Allred, J., Hochstetler, S., & Goering, C. (2020). "I love this insight, Mary Kate!": Social annotation across two ELA methods classes. *Contemporary Issues in Technology and Teacher Education*, 20(2),230-241.

"I Love This Insight, Mary Kate!": Social Annotation Across Two ELA Methods Classes

<u>Johnny Allred</u> University of Arkansas

<u>Sarah Hochstetler</u> Illinois State University

<u>Christian Goering</u> University of Arkansas

This paper foregrounds sociocultural learning theory and dialogic pedagogy to describe how instructors at two universities, one in the Midwest and one in the mid-South, used a web-based social annotation tool to spark conversations among English language arts methods students who crossed geographic boundaries and invited all students to share their voices and respond thoughtfully and respectfully to others' ideas. Outcomes of this exploratory exercise include the following: methods students' inquiries into the potential for social annotation to expand learning beyond traditional classroom walls, instructors' reflections on student interactions with peers in virtual spaces, and a call for educators to be intentional with the digital tools they choose to employ.

Turn on the television to any channel or open the comment box to any post online, and before long for the vitriol and incivility will render one ready to find a hole and crawl into it. English language arts (ELA) teacher educators are responsible to provide preservice teachers (PSTs) with practices, skills, and tools enabling them to help their students face complex, social online worlds and engage within those worlds in profound ways.

ELA teacher educators have the opportunity and obligation to engage PSTs in the kind of practices desired in K-12 classrooms and beyond, practices that are both practically oriented and theoretically sound enough to provoke critical thinking and thoughtful, informed engagement. Preservice teachers can have these types of experiences by thinking and talking with people whose opinions differ from their own by consistently making their thoughts visible to others and by engaging in collegial conversations that lead to negotiated understandings and new ideas.

Lynch et al. (2019) stressed the importance of ELA educators' focusing on collaborative, critical thinking skills in social spaces as the driving force behind potential implementation of digital technology into instruction. Literacies are the focus, not the technology tool itself.

Preservice teachers can practice utilizing 21st-century technologies that promote dialogue and social construction of knowledge so they can know how to cultivate those skills in their young students. Alvermann, McGrail, Young, Damico, and Zucker (2019) echoed this emphasis on the development of literacy skills using digital technology and warned against the tendency to equate new literacies with technology.

Sociocultural learning theory posits that learning is situated in contexts related to cultural backgrounds, political hegemonies, and personal worldviews (Lave & Wenger, 1991; Vygotsky, 1978). Conversations in this vein exhibit a negotiation of meaning — a combination of giving and taking, extending, redirecting, dismissing, reinterpreting, modifying, and conforming (Wenger, 1998).

In a similar vein, dialogic learning is a process where students respond thoughtfully to what others say. In these conversations, learners regularly (a) raise questions and respond to them, (b) consider multiple perspectives, (c) push against existing thinking, and (d) recognize that knowledge is building and evolving instead of remaining static (Bakhtin, 1981; Fecho & Botzakis, 2007).

With those ideas in mind, this paper describes how we created a discussion-based learning experience with three different sections of ELA methods across two US states using social annotation of shared readings. Specifically, we used Hypothesis, an open web annotation platform, as a tool for uniting two otherwise disconnected learning communities for the broad purposes of open discussion of effective ELA instruction. In exploring the quality of talk occurring among these PSTs, we relied on student annotations and student reflections on the process.

Literature Review

Sociocultural Theory and Dialogic Pedagogy

According to sociocultural theory, learning is a social process, and cognition originates in social situations where learners are interacting with each other using culturally created tools (Lave & Wenger, 1991; Vygotsky, 1978). Additionally, learning is always attached to particular contexts (such as cultural backgrounds, social settings, hegemonic powers, dominant political ideas, or students' worldviews), and students use symbols and forms of reasoning provided by these contexts (Gredler, 2009). As such, mental activity should be examined through a combination of social interactions and the environments in which learning takes place (Kumpulainen & Wray, 2003).

