



HyperDocs, GIFs, and Collaboration Boards: Online Writing Instruction Supports for English Learners

During traditional, in-person writing instruction, teachers can quickly model tasks for students, students have clear directions for following lesson sequences step-by-step, and partner or group collaboration can begin by simply asking students to turn to whomever is sitting next to them. Online instruction poses challenges to these typical classroom dynamics, especially for teaching writing. This article highlights some tools (HyperDocs, GIFs, and collaboration boards, including Jamboard and Padlet) that I have integrated into the National Writing Project's "College, Career, and Community Writer's Program" (C3WP), an argument writing curriculum. In addition to making the units of instruction generally effective for online instruction, these specific adaptations are also designed to support English learners (ELs) as they learn writing skills in an online setting. In each section, I discuss the given tool, provide a rationale for why the tool fits the task originally outlined in the writing program, and explain the effectiveness of the tool for ELs.

Keywords: C3WP, HyperDocs, GIFs, Jamboard, Padlet, computer-assisted language learning (CALL)

The COVID-19 pandemic has impacted education in ways that will likely change teaching forever. During the shift to online or hybrid teaching and learning, teachers had to find ways to replace the traditional classroom activities and routines with new and innovative routes to reach learners. As an instructional coach to teachers who are implementing the College, Career, and Community Writer's Program (C3WP) in their classrooms, I adapted some of the cycles of instruction originally created by C3WP to better fit teachers' needs while implementing this program online. This article outlines three of the key tools that I used, their benefits for English learners (ELs), and examples of the adapted activities.

Background

The C3WP is a writing program that was developed by the National Writing Project (NWP) with the goal of improving upper elementary and secondary students' argumentative writing abilities. The program's design focuses on recursive, skills-based teaching of writing, engaging students in current and real-world arguments, and using formative assessment and extensive professional development to support teachers as they implement the cycles of instruction throughout the year (Friedrich et al., 2018). Although this program has been found to have a positive impact on students' argument writing skills (Arshan & Park, 2021; Arshan et al., 2018; Gallagher et al., 2017), the materials rely heavily on traditional in-person instructional routines.

Much of the C3WP teaching design includes a major emphasis on teacher modeling, gradual release, and student collaboration. These are all elements of teaching that have been deeply impacted by the shift to online and hybrid teaching. Teachers have expressed that some of the most difficult issues with the sudden shift to online teaching have to do with the lack of student interaction, both student-to-student and teacher-to-student, leading to a more direct instruction-based, teacher-centered pedagogical approach (Cutri et al., 2020). In addition, teachers have learned more about the inequities that exist in their student population, from lack of access to technology to the difficulty of reaching and supporting specifically their ELs remotely (Kim & Padilla, 2020; Marshall et al., 2020).

To tackle these issues presented by the COVID-19 pandemic's impact on the way that C3WP is traditionally implemented, I selected adaptations that were designed to specifically provide easier access to the materials, offer more teacher modeling and support, as well as encourage more interaction among students. These materials were adapted from the secondary units originally created by the NWP, including the units "Writing and Revising Claims," "Connecting Evidence to Claims," and "Ranking Evidence" (NWP, 2018). The adaptations examined in this article include the use of HyperDocs, graphics interchange format videos (GIFs), and collaboration boards like Padlet and Jamboard. In the sections that follow, I will begin with a brief overview and background of each tool before discussing the ways in which they specifically support ELs.

Overview of Instructional Tools

HyperDocs: Background and Benefits

One of the more complicated issues with online learning is the sheer number of locations where tasks and activities can exist. There are many difficulties that come with having so many places for students to complete their assignments or find lesson materials. Teachers often use Google Classroom, Canvas, or a similar platform as the home base for their virtual classrooms but then also add activities through external websites or applications for specific lessons. When students are provided with multiple links and spaces in which to complete work, they can have a hard time tracking where and how they are supposed to submit their work; this can add to existing anxieties that ELs may have in regard to technology-related comprehension issues, possibly raising their affective filter (Lewis & Atzert, 2000). Further, with online learning, students no longer have the typically required physical class notebook in which to complete their assignments.

HyperDocs are designed to address this issue by creating a single location where students have access to every activity and every link, as well as by providing a space for students to complete their work (Highfill et al., 2016). The format of a HyperDoc can vary by teacher, but essentially, the intention of designing a HyperDoc is to create one space where the whole lesson lives. A HyperDoc can be created as a Google Slides presentation, a Google Doc, a Google Site, or even a teacher-created interactive map using Google Maps (Highfill et al., 2015). They can also be created in a similar fashion using other tools, including Microsoft Office Suite and the Apple iWork productivity suite (HyperDocs, 2021), but examples are not specifically provided in this article. A HyperDoc should include all of the things a student needs to participate in the lesson, such as directions, space to complete assignments, any readings or texts, or links to any outside resources or activities, all presented in a clear, easy to follow format.

