Hypothes.is Integration with Canvas

Results of UW's Winter 2021 Pilot

In winter quarter 2021, 17 instructors from across UW's three campuses utilized the Hypothes.is social annotation tool in their courses. Both instructors and students were invited to provide feedback on their experiences with Hypothes.is via an end-of-quarter survey. Ten instructors and 62 students (from 14 courses) responded.

Impacts on Learning with Hypothes.is

As with the autumn pilot, the overall assessment of Hypothes.is by both instructors and students was positive. Asked to rate Hypothes.is as an educational tool, 91% of instructors rated it "Good" (55%) or "Great" (36%); one rated it "Fair."

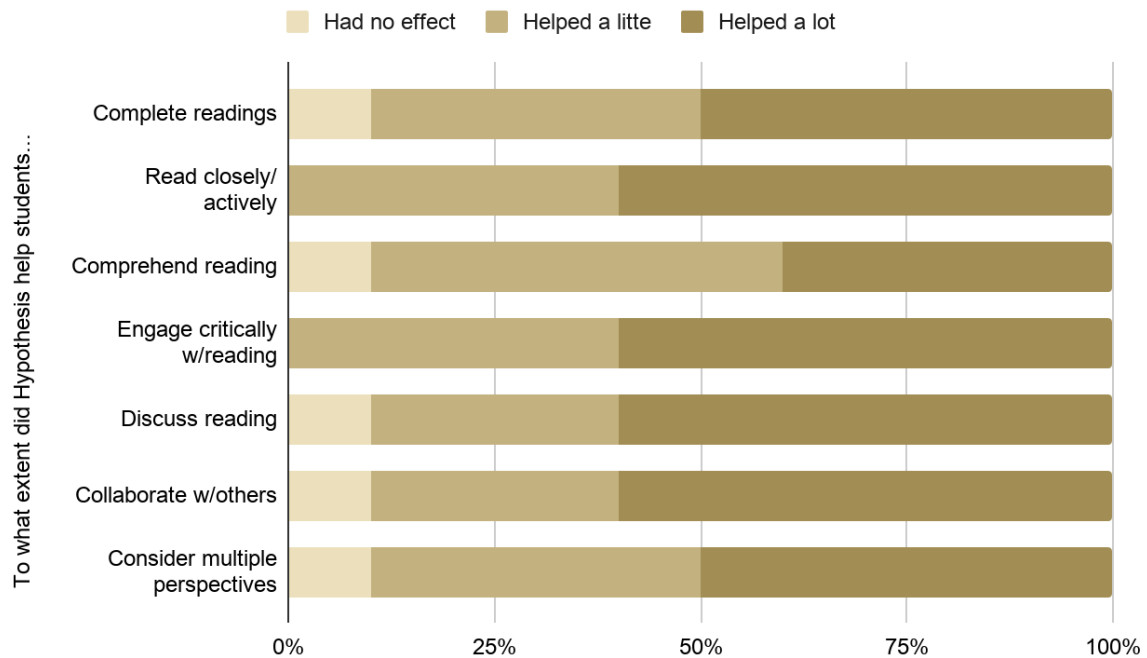Asked to explain their ratings, two instructors provided detailed feedback:

> 1. **Hypothes.is increases student participation and encourages closer reading**. When students know their peers might read and respond to what they've written, they typically write more precise comments and/or questions. Because students are highlighting and annotating particular passages, moreover, **their comments are more focused** than I typically see on generic course discussion boards. 2. **Hypothesis provides me, as an instructor, some guidance about which passages in the assigned reading that students found most difficult** before I enter the class. It helps me prepare. 3. Finally, the tool **allows students who are more reluctant to speak in class to participate** in pre-class discussion and to guide parts of in-class discussion without speaking up during a class meeting. — Instructor
>
> **It was easy and intuitive for both me and my students to use;** the ability to both make private notes and highlights and annotations shared with classmates makes it a robust tool that instructors and students can utilize in multiple ways. **Using Hypothes.is seemed to improve the depth of students' discussions** about assigned reading; also I appreciated being able to [use Hypothes.is to] answer questions that came up, link to relevant additional materials etc. — Instructor

Asked specifically about the extent to which use of Hypothes.is did or did not help students achieve specific learning goals, both instructors and students reported that the tool had a significant impact on student learning (see charts below). The results are similar to those seen in the autumn pilot.