Sociocultural theory identifies social and interactional activity as crucial for a student's learning, because such activities result in the generation of new ways of thinking (Mercer & Howe, 2012). Students are active creators and participants in a sociocultural classroom, suggesting that teachers should embrace and applaud students' initial efforts and tentative steps toward greater sophistication (Smagorinsky, 2013).

As activities or tasks become more complex, speech plays an increasingly important role (Vygotsky, 1978). Sociocultural theory emphasizes the importance of the *process* of learning, the ongoing interaction and meaning-making among students (Kumpulainen & Wray, 2003). Smagorinsky (2013) stated that a Vygotskian perspective emphasizes growth and meaning-making over performance on summative tests.

Classrooms based on sociocultural principles emphasize student-centered learning, where all voices are encouraged to participate in discussions and learning activities. When conducted with a group of diverse learners and thinkers, these activities often lead to conceptual conflict and collaborative learning (Mercer & Howe, 2012), which necessitates a negotiation of meaning — a combination of giving and taking, extending, redirecting, dismissing, reinterpreting, modifying, and conforming (Wenger, 1998).

As students are given space to process their thoughts through conversation, they make meaning. If classroom talk is always dominated by teachers or by closed-ended questions, students will be searching for a right answer — or simply trying to guess what is in the teacher's brain. Activities based on sociocultural theory, instead, seek to broaden thinking and allow for reasoned subjectivity (Mercer & Howe, 2012).

Classroom discussions and activities that allow exploration of thought can expand thinking and result in coconstruction of knowledge (Bakhtin, 1981). Dialogic learning, where students make comments that build upon previous comments, provides opportunities for new ways of thinking. Fecho and Botzakis (2007) suggested that dialogic classrooms are places where learners regularly (a) raise questions and respond to them, (b) embrace the importance of context, (c) consider multiple perspectives, (d) push against existing hierarchies, and (e) recognize that knowledge is building and evolving instead of being static.

When this type of discussion-based thinking results in meaningful text, it can be another tool to generate new thinking in others (Smagorinsky, 2013). Put another way, students learn and negotiate new understandings by seeing others' thinking made visible (Collins, Brown, & Holum, 1991).

Social Annotation

A widespread tool for deeper reading and learning, annotations in the margins of printed texts are products of the interactions between text and reader (Jackson, 2001). These marks, highlights, and comments upon the written page can help to clarify or evaluate the text or connect the learning to the reader's previous experiences and understandings (Bazerman, 2010). Research has shown that annotating has helped students become more critical readers and consumers of information (Adler & Van Doren, 1972).

With advances in technology and its affordances for connected reading, the annotation process has become more social and digital. On a web browser, readers can share their annotations and respond to others' within the margins of the text. When annotations are shared, considered, and responded to, students are better able to evaluate texts critically and build upon others' ideas (Beach, 2012).

Moving this conversation online can also be a more comfortable venue for students who are shy, unsure, or who otherwise struggle to participate regularly in face-to-face conversations (Larson, 2009). To promote this kind of thinking in K-12 students, PSTs could benefit from seeing how technology — specifically social annotation technology — promotes thinking and writing that is dialogic and that shows inclusion of diverse thoughts and cultural perspectives (Kalir & Perez, 2019).

Within higher education and academia, social annotation has been used to promote multimodal representations of learning with graduate students (Hollett & Kalir, 2017), to foster conversation about educational equity among professional educators (Kalir & Perez, 2019), and to facilitate conversations among authors and readers of academic texts (Hicks, 2018; Kalir & Dean, 2018). In K-12 settings, social annotation has been used with middle school students to promote collaborative construction of knowledge (Beach, 2012; Castek & Beach, 2013) and to provide multiple viewpoints of texts that deepen student understanding (Turner, 2017).

Framed in consideration of these ideas, our exploration viewed students' learning from texts through a sociocultural lens, considering the beliefs, experiences, and ideals that PSTs brought to the digital annotation conversations in which they participated. We also examined the nature of student dialogue when using a social annotation tool to learn from texts, identifying the types of comments PSTs provided in response to ideas from texts. In essence, our experience explored the interplay of sociocultural theories of learning, dialogic student interactions, and social annotation as a mediational tool.