One benefit of using HyperDocs is the individualization of the tool based on the requirements of the lesson. For example, if a teacher is planning on using several videos in a particular lesson, they might use Google Slides to create the HyperDoc, because they can embed the videos directly into the slides (Carpenter et al., 2020). Alternatively, if a lesson requires a lot of text reading and annotation, the teacher might lean toward using Google Docs for their HyperDoc to provide students with more tools for

manipulating text. Another benefit of HyperDocs is the ease of adapting materials for differentiated instruction. Because they are integrated with Google Suite, there are a multitude of Chrome extensions that can easily be added on to support ELs: Google Translate, SpeakIt, Google Dictionary, and Read and Write (Ok & Rao, 2019) are just a few examples of extensions commonly used to support ELs. These extensions can be integrated directly within the HyperDoc on the student's end (Cross, n.d.). In addition to these add-ons, the ease of creating multiple versions of a HyperDoc is helpful for teachers who have many different levels of ELs in their classes. Once they sketch out a base lesson in a master HyperDoc, they can easily create multiple copies while adding any necessary supports, like adapted texts or helpful additions like sentence frames to activities, and then distribute a specifically modified HyperDoc version to each learner according to their needs.

Finally, the use of HyperDocs is especially helpful for online learning, particularly for supporting students using Chromebooks provided by their school. One issue many teachers faced this year was students' school-provided Chromebooks' inability to access multiple windows at once while a video conference application was running (Mackey-Knowles, 2020; Lieberman, 2020). Giving students all of the lesson activities in the one document requires students to have only one other tab open in addition to the video, which may reduce the number of technology issues arising during synchronous instruction.

Use of HyperDocs With C3WP

Most C3WP units contain recursive writing opportunities as well as annotation of multiple informational texts. The materials of any given unit are traditionally printed out and distributed in class, and students would record their writing and responses in a dedicated class notebook. In adapting these units, a HyperDoc was the most appropriate tool to combine all of these elements of the program.

In any HyperDoc that I created for C3WP, I added a table of contents with hyperlinks to each heading of each lesson and its activities (see Appendix A). The document is separated by lesson with larger title headings to indicate where each lesson begins and ends. Students are provided with space to complete every activity of the unit as well as with each text that students would need to read throughout each lesson. Additionally, the document contained all directions, hyperlinks, as well as any added supports such as sentence frames, and some even had integrated GIFs of teacher modeling. For an example C3WP HyperDoc activity page, please see Appendix B.

GIFs: Background and Benefits

GIFs are an interesting and emerging instructional tool that present many possibilities in the virtual classroom. Briefly defined, a GIF is an image format that typically consists of an animated image that loops endlessly, appearing as a video but without audio (Heinzman, 2019). GIFs are used widely in popular culture and social media, used very commonly for social interactions (Jiang et al., 2018), even to the point that popular smart devices, like Apple products, have a GIF search engine embedded directly into their iMessaging system (Apple, n.d.). Their popularity has two major advantages: students are very familiar with the GIF format, and their widespread use makes them very user-friendly for embedding into instructional materials.

Despite their common use in popular culture, GIFs are not quite as prevalent in education from the instructional standpoint. Arguably, there is a need for more research on the evaluation of GIFs as an instructional tool, but there are reported benefits in their utilization. In a review of the literature, research indicates that GIFs have been used as an instructional tool in biology (Sligh, 2000; Stith, 2004), in math (Altintas et al., 2017) and in the context of library database instructions (Suhr, 2014). Recently, GIFs have been increasingly studied as a support for language learning. Uniquely, GIFs were found to be a support

in teaching deaf bilingual ELs vocabulary, showing positive impact on uptake of meaning as well as connection of the written vocabulary word with the American Sign Language sign for the word (Nichols, 2018). Importantly, another study found that incorporating GIFs as a visual support for instruction and modeling had a positive impact on ELs' ability to accurately complete a task (Salazar & Larenas, 2018). In spite of the general lack of research, what is available does suggest that GIFs can have positive impacts in various ways for ELs.

Another major benefit to using GIFs is their ease of use and integration. There are many free and easy-to-use GIF creation websites, one of which is GIPHY.com (Giphy, n.d.). On this website, users can easily create a free account, upload any video, and customize the GIF as needed. Once created, GIPHY provides multiple ways to share the GIF, including a link that goes directly to the GIF, a GIF embed code, and multiple media sharing links. After selecting the appropriate sharing option, the GIF is then easily integrated into instructional materials, like Google Slides, Google Docs, and even into HyperDocs. I created a video showing how to create and integrate GIFs into Google Slides and HyperDocs, which might be helpful to view so as to see the way a GIF works within instruction (DeCamillis, 2021).