All instructors indicated that using Hypothes.is helped students either "a little" or "a lot" to read closely/actively and to engage critically with readings. All but one indicated the same for the remaining learning goals.

Effect of Hypothes.is on Student Learning (Instructors)

Legend: Had no effect | Helped a litte | Helped a lot

To what extent did Hypothesis help students...

- Complete readings
- Read closely/actively
- Comprehend reading
- Engage critically w/reading
- Discuss reading
- Collaborate w/others
- Consider multiple perspectives

(Chart x-axis: 0% 25% 50% 75% 100%)

Among students, 89% rated the tool "Good" (48%) or "Great"(42%); six students rated it "Fair" and one rated the tool "Poor."

> *It made the readings come alive* when we could talk with each other about them...given how isolating it is taking classes on Zoom it was not only refreshing, but also educational to be able to respond to each others' comments and on the readings as a whole. Love it. — Student
>
> *The UI is efficient and easy to use*. *It also allows engagement with the text in terms of direct quotes much better than simple discussion board posts*. I liked being able to read through the text and see what other students had emphasized or thought about certain parts. — Student
>
> When I annotate by myself I know exactly how each note is important to me, *when I see how other people interpreted the text it adds new perspective* that I may have overlooked when reading… [It] *helped add context and substance to what we read*. — Student

Students also reported that use of the tool helped them considerably with learning goals – especially to consider multiple perspectives, discuss readings, and collaborate with others –

consistent with findings from the autumn pilot. Students in both autumn and winter credited the tool for helping with these learning goals more than instructors.

Effect of Hypothes.is on Student Learning (Students)
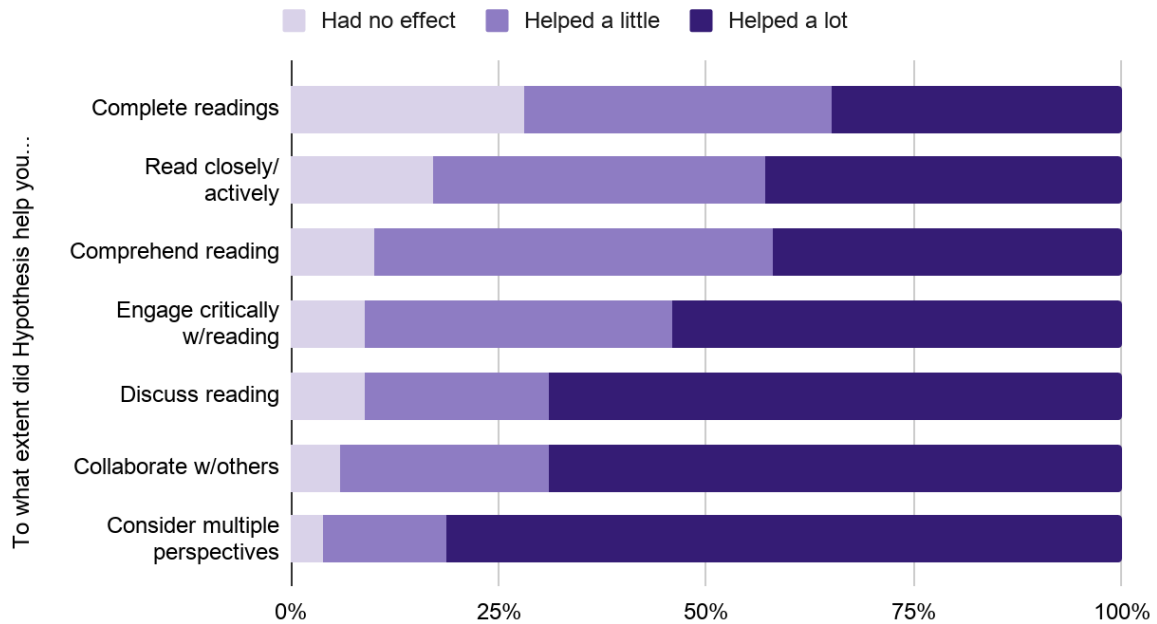
More students in winter than in autumn reported that using Hypothes.is "had no effect" on several learning goals. Five or more students selected this option for complete readings (16), read closely/actively (10), comprehend what they read (6), engage critically with readings (5), and discuss what they read (5). This may be due in part to the way instructors used Hypothes.is in their courses. (We are aware of one instructor who used it briefly in class and another who used it only to share instructor annotations on a text.)