Because digital tools for social annotation provide students the ability to see others' thoughts, to consider multiple viewpoints, and to engage in text-based conversations in traditional written and multimodal ways, we sought to implement the process with our preservice secondary ELA teachers to observe how they used it with course readings and to reflect with them on the potential value it has in their future classrooms.

Our Experience

Context

Our experience began early in the fall semester of 2017, set within three methods courses: one at University A, in a course focused on writing instruction for graduate preservice secondary teachers, and in two sections of writing methods for undergraduate preservice secondary teachers at University B. Across these courses 35 students and five instructors created an interactive learning opportunity centered on social annotation through shared reading assignments.

Specifically, the instructors — one faculty member and three graduate students at University A, and one faculty member at University B — chose Hypothesis as a tool

for uniting two otherwise disconnected learning communities for the broad purposes of interacting with text through social annotation. Hypothesis allows individuals to highlight text and make comments in the margins of any webpage (including PDFs, blogs, public news articles, etc.). Another person can then view those annotations and reply directly within the stream of the text. These annotations can either be public, where anybody can access the page and view annotations, or private, where teachers create a password-protected class group for student conversations. Through written reflection and class discussion, we encouraged our students to consider the value of such tools and spaces for preservice and in-service teachers, as well as secondary students.

Practice With Social Annotation

Our collective interaction with Hypothesis unfolded in stages. Instructors and students at each institution engaged in practice annotation activities in their respective courses prior to the primary shared exercise.

University A. The introduction to social annotation at University A began with a writing prompt that asked students to describe their experience with annotation as teacher or student, including perceived benefits from or challenges with traditional annotation. After students shared their writing and experiences with each other, the instructor showed the Hypothesis platform to the class, guiding them through the process of creating an account, enabling the digital annotation layer on their web browser, and annotating a sample online article. This initial exposure to Hypothesis was helpful in ironing out technical issues and questions about how to enable the annotation tool, highlight text, write annotations, and respond to others' comments.

Then, the group spent some time reading and digitally annotating, "Back to School with Annotation: 10 Wavs to Annotate with Students" (https://web.hypothes.is/blog/back-to-school-with-annotation-10-ways-toannotate-with-students), which details specific ideas for using social annotation in classroom settings, thereby shifting the task from initial training with the tool to course-related learning mediated by the tool. After reading and annotating online. instructors and students shared with each other what they learned from the article and their discussions in the margins. At the conclusion of this introductory experience, students were prompted to write again, this time describing their takeaway from the social annotation practice and how they might apply it in their teaching.

University B. The process at University B began with all participants reading and annotating hard copies of the same text and using those annotations to ground discussion within the familiar discourse communities of the individual sections of writing methods. Each class started the annotation experience by first talking about the process of annotation. We asked each other questions like the following: What are some ways of annotating? How do we know what to annotate and why? What makes for successful annotation? How do individuals differ in their annotation processes?

Next, the instructor and students practiced annotation through the traditional pen and paper mode in a shared text. Then, the group transitioned into the Hypothesis platform, adding their written annotations into the shared online text to build comfort and fluency in the new mode. Dialogue between students naturally emerged in Hypothesis, as they were encouraged to respond to each other through the various functions in the platform. Finally, students and the instructor discussed the text itself as well as the experience of using Hypothesis for both annotation and online interaction between peers.

Texts for early Hypothesis exercises at University B included readings on issues both related and unrelated to course topics: the goal was building on the traditional model of annotation to grow confidence within an interface that was likely new for many students. The instructor chose to use a low-stakes reading to enter into the larger social annotation experience. One rationale for that decision was the assumption that students would feel less concerned about the quality or correctness of their responses to a text if it was not directly related to course content. Further, the instructor implemented a scaffolded approach to annotation, much like the gradual release of responsibility model, to coach students through one process of annotation in both modes.