Although GIFs can be beneficial for supporting students via providing looping models of instruction, it is important to note that they are inaccessible to people with certain disabilities. Aleman and Porter (2016) give examples of strategies to provide supplemental resources alongside any instructional materials that include GIFs, including alternate text, descriptive captions, and more (pp. 73–76).

Use of GIFs With C3WP

A key component of C3WP instruction is teacher modeling, especially with text annotation, teacher think alouds, and demonstrations of how to use graphic organizers that are new to the students. One example of an activity that needs clear teacher modeling is in the “Connecting Evidence to Claims” unit called the “Connecting Evidence to Claims Organizer” (NWP, 2018). This organizer is quite complicated at first use, so in order to support this need, I used Screencast-O-Matic to create a video of my screen as I completed the graphic organizer, including adding my claim, evidence, and explanation in the correct locations on the organizer. I then uploaded the screencast video to GIPHY, created multiple GIFs of specific clips from the video, and then inserted them into the instructional Google Slides, thus creating an infinite, looping model from the teacher that students have access to at all times (see Appendix C).

By providing ELs with a video that repeats itself automatically, teachers support students by allowing them to rewatch the instructional model as many times as they need to. GIFs are a way to give visual directions without the need to read or listen, effectively lowering the cognitive load of the learner as they simply watch the direction happen in the GIF. If needed, teachers could also insert a GIF like these models directly into a HyperDoc in the form of Google Docs, further supporting the students as they work through complex activities remotely.

Collaboration Boards (Padlet and Jamboard): Background and Benefits

In many classrooms, especially for ESL and English Language Arts, it is commonplace to see large sheets of chart paper covered in student-created sticky notes, or even elaborate, collaboratively created handwritten anchor charts that remain up throughout a unit. In the online classroom, these charts can be replaced by collaboration boards like Padlet and Jamboard. Padlet and Jamboard offer educators ways for students to interact with materials, exercise their creativity, and collaborate with each other virtually. Additionally, collaboration boards serve as a great way for teachers to gain easy and fast formative assessment of student learning as they contribute to the board.

Although Jamboard offers a physical component through a smart display board option (Gavin, 2019), it is very usable without the added hardware. Using the Google App alone, Jamboard is arguably the simpler of the two collaboration boards, offering minimal tools like sticky notes, text boxes, shapes, and annotation tools. One of the major benefits of using Jamboard is simply that it is a part of Google Suite, with which many students and teachers are already familiar. On the other hand, Padlet offers many more options and setting customizations. For example, when a user is creating a Padlet, there are different styles of boards available: Wall, Timeline, Backchannel, and more. Next, there are additional settings for Padlet, including features for commenting and liking posts, wallpapers, options for anonymous or authored posts, and even a setting for filtering profanity as well as requiring approval for posts.

Further, Padlet has been studied as a support specifically for ELs. Sari (2019) found that ELs reported Padlet to be easy to use and expressed appreciation for the anonymous posting function, which allowed them to respond more freely and focus more on the content rather than worrying about how they might be perceived if their names were attached to their post. Sundararajan and Maquivar (2017) similarly found that students who were less likely to participate verbally in class were more likely to participate on Padlet, given that they had more time to prepare and organize their answers before posting. Finally, Nadeem (2021) found in a case study examining student perceptions of Padlet usage that integrating Padlet into instruction “enhanced all aspects of student engagement” (p. 82). Regardless of the type used, there are clearly many opportunities for the use of virtual bulletin boards, especially in relation to ELs.

Use of Collaboration Boards With C3WP

In the traditional in-person classroom, C3WP offers students multiple opportunities to interact, whether in the form of an informal “turn and talk” or in a more structured group work dynamic like an informational jigsaw reading activity. This becomes more difficult when teaching remotely or virtually, especially with the variety of restrictions across different school districts (for example, some districts restricted the use of extraneous technologies or websites in instruction). Padlet and Jamboard help provide a space where students can interact with each other, and at the very least give them a chance to see what their peers are thinking about the topic at hand.

In two units, I added an option for Padlet as a space for student interaction. For the first unit’s Padlet, students responded to an infographic that they read, so they only used the Padlet for one specific activity. The assignment provided students with sentence frames in the instructions on the Google Slides and asked them to post their thoughts, then respond to at least one other student’s post. I chose my Padlet settings to encourage more interaction by selecting “anonymous posts” as well as offering the “like” button (see Appendix D, Figure D1). The second unit’s Padlet was intended to be a space to show how thinking changes as we become informed on an issue. Students were instructed to revisit the Padlet at a certain point in each lesson, add posts to the various columns, and respond to posts their classmates made. This version of Padlet mimics the traditional in-person anchor chart that builds over the course of a unit.