Technical issues deterred some students from giving Hypothes.is a higher rating:

> **Sometimes it would take a while to load or be too crowded** but I liked using it to see what my peers were thinking and I liked how it attached it to specific parts of the text. — Student
>
> There was some technology issues that prevented me from rating this "great." However, **this was a great tool for communication** through annotations, **it really helped understand texts and establish a sense of classroom** during our online instructions. I enjoyed being able to annotate through this software as opposed to paper. — Student

Ease of Use and Adoption

As in the autumn pilot, a large majority of instructors and students found Hypothes.is easy to use and adopt.

For most students (88%) and instructors (64%), this was their first time using a social annotation tool. The remainder had either piloted Hypothes.is in the autumn or indicated using Manifold and Google Docs as social annotation tools.

When asked to rate Hypothes.is in comparison to other learning tools they adopted in the past, 6 out of 10 instructors rated it "easier to adopt" and another three said it was "about the same." One instructor rated it as "more difficult to adopt." In general, the positives seemed to outweigh the difficulties with adoption.

> *Although with a fair bit of work one can accomplish about the same objectives in Google Docs, **Hypothes.is has two significant advantages: excellent functionality that is appropriate to social annotation and a very clean interface** that makes tracking and responding to others' comments much easier. I think it's brilliant, and **the best discussions we had all quarter stemmed from the students' work on annotating very difficult texts** in Hypothes.is. — Instructor*

Nine out of 10 of instructors rated Hypothes.is as "Easy" (5) or "Very Easy" (4) to use; one instructor rated it "neutral." Seven out of 10 instructors reported that they did not need support with Hypothes.is. Another two said they were able to get help when needed, and one reported that they were unable to get support.

When asked how they would rate the amount of tech support required by their students with Hypothes.is, 4 of 10 instructors indicated that their students did not need support, and the remainder found it "manageable" or "very manageable."

Nearly three quarters of student respondents (73%) rated Hypothes.is "easy" (49%) or "very easy" (24%) to use. Another 24% rated it "neutral," and two students found it "difficult." Technical frustrations and the learning curve may have contributed to the difficulty some students experienced.

> *Clunky design, have to view it in a small window. **Reading annotations covered the text so I couldn't read/view both simultaneously**. — Student*
>
> *When first loading it up, I was quickly overwhelmed as I had no clue what to do. Luckily, my instructor sent the class a page link with instructions, and **once I got the hang of it after the first annotation, I found it was very easy to use**! — Student*

Future Use of Hypothes.is

Compared to those who responded in autumn, there was just slightly less enthusiasm among winter pilot participants regarding future use of Hypothes.is. Eight of ten instructors said that they were "likely" (6) or "very likely" (2) to use Hypothes.is for another course; the remaining two were unsure. Eight of the ten also reported that they were "likely" (3) or "very likely" (5) to recommend Hypothes.is to other instructors. One reported that they were "not sure" they would recommend the tool, and one said they were "very unlikely."

> Selecting "Helped a lot" for every category can seem hyperbolic, but **the contrast between guided, individual pre-discussion work and what resulted from the Hypothesis exercises was striking**. Most important, and I cannot underscore this enough, is that **it brought out the students who normally keep a low profile during discussions**. Because others responded to their comments on the text, they felt validated and motivated to contribute to the broader discussion. **I'm typically not an early adopter of instructional tech, but this is a game changer**. — *Instructor*

As in the autumn pilot, students expressed less certainty about future use than instructors. When asked "How likely are you to continue to use Hypothes.is for your school work beyond this course?" the most frequently selected responses were "Not sure" (37%) and "Unlikely" (23%).