Collaboration

University B students joined the University A cohort asynchronously in a shared content-related text in Hypothesis. Specifically, all students and instructors did a close reading of and responded to Kristen Hawley Turner's *Voices from the Middle* article, "Sharing Reading: Moving Beyond Tools to Create a Community of Readers." Instructors selected this particular piece as an entry point to social annotation for a few reasons: It makes an argument for digital tools as a means for connected reading, which were in line with our own goals for this cross-methods collaboration. Further, the text was brief and the prose was easily accessible, considerations that were key in introducing our preservice students to a new learning concept and platform.

The University A cohort started the process first as their course met earlier in the week of the planned activity. Then, University B students entered the digital conversation. What emerged was a series of social annotations in Turner's article that revealed connections with text and connections within and across learning communities (see Figure 1).

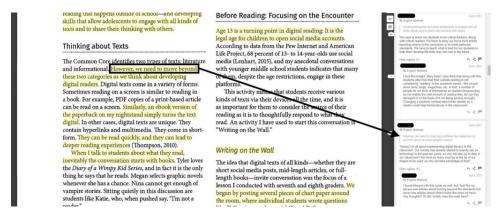


Figure 1 Screenshot of Example Annotations Within Turner (2017)

Annotation Categories

After completing all annotation activities, University A students and instructors analyzed and categorized all annotations to aid in a reflective discussion of the types of things students said using Hypothesis (see Figure 2). Annotations were most often opinion-based or a personal connection the student made with the text. While many annotations showed depth of thinking, rarely did student annotations describe specific classroom application ideas or bring forward arguments built explicitly upon the text. Based on these observations, students and instructors felt generally that social annotation using Hypothesis helped generate a lot of comments but did not necessarily promote the kind of dialogic discussions or sociocultural negotiation of understandings described earlier.

Figure 2 Word Cloud Showing Annotation Categories as Described by Students



The University B cohort engaged in a similar conversation with similar outcomes. Students reviewed the comments made in the shared Hypothesis documents and identified seven total categories ranging in purpose from "affirmation" to "summative" in nature. While we agreed that all annotations added value to the larger conversation, only some truly functioned to support the dialogic exchanges we sought to cultivate and sustain in our shared learning.

Student Reflections on Process

Instructors at both institutions facilitated reflective class conversations focused on the process of annotation. After experimenting with Hypothesis in class, several University A students showed excitement about potential benefits of social annotation, especially the ability to see others' ideas and to work through their thinking in an arena less formal than traditional classroom discussions. A few mentioned that social annotation seems especially appropriate for ELA classes as a tool for responding to texts, analyzing articles, and developing media literacy. After this in-class experience, we assigned the Turner (2017) article to be socially annotated with University B English methods students.

After collaboratively annotating with the University B cohort, several University A students expressed frustration with the technical side of Hypothesis, especially the difficulty of joining the private student group, browser incompatibilities, and the tool working on one device but not on another. One student felt that social annotation caused her reading to be more disjointed than normal because she was continually jumping from text to annotations and back to text, which interrupted her thought process.

Students who came late to the conversation felt a little overwhelmed because it appeared that everybody had already read and shared their thoughts. A couple University A students suggested that Hypothesis might be too technical or out of the comfort zone for high school students, who seem to need teacher support even during traditional annotation activities.

However, most University A students felt they benefitted from interactions with University B students because they were exposed to perspectives and experiences they would not have been otherwise. For example, the following discussion about purposeful reading shows how students from both universities engaged in exploratory thinking via social annotation:

University B student: This is an interesting observation, and it could be worthwhile to have our students consider why they choose to read some texts over others.

University A student: I could see how this would get to better know our students and also be able to choose texts for our students that might be closer to their interests.

Another University A student: This also reminds me of the important conversation we need to have with our students about author credibility and ethos.

Another University B student: Interestingly, in my Eng 300 [English major capstone course] this is a big part of our examination. We are required to keep a journal in which we jot down everything we have read and what readings led us to other reading.... Maybe an activity such as this could be made appropriate for the high school classroom.