As far as Jamboard goes, this tool was typically used as an informal assessment mechanism. In the “Ranking Evidence” unit, students added to a simple Jamboard to create an anchor chart answering the question of “What makes evidence ‘good?’” (see Appendix D, Figure D2). The benefit of using this as a quick formative assessment tool is that the teacher can see the students’ identifying features (i.e., Google account avatar or name) as they add their sticky notes to the Jamboard, but their names and avatars are not posted alongside their comment or contribution for all students to see. This allows the teacher to get

a sense of who might be struggling with concepts without the permanence of attaching student names to their posts indefinitely (see Appendix D for a sample Padlet and Jamboard).

Limitations

As with any great teaching tool, limitations accompany each tool discussed in this article. For HyperDocs, one of the biggest limitations is the interactive piece. It falls on the teacher to incorporate ways for students to interact with each other and share their ideas. Another limitation of HyperDocs is that there is not a “correct” way of creating a HyperDoc, so this can lead to confusion about what exactly a HyperDoc is and what it is designed to do. Because of this, there are many interpretations of how to create HyperDocs, so teachers must be careful to be sure that they are actually using a true interactive HyperDoc as outlined by Highfill et al. (2016) to fully “move beyond a digital worksheet” (Carpenter et al., 2020, p. 3). Similarly, students can often feel overwhelmed with multiple links to multiple documents. Working closely with colleagues to ensure consistency within the usage of HyperDocs across the institution can help alleviate some of these concerns. A specific limitation of this article is that there are no examples of HyperDocs outside of Google Suite provided—however, samples do exist (HyperDocs, 2021). Additionally, because the HyperDocs design offers a single document within which students complete the lesson, this does not necessarily translate to other instructional platforms, for example, as a page on Canvas or Schoology.

In regard to GIFs, as mentioned before, there are access limitations involved for people with certain disabilities. Although there are many adaptations and modifications available to make GIFs more accessible (Aleman & Porter, 2016), they are time consuming and require some level of technical expertise. Secondly, in one study of GIFs used in math instruction, they were found to be inadequate either visually—e.g., too fast, too slow, or not engaging enough—or educationally—e.g., confusing or not academically clear and understandable (Altintas et al., 2017). These same issues can occur when teachers create instructional materials for ELs, manifesting as overly wordy and dense slides or clunky visuals that contribute to misunderstanding. This shows that teachers must take very special care when creating GIFs to make sure they do not overwhelm the student or provide instructions that lack clarity.

Additionally, specifically relating to Jamboard, in order for the teacher to be able to see the accurate Google avatar or account name for each student, the whole school should ideally be using Google Suite. If students must use personal accounts instead of student ones or are anonymous avatars on the collaborative Jamboard, this would create more work and possibly provide less anonymity. Finally, although Padlet and Jamboard have shown positive results in various studies (Sari, 2019; Sundararajan & Maquivar, 2017), the limited research currently available regarding whether or not students themselves perceive these collaboration boards to be helpful in their learning or whether these tools are as interactive as they seem to be, highlight an area of need for further research.

Conclusion

The shift to online teaching that nearly every teacher experienced in response to the COVID-19 pandemic has revealed opportunities amidst the challenges. Educators around the world discovered new ways to adapt their teaching and materials to fit an online instructional environment—HyperDocs, GIFs, and collaboration boards are simply three examples that were particularly beneficial for online writing instruction. Although limitations remain, a huge benefit of these adaptations and tools is that they can be used regardless of whether teachers are in a physical classroom or using some version of online teaching. However, it is important to emphasize the need for targeted, practical professional development on these and other online teaching tools for teachers. Language teachers typically receive little official training on technology tools and often must rely on their own skills or self-teaching of various technologies (Compton,

2009). Current research suggests professional development in web-based teaching tools is helpful, but there remain issues with technology access both for learners and educators (Bustamante, 2020). In order for teachers to effectively use these tools in the quickly transforming virtual and hybrid teaching world, research must be done to identify the best practices for offering training as well as technology access for educators so that these tools truly make an impact pedagogically as well as provide adequate support to learners.