Students also gave mixed responses on how likely they were to recommend Hypothes.is to a classmate or a friend for studying purposes. While 40% reported that they were "likely" or "very likely" to recommend the tool, a near equal percentage (38%) answered that they were "not sure." In comments similar to those from the autumn survey, students appeared to view Hypothes.is primarily as a collaborative tool. They expressed interest in using it for future classes, but appear less likely to use it on their own.

> *I think **Hypothesis would be a nice addition to UW courses that have online canvas readings. It certainly is more interactive** and allows me to engage with other classmates' perspectives about the material, and have mini discussions about the readings.* — Student
>
> *It was a good tool for the classroom setting but **as for doing readings on my own, I'd rather just annotate my copy by hand**.* — Student
>
> ***Worked well for online group reading but I would not use individually** for my own studying or reading* — Student

Areas for Improvement

The critical feedback from instructors and students focused primarily on technical issues.

While many students praised the user interface, some students have complained that the window to view a document is too small and that annotations can sometimes cover parts of the text. This may be a result of instructors not choosing "open in a new tab" for the external tool. When an instructor does not make this choice, Hypothes.is is embedded in an iFrame on the assignment page and this provides a very small workspace. This is guidance we have currently included in a "Tips and Tricks" email for instructors new to using the tool, and something we would need to educate faculty about if we adopt the tool.

> *I thought the tool worked well, but I noticed a few ergonomic issues, such as, a small window through which we read the document. **It is much easier to download the document and read it through another application**. — Student*
>
> *Does it work? Yes, somewhat. Does it have potential in allowing much more engaging learning experience? Yes. **Is it optimized (i.e., how long it takes, how many features there are)? Needs a bit of work**. — Student*

Students also mentioned that they wanted to be able to
- Download a copy of the text with their annotations
- View their instructor's annotations alone and turn off other students' annotations
- Get notified when someone responded to their annotation

In the winter pilot, students who were enrolled in different cross-listed sections of a course were able to see only the annotations of others who enrolled in the same course. This is a known issue; the solution requires the instructor to create manual sections to unite different portions of the course.

> *I used it in a course that was multi-listed; one could register for it as a CHID, LIT or French class. Unfortunately through Hypothes.is, **we were only able to see annotations by students who were registered under the same category** as us, which limited my experience. — Student*

One instructor in the winter pilot saw potential in using Hypothes.is for students' individual final projects. The goal here was for each student to annotate a document of their choosing, which necessitated a complicated arrangement for assignment creation. The instructor found that Hypothes.is did not support the workflow they had in mind:

> *I think there are a couple of issues with using Hypothesis for final individual projects. One is that all students need to be annotating the same text. **It works as a final test, but not as a final project where the students can pick a text that was not part of the course reading materials**....you'd have to create a Hypothesis assignment on Canvas, assign only to the student doing that specific final project, make the assignment not to count towards the final grade, otherwise other students would be at a disadvantage, and add the student's grade on the "final projects" tab on Canvas. — Instructor*

Other instructors spoke about the challenges of finding accessible PDFs of existing content for courses that are not new ("It's lots of trying to find the right text selectable pdf when I already have the reading set up sometimes — which can be time consuming").

Finally, perhaps one of the biggest hurdles for continued use of Hypothes.is is the inability of the tool to update document links when a course is copied. Currently, faculty have to manually relink all of their readings after a copy because the links still point to the previous course. For instructors who encountered this issue after participating in the autumn pilot, the work around presented a significant amount of work and presented a potential barrier to future use.

In a recent update from Hypothes.is, the vendor reported that course copy works if an instructor created a Hypothes.is assignment using a URL or the PDF from Google Drive workflow. However, it does not work if an instructor created an assignment using a PDF from Canvas Files. Hypothes.is is investigating why this is the case and hopes to have a fix in place before fall quarter.

On the roadmap to be released before fall, Hypothes.is is planning small groups integration with Canvas as well as an integration with OneDrive.

If you would like more information about UW's pilot of the Hypothes.is integration in Canvas, please contact Robyn Foshee (rfoshee@uw.edu).