Through interactions like this one, students felt they experienced dialogic learning, where comments built upon others' ideas and extended thinking in some way. One student remarked that annotating socially required her to think more deeply about her reading because she knew she would have to contribute comments to the conversation. Another University A student noticed that annotating early on allowed her to pose questions to the group that sparked valuable conversations that may not have occurred if she did the reading later in the week.

University B student reflections echoed many of those shared by their University A colleagues. Some noted that the technology made the process complicated. For example, several noted frustration in building fluency in a new notation process that felt both unfamiliar and clunky. More than a few students admitted to being "resistant" and said they preferred "old pen and paper" for engaging with their texts, which speaks to both the process and the platform. Another point of tension

identified by the University B cohort was how the public piece to the experience complicated how they responded to the central text.

Some students felt their responses were being evaluated by peers, and others worried that all the "good comments" were taken when they joined the online conversation. One effect of this feeling, as reported by students, was that peer comments became more focused on validating or affirming others' annotations rather than engaging with the text and moving the conversation forward. For example, the following interaction was in response to a paragraph detailing ways to engage in digital dialogue:

University B student: META.

Another University B student: I was literally thinking the exact same thing before I clicked on this annotation.

Another University B student: METAAAA!!

Many students, reflecting upon their experiences with social annotation and the depth of discussions in which they participated, shared concerns that social annotation in secondary classrooms could result in a lot of superficial interactions such as this one.

Positive feedback from University B students also pointed to the benefits of social annotation. Many remarked on the excitement of an expanded learning community and the new ideas revealed in others' comments. One student enthusiastically pointed to an annotation from a University A colleague that brought insight to them in their consideration of the shared texts' main ideas. As for its use in the secondary classroom, though University B students weren't sure social annotation was the best tool for them, they were sure of its many uses for secondary students. Not only could a platform like Hypothesis work to hold students accountable for reading, it could serve as a space for teachers to informally check for student understanding.

Conclusion

Reflecting on this exploratory practical experience using social annotation with preservice ELA teachers, we offer a few key takeaways. First, social annotation can be one way to expand a learning community beyond traditional classroom walls, giving students access to discussions and interactions they have not had previously. Second, our findings suggest potential benefits from setting ground rules when using social annotation to discuss texts. For example, teachers could require students to make a certain number of comments, pose a certain number of questions, or reply to others a certain number of times on any given text. Although less organic, these expectations could especially be helpful for secondary ELA students who might not know what an effective online discussion looks like.

Additionally, this study highlights the importance for teachers to be intentional with the digital tools they choose to employ with students. Because each new app or digital platform students and teachers use has a learning curve, we recommend purposeful implementation based on the accessibility of the technology, how effectively it addresses specific learning goals, and how well its intended purposes fit the needs of the students.

Working longer across two universities or examining larger groups of university students carrying on related conversations has the potential to bolster understanding of the factors at play students digitally annotate readings for class. Future studies that evaluate the quality of student discussions through social annotation would also shed light on the potential these activities have for dialogic learning. Moreover, it would be beneficial to explore how secondary ELA teachers and students use social annotation to deepen students' understanding of texts.

Student revelations in their digital annotations provide a final word:

"I love this insight Mary Kate! I also think that along with this, students often feel their outside reading is not consider[ed] 'reading' in the academic sense."

"Yassss! I'm all about implementing digital literacy in the classroom. Our society has already started to heavily rely on technology ... so why not stay up to date in our classroom?"

Social annotation is not a panacea for the ELA classroom, but to the spirit of experimentation and careful, research-grounded reflections, adjustment, and revision of our teaching, we say "Yassss," with enthusiasm.

References

Adler, M. J., & Van Doren, C. (1972). *How to read a book*. New York, NY: Touchstone.