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References


- Aleman, K. J., & Porter, T. D. (2016). 10-second demos: Boiling asynchronous online instruction down to the essentials with GIF graphics. *Journal of Library & Information Services in Distance Learning*, 10(3–4), 64–78. <https://doi.org/10.1080/1533290x.2016.1193414>
- Altintas, E., Işın, Ş., & Kucuk, S. (2017). Evaluation of use of Graphics Interchange Format (GIF) animations in mathematics education. *Educational Research and Reviews*, 12(23), 1112–1119. <https://doi.org/10.5897/err2017.3369>
- Apple. (n.d.). Send and save GIFs with the Messages app on your iPhone, iPad, or iPod Touch. <https://support.apple.com/en-us/HT207179>
- Arshan, N. L., Park, C. J., & Gallagher, H. A. (2018). Impacts on students of a short-cycle implementation of the National Writing Project's College, Career, and Community Writers Program. *SRI International*.
- Arshan, N. L., & Park, C. J. (2021). Research brief: SRI finds positive effects of the College, Career, and Community Writer's Program on student achievement. *SRI International*.
- Bustamante, C. (2020). TPACK-based professional development on web 2.0 for Spanish teachers: A case study. *Computer Assisted Language Learning*, 33(4), 327–352. <https://doi.org/10.1080/09588221.2018.1564333>
- Carpenter, J. P., Trust, T., & Green, T. D. (2020). Transformative instruction or old wine in new skins? Exploring how and why educators use HyperDocs. *Computers & Education*, 157, 103979. <https://doi.org/10.1016/j.compedu.2020.103979>
- Compton, L. (2009). Preparing language teachers to teach language online: A look at skills, roles and responsibilities. *Computer Assisted Language Learning*, 22(1), 73–99. <https://doi.org/10.1080/09588220802613831>
- Cutri, R. M., Mena, J., & Whiting, E. F. (2020). Faculty readiness for online crisis teaching: Transitioning to online teaching during the COVID-19 pandemic. *European Journal of Teacher Education*, 43(4), 523–541. <https://doi.org/10.1080/02619768.2020.1815702>
- Cross, T. (n.d.). Helpful chrome extensions - ESL tech toolkit. Retrieved March 19, 2021, from <https://sites.google.com/site/esltechtoolkit/chrome-apps-extensions/chrome-extensions>

- DeCamillis, K. (2021, October 11). How to create a GIF for modeling [Video]. YouTube.
<https://youtu.be/w088C2JF2Rk>
- Friedrich, L., Bear, R., & Fox, T. (2018). For the sake of argument: An approach to Teaching evidence-based writing. *American Educator*, 42(1), 18.
- Gallagher, H. A., Arshan, N., & Woodworth, K. (2017). Impact of the National Writing Project's College-Ready Writers Program in high-need rural districts. *Journal of Research on Educational Effectiveness*, 10(3), 570–595. <https://doi.org/10.1080/19345747.2017.1300361>
- Gavin, B. (2019, September 16). What is Google Jamboard (and do I need the hardware to use it)? How-to Geek. <https://www.howtogeek.com/439596/what-is-google-jamboard-and-do-i-need-the-hardware-to-use-it/>
- Giphy. (n.d.). GIPHY Create. GIPHY. <https://giphy.com/create/gifmaker>
- Heinzman, A. (2019, September 24). What is a GIF, and how do you use them? How-to Geek. <https://www.howtogeek.com/441185/what-is-a-gif-and-how-do-you-use-them/>
- Highfill, L., Hilton, K., & Landis, S. (2015). Extreme pedagogy makeover using multimedia text sets & HyperDocs. https://docs.google.com/document/d/19Uh-bjN9ZYDyhU5XrFoPAQfJ98wDnjp2_D0CM75G3c/edit
- Highfill, L., Hilton, K., & Landis, S. (2016). *The HyperDoc handbook: Digital lesson design using Google Apps*. EdTechTeam Press.
- HyperDocs (2021, October 11). Home Page. hyperdocs. Retrieved October 11, 2021, from <https://hyperdocs.co/>
- Jiang, J. A., Fiesler, C., & Brubaker, J. R. (2018). “The perfect one”: Understanding communication practices and challenges with animated GIFs. *Proceedings of the ACM on Human-Computer Interaction*, 2(CSCW), 1–20. <https://doi.org/10.1145/3274349>
- Kim, C. J. H., & Padilla, A. M. (2020). Technology for educational purposes among low-income Latino children living in a mobile park in Silicon Valley: A case study before and during COVID-19. *Hispanic Journal of Behavioral Sciences*, 42(4), 497–514. <https://doi.org/10.1177/0739986320959764>
- Lewis, A., & Atzert, S. (2000). Dealing with computer-related anxiety in the project-oriented CALL classroom. *Computer Assisted Language Learning*, 13(4–5), 377–395. [https://doi.org/10.1076/0958-8221\(200012\)13:4-5;1-e;ft377](https://doi.org/10.1076/0958-8221(200012)13:4-5;1-e;ft377)
- Lieberman, M. (2020, August 24). Laptop delays, Zoom glitches, equity gaps: Remote learning faces big challenges. Education Week. <https://www.edweek.org/leadership/laptop-delays-zoom-glitches-equity-gaps-remote-learning-faces-big-challenges/2020/08>
- Mackey-Knowles, L. (2020, September 18). Zoom issues across the country impacting learning. Swampscott Public Schools News & Announcements. Retrieved February 18, 2021, from <https://www.swampscottps.org/2020/09/18/zoom-issues-across-the-country-impacting-learning/>
- Marshall, D. T., Shannon, D. M., & Love, S. M. (2020). How teachers experienced the COVID-19 transition to remote instruction. *Phi Delta Kappan*, 102(3), 46–50. <https://doi.org/10.1177/0031721720970702>
- Nadeem, N. H. (2021). Students' perceptions about the impact of using Padlet on class engagement: An exploratory case study. In *Research Anthology on Developing Effective Online Learning Courses* (pp. 1919–1939). IGI Global. <https://doi.org/10.4018/978-1-7998-8047-9.ch095>
- National Writing Project. (2020). College, Career, and Community Writer's Program (C3WP). *Creating Respectful Discourse for Change in the 21st Century*. <https://sites.google.com/nwp.org/c3wp/home>
- Nichols, J. (2018). *Revitalizing language learning: Using media for visual story experiences* (Doctoral dissertation, UC San Diego).

