found face-to-face interaction still garners more writing growth.

Additional research focuses on the development of multimodal texts. Findings support the need to expand the "available sources of meaning making" while also looking at the importance of the actual process of creation (Ehret et al., 2016; Miller, 2013, p. 452). Multimodal texts allow a wider method of expression and creation.

Instructional Bridges

Lammer and Van Alstyne (2018) discuss potential next steps for taking at least some digital student writing into the classroom. They found that incorporating networked publics (online writing spaces) created privacy issues, necessitated time and effort to build an audience, and allowed student examination of their online writing. Attempting to create an authentic online writing space in the classroom does come with challenges but is important to give "youths opportunities to practice writing skills in areas they want to develop" (Vaughan, 2019, p. 533). These practices allow students who may struggle in class to develop a creative voice.

Inequities in Digital Literacy

Not all students have the same exposure, access, or experience to digital writing. For example, a 2018 report shows that while 72% of 8th graders use technology for research, only 30% use it for presentations, and only 13% use it for making video or audio productions (NCES, 2019). Broadly speaking, socioeconomic status is the key factor in access and use of digital technology. Since her earlier work, sociology researcher Hargittai (2003) outlined that despite increases in digital access and use overall, gaps still remain. The socioeconomically disadvantaged continue to fall behind the more advantaged, showing that digital equality continues to be a moving target and that current inequalities continue to be replicated. She noted that access includes quality of equipment, freedom to use it when one wants to, support from other people, and experience. These conclusions are supported by her investigation of the internet skills of first-year college students (Hargittai, 2010). Despite controlling for access, socioeconomic status is still correlated with how students use the internet. This research also counters the myth of the digital native.

Inequalities for Children and Youth

More current research shows that these inequalities remain, even for those labeled as digital natives. Collin et al. (2016) conclude that socioeconomic level is correlated to students'

digital use. The researchers surveyed elementary and high school students in Quebec, Canada. They found that the more economically disadvantaged students used the technology less than their more advantaged peers. Not all students have the same access, usage, or experience when it comes to digital technology.

In their exploration of home computer use by primary school children, Talaee and Noroozi (2019) also argue that socioeconomics affects what they see as the final layer of the digital divide discussion: home computer opportunities. For people to reach the highest level in their framework, they must have physical access to a home computer, opportunity, time and space to use it, the necessary skills, and a positive attitude toward its use. These elements are affected by socioeconomic status.

Along a similar line, Eynon and Geniets (2016) interviewed 20 young people labeled as digitally excluded. Their interviews illustrate that lack of physical access, social constraints, and institutional blocks (where the students could find public access) all lead to poor quality of access. Lack of networks of support compounds the lack of access, with some teachers making assumptions about existing skills, leading to a lack of instructional support. These factors may also compound students' low motivation to use digital technology, leading the researchers to conclude that young people need additional support.

Improving access is not enough to build digital equality. Wilkin et al. (2017) studied 30 disadvantaged youth who were given a laptop and stable internet. They found that access is not enough to build the skills the students needed. Though the students had access, they still used the technology in limited ways and even put themselves in vulnerable positions online. They also lacked school support.

This echoes the call of Jenkins et al. (2006) for educators to work together to create pedagogical interventions to close what they call the participation gap, the transparency problem, and

the ethics challenge. The participation gap is the unequal access to opportunities, experiences, skills, and knowledge. The transparency problems are challenges adolescents face when interacting with media and how it shapes their perceptions. The ethics challenge deals with how school and the community might prepare students for their roles as media makers and community participants.

The need for these types of instructional shifts is evident in the research of Martin and Lambert (2015). In their summer digital writing camp with middle school students, they identified three levels of digital learners: digital drivers, digital navigators, and digital passengers. The drivers use technology independently and have both high digital text consumption and creation. Navigators also use technology independently but have only moderate consumption and limited creation. Passengers have dependent technology use, limited consumption, and minimal creation. The researchers contend that this calls for differentiated instruction in digital writing and technology.

Teacher Perceptions

Teachers' perceptions of digital literacy also play a role in how digital literacy is approached in K-12 educational settings and could exacerbate digital inequalities. For example, Rafalow (2021) investigated how teachers at three different schools approached digital technologies. He notes that teachers at each school talked about the use of technology in a different way. At the school that served mostly wealthy White students, the teachers saw the work as "essential," but at the mostly middle-class school that served mostly Asian American students, they saw the same thing as a "threat," and at the school that served mostly working-class Latinx students, the teachers saw digital technology education as "irrelevant" (p. 28). These teacher perceptions have ramifications for the students whom they teach and what level of instruction they receive in digital technologies and literacies. These

attitudes may start when teachers are still in their pre-service training.

Jung et al. (2020) found that pre-service teachers paid little attention to sociocultural aspects when constructing technology instruction, suggesting they had little awareness of digital inequality issues. Jung et al. (2020) also hypothesized that "field experience in classrooms with ineffective technology use can be the greatest barrier to future technology integration" (p. 1006). Additionally, Christ et al. (2019) found that the use of technology challenged pre-service teachers' planning and instructional implementation in terms of time management and teaching methods. The pre-service teachers also had trouble identifying appropriate texts for these lessons. On the other hand, when pre-service teachers were flexible, modeled the use of the technology, and provided models of digital artifacts, they found success. Thus, there is an opportunity to affect teacher perceptions and use of technology while pre-service teachers are in training and field experiences.

Implications

Practice

This research has implications for both classroom instruction and teacher education. Teachers can harness students' awareness of the facets of writing they gain from their experience as digital writers by incorporating digital writing in their classrooms. For example, they can use platforms such as Padlet for students to share writing for different audiences. Educators can also use online platforms for students to write authentic work, such as Yelp reviews that have an authentic purpose and audience. They can even create their own podcasts about content they are learning in class and connect with their actual audience to receive feedback.

Professionals who provide continuing education for teachers also need to support teachers in their work to connect to the digital writing of adolescents. For example, Hobbs and Coiro (2019) recommend digital literacy professional

development prioritize teacher reflection, inquiry and collaborative learning, and the "exploration of how educators and learners (not machines) personalize learning" (p. 408). The last element speaks to the current reliance on computer programs to design the learning rather than the teacher. Teacher learning could focus on how teachers utilize technology as a tool to support differentiation.

Future Research

There remain many unanswered questions about what digital best practice looks like. Future research could investigate teacher perceptions and knowledge-base as well as continue investigating how students' out-of-school writing evolves and grows. Teachers would likely appreciate research into instructional strategies for digital writing and what works best in classrooms. This could include research into how artificial intelligence affects digital writing and digital writing instruction. Action research may be the timeliest way to research these strategies, but larger research could also continue to address these questions.

Conclusion

We live in a world where technology is evolving every day. Educators cannot ignore this, nor can they ignore the skills that students will need for the future. Students come with a wealth of knowledge, and for many of them, that means a wealth of digital literacy knowledge, but educators cannot expect all students to come with the same knowledge and expertise. Digital writing must be approached with the same appreciation for differentiation as any other part of the content, with strengths leveraged and needs addressed.

AUTHOR BIOGRAPHY

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