Alvermann, D., McGrail, W., Young, C., Damico, N., & Zucker, L. (2019). "Beliefs for Integrating Technology into the English Language Arts Classroom": Reflections from scholars in the field. *Contemporary Issues in Technology and Teacher Education*, 19(3). Retrieved from https://www.citejournal.org/volume-19/issue-3-19/english-language-arts/beliefs-for-integrating-technology-into-the-english-language-arts-classroom-reflections-from-scholars-in-the-field">https://www.citejournal.org/volume-19/issue-3-19/english-language-arts-classroom-reflections-from-scholars-in-the-field

Bakhtin, M. (1981). The dialogic imagination. Austin, TX: University of Texas Press.

Bazerman, C. (2010). *The informed writer: Using sources in the disciplines*. Fort Collins, CO: The WAC Clearinghouse.

Beach, R. (2012). Uses of digital tools and literacies in the English language arts classroom. *Research in the Schools*, 19(1), 45-59.

Castek, J., & Beach, R. (2013). Using apps to support disciplinary literacy and science learning. *Journal of Adolescent & Adult Literacy*, *56*(7), 544-554.

Collins, A., Brown, J. S., & Holum, A. (1991). Cognitive apprenticeship: Making thinking visible. *American Educator*, 15(3), 6-11.

Fecho, B., & Botzakis, S. (2007). Feasts of becoming: Imagining a literacy classroom based on dialogic beliefs. *Journal of Adolescent & Adult Literacy*, 50(7), 548-558.

Gredler, M. E. (2009). *Learning and Instruction: Theory into Practice* (6th ed.). Upper Saddle River, NY: Pearson.

Hicks, T. (2018). The next decade of digital writing. *Voices from the Middle*, *25*(4), 9-14.

Hollett, T., & Kalir, J. H. (2017). Mapping playgrids for learning across space, time, and scale. *TechTrends*, 61(3), 236-245.

Jackson, H. J. (2001). *Marginalia: Readers writing in books*. New Haven, CT: Yale University Press.

Kalir, J. H., & Dean, J. (2018). Web annotation as conversation and interruption. *The Disrupted Journal of Media Practice*, *19*(1), 18-29.

Kalir, J. H., & Perez, F. (2019). The Marginal Syllabus: Educator learning and web annotation across sociopolitical texts and contexts. In A. Reid (Ed.), *Marginalia in modern learning contexts* (pp. 17-58). Hershey, PA: IGI Global.

Kumpulainen, K., & Wray, D. (2003). *Classroom interactions and social learning: From theory to practice.* London, UK: Routledge.

Larson, L. C. (2009). Reader response meets New Literacies: Empowering readers in online learning communities. *The Reading Teacher*, *62*(8), 638-648.

Lave, J., & Wenger, E. (1991). Situated learning: Legitimate peripheral participation. New York, NY: Cambridge University Press.

Lynch, T., Hicks, T., Bartels, J., Beach, R., Connors, S., Damico, N... & Zucker, L. (2019). Reprint: Beliefs for integrating technology into the English language arts classroom. *Contemporary Issues in Technology and Teacher Education*, 19(3). Retrieved from https://www.citejournal.org/volume-19/issue-3-19/english-language-arts-beliefs-for-integrating-technology-into-the-english-language-arts-classroom

Mercer, N., & Howe, C. (2012). Explaining the dialogic processes of teaching and learning: The value and potential of sociocultural theory. *Learning, Culture, and Social Interaction*, 1(1), 12-21.

Smagorinsky, P. (2013). What does Vygotsky provide for the 21st-century language arts teacher? *Language Arts*, 90(3), 192-204.

Turner, K. H. (2017). Sharing reading: Moving beyond tools to create a community of readers. *Voices from the Middle*, *24*(4), 36-42.

Vygotsky, L. S. (1978). Mind in society. Cambridge, MA: Harvard University Press.

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. New York, NY: Cambridge University Press.

Contemporary Issues in Technology and Teacher Education is an online journal. All text, tables, and figures in the print version of this article are exact representations of the original. However, the original article may also include video and audio files, which can be accessed online at http://www.citejournal.org