- Ok, M. W., & Rao, K. (2019). Digital tools for the inclusive classroom: Google Chrome as assistive and instructional technology. *Journal of Special Education Technology*, 34(3), 204–211.
<https://doi.org/10.1177/0162643419841546>
- Salazar, G. U., & Larenas, D. C., (2018). Using an audiovisual materials-based teaching strategy to improve EFL young learners' understanding of instructions. *How*, 25(2), 91–112.
<https://doi.org/10.19183/how.25.2.419>
- Sari, A. B. P. (2019). EFL peer feedback through the chatroom in Padlet. *Journal on Language and Language Teaching*, 22(1), 46–57. <https://doi.org/10.24071/llt.2019.220105>
- Sligh, D. F. (2000). Creating computer animations of biological concepts. *The American Biology Teacher*, 62(2), 94–97. [https://doi.org/10.1662/0002-7685\(2000\)062\[0094:ccaobc\]2.0.co;2](https://doi.org/10.1662/0002-7685(2000)062[0094:ccaobc]2.0.co;2)
- Stith, B. J. (2004). Use of animation in teaching cell biology. *Cell Biology Education*, 3(3), 181–188.
<https://doi.org/10.1187/cbe.03-10-0018>
- Suhr, K. (2014, October 22). Using animated GIF images for library instruction [Web log post]. Retrieved from <https://www.inthelibrarywiththeleadpipe.org/2014/using-animated-gif-images-for-library-instruction/>
- Sundararajan, N., & Maquivar, M. G. (2017). 731 How to increase student participation and engagement using Padlet: A case study of collaborative discussion in an animal sciences course. *Journal of Animal Science*, 95(suppl_4), 356–356. <https://doi.org/10.2527/asasann.2017.731>

Appendix A

Screenshot of Table of Contents Page in a Sample HyperDoc

<h1>Connecting Evidence to Claims</h1> <h2>Topic: Social Media</h2> 		
<h3>HyperDoc Table of Contents</h3> <p>(Click to go directly to each page)</p>		
Thinking Tracker <ul style="list-style-type: none"> LINK 	Lesson 1: Writing Sprints <ul style="list-style-type: none"> Thinking Tracker 	Lesson 2: Getting Informed <ul style="list-style-type: none"> Lesson 2 Part 1 <ul style="list-style-type: none"> Text #1 Text #2 Text #3
Lesson 2: Responding to Perspectives <ul style="list-style-type: none"> Lesson 2 Part 2 <ul style="list-style-type: none"> Creating a Graphic 	Lesson 3: Writing Claims, Identifying Evidence <ul style="list-style-type: none"> Lesson Instructions Thinking Tracker 	Lesson 4: Planning an Argument <ul style="list-style-type: none"> Connecting Evidence to Claims planner

Appendix B

Screenshot of an Activity Page of a Sample HyperDoc

Lesson 3: Writing Claims, Identifying Evidence

On your [Thinking Tracker under Lesson 3](#), write out your claim. If you want, you can use one of these sentence frames to help you:

Sentence Frames for Claims:

- **Fact:**
Social media IS / IS NOT _____
because ____.
- **Value:**
Social media is GOOD / NOT GOOD
because ____.
- **Policy:**
_____ SHOULD / SHOULD NOT (do ____
with social media).

Nuance - Add the other side:

- Because of _____, (people) should / not ____.
- Although _____, (people) should / not ____.

Add Nuance! Try these words:

*probably, usually, should,
most likely, and often.*

Now that you have your finalized claim, which pieces of evidence directly support your claim?

- Read back through all of the evidence you put into [your thinking tracker on your Reading Side](#).
- Choose 2-4 pieces of evidence that support your claim, and **highlight them** in your [thinking tracker](#).

Share your Thinking Tracker with a partner (be sure to click "Comment Only" when you share)
Open up your partner's thinking tracker, then:

Read their Claim

- ☐ Is it debatable?
- ☐ Is it defensible?
- ☐ Is it compelling?

Make a comment with praise, a question, or a suggestion to improve their claim.

Read their Highlighted Evidence

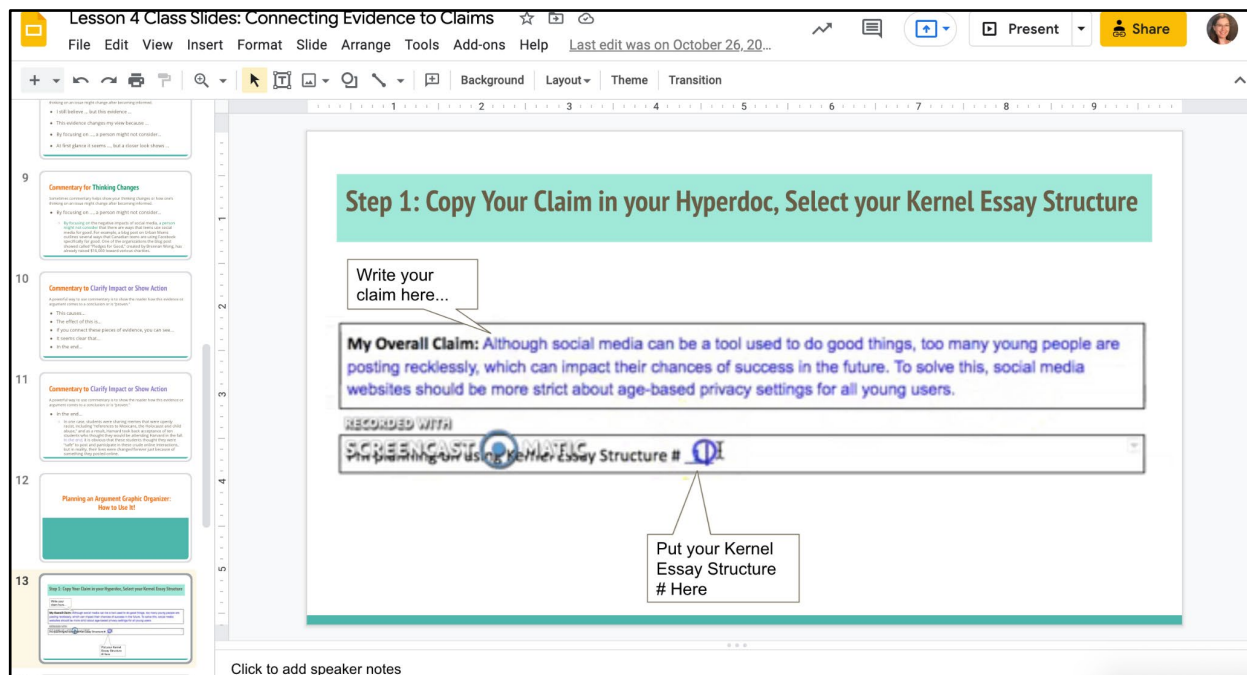
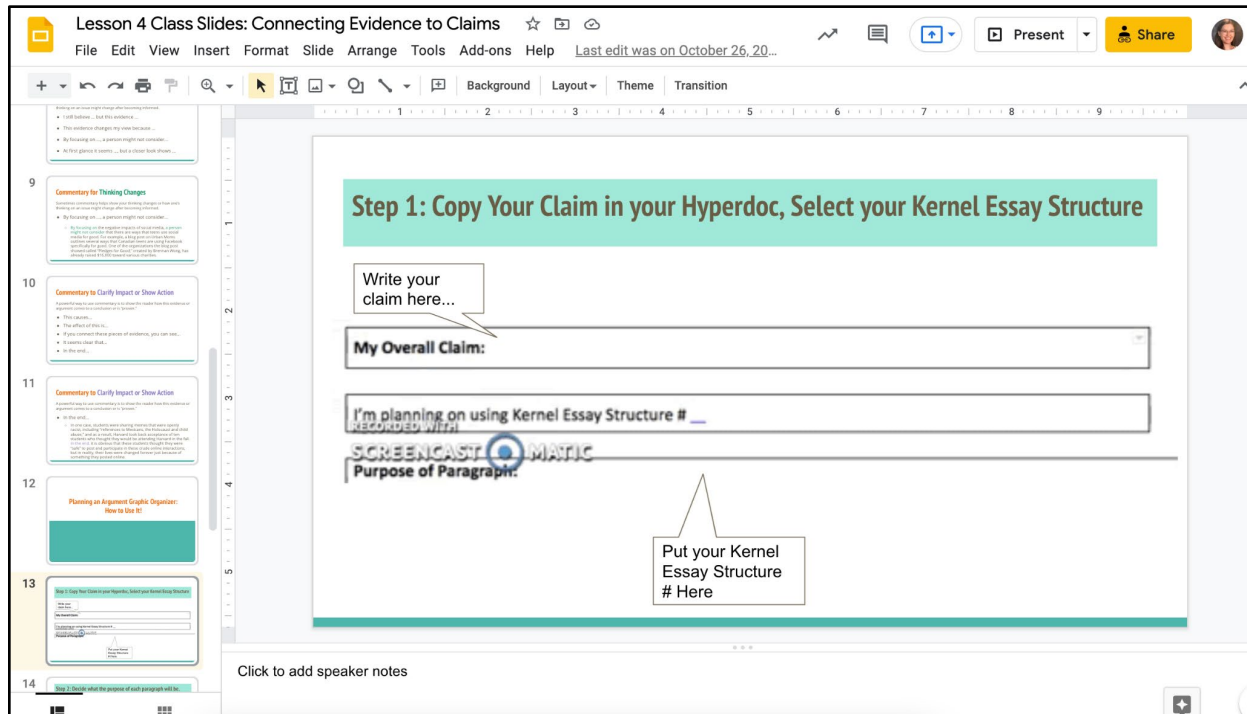
- ☐ Does it support their claim?
- ☐ Does it include the source?

If needed, make a comment to suggest how to strengthen their choice of evidence.

Appendix C

Example GIFs

Note, the GIF is not active here. In the first image, the model is empty, but as the GIF loops, the teacher's model claim appears in the image.



Appendix D

Example Collaboration Boards

Figure D1
Screenshot of Sample Padlet

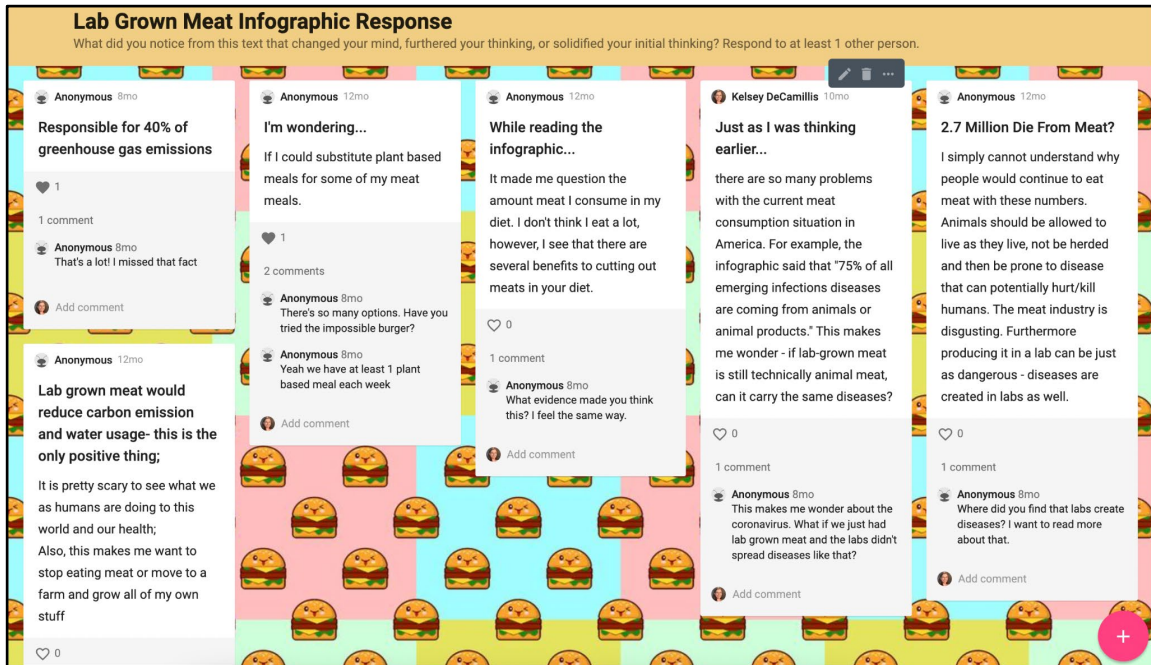


Figure D2
Screenshot of Sample Jamboard

