



Technology Pilot Report: Hypothesis

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Note: This report summarizes outcomes of a specific UBC pilot. Findings do not reflect broader or official UBC opinions about the learning technology evaluated.

UBC's Learning Technology Hub

Prepared by Letitia Englund (July 2023)

Background

What is Hypothesis?

Hypothesis is a tool for annotating course content in a shareable way

Hypothesis allows instructors, teaching assistants (TAs), and students to annotate online course content. These annotations can be made as highlights, comments, and tags on PDF files or webpages. Students can annotate privately or publicly and can share the public annotations with either the whole course or a course group.

Anyone can read and reply to the annotations that are visible to them¹. This interactivity can create contextualized discussions and question-and-answer moments in the content. It may also enable nearly² synchronous conversation, if people annotate at the same time.

Overall, shared annotation tools like Hypothesis are designed to help reading feel more active and social in a course. Annotations may also help teaching teams monitor where and how students are engaging—or struggling—with the content.

Why did the LT Hub pilot Hypothesis in 2022/23?

A gap exists at UBC for shared annotation tools that work with Canvas

The Learning Technology (LT) Hub has previously received requests from instructors wishing to use shared annotation tools in Canvas courses. But none of the tools currently available to UBC instructors work well with Canvas.

¹ Students are also able to turn off the annotations from others, if they need or want to engage with the content in a more focused, independent way.

² When annotating content with Hypothesis, a notification appears when new annotations are available from others. This notification must be clicked to load the new annotations.

CLAS has limited ways of working with Canvas

UBC centrally supports a homegrown tool called the Collaborative Learning Annotation System (CLAS). CLAS allows instructors, TAs, and students to annotate videos, images, and PDF files. As in Hypothesis, annotations in CLAS can be private or public, and anyone can read and reply to the annotations that others make visible.

But CLAS is limited in how it works with Canvas:

- Annotatable content must be added in CLAS before it can be embedded in Canvas.
- CLAS cannot use Canvas groups.
- CLAS cannot be set up as a Canvas assignment and cannot support grading using the Canvas SpeedGrader.

The free version of Hypothesis does not work with Canvas

While not centrally supported at UBC, there is an open-source, web-based version of Hypothesis that anyone can use for free. However, the free version does not work with tools such as Canvas. It also requires teaching teams and students to set up Hypothesis accounts.

The paid version of Hypothesis we piloted works tightly with Canvas

Hypothesis offers a paid version that overcomes the current limitations at UBC:

- Instructors, TAs, and students do not need to create Hypothesis accounts. They can access the tool through Canvas using their existing UBC CWL (Campus-Wide Login).
- Teaching teams can add annotatable content directly in Canvas.
- Annotatable content can be set up as a Canvas assignment (including for groups). Using an assignment allows grades to be assigned for each student's participation in the Canvas Gradebook, and grading can be done using the Canvas SpeedGrader³.



³ In the Canvas SpeedGrader, Hypothesis combines each student's annotations and replies for an assignment into a single view, so the teaching team can review participation one student at a time. The team can also enter a grade and/or written feedback the same as they would for any Canvas assignment.

Methodology

How did the LT Hub run the Hypothesis pilot?

Courses were recruited for a 2022/23 W2 & 2023 S pilot of Hypothesis

During the 2022/23 W1 term, the LT Hub put out a call for instructors to try Hypothesis. The call was open to all Faculties on both UBC campuses. Instructors who had previously reached out about Hypothesis were also contacted individually.

The LT Hub turned on Hypothesis for interested instructors in their Canvas course(s) for the W2 and/or S terms. Turning on Hypothesis gave instructors access to the tool when building a Canvas assignment or adding a module item⁴. Students then saw the Hypothesis annotation interface when they accessed that assignment or item.

The vendor offered training opportunities for instructors and staff

In early January, Hypothesis hosted a synchronous online demo of the tool. The demo was also recorded and shared asynchronously. Hypothesis had other support options available during the terms, including ongoing workshops, one-on-one pedagogical consultations, and [online documentation](#). These resources were shared with instructors.

As this pilot was small, the LT Hub did not develop UBC-specific public documentation. The LT Hub was available to answer questions via email, phone, or virtual drop-in.

How did the LT Hub evaluate the Hypothesis pilot?

Teaching teams and students gave feedback later in the terms

A student survey was open in the participating courses between March and June. The anonymous survey consisted of 9-10 questions, depending on the student's response

⁴ In either case, instructors could select "External Tool" and choose Hypothesis from the list of tools. Then they could select one PDF file or webpage as the content source for students to annotate.

(see [Appendix A](#) for the questions). The survey link was shared by willing instructors in their Canvas course(s).

Teaching team interviews were scheduled for each course between February and June. The interviews consisted of 14 questions (see [Appendix A](#) for the questions) that were discussed⁵ in 45-minute sessions with the interviewer.

Basic Hypothesis statistics were collected at the end of the pilot

On the back end of Hypothesis, the vendor can see basic statistics, including how many annotations and replies have been made per course. These statistics were extracted in late June as a rough indication of engagement in each course.



Findings

Who participated in evaluating the Hypothesis pilot?

Eight instructors wanted to pilot the paid version of Hypothesis; not all did

Eight instructors—representing ten courses—planned to participate in the pilot. Six instructors were from the Faculty of Arts, one from the Faculty of Land and Food Systems, and one from the Faculty of Science (UBC Okanagan).

For reasons that will be described later in this report, only half of these instructors were ultimately able to use the paid version of Hypothesis for the full term. Two ended up using the free version, one was not able to use either version, and one used the paid version initially but stopped due to technical challenges.

⁵ One instructor and one TA opted out of discussion and sent written feedback for the questions instead.

Contexts tended toward higher-level and smaller-sized courses

Instructor	Faculty & Course(s)	Students	Annotations & Replies	Approach
1	Arts 4th-year undergraduate	~20 enrolled	1,302 annotations 37 replies	Annotations available for all course readings in Canvas
2	Arts 4th-year undergraduate	~25 enrolled	n/a*	Annotations available outside of Canvas on specific course-related websites
3	Arts 3rd-year undergraduate	~60 enrolled	352 annotations 0 replies	Annotations available for certain course readings in Canvas using groups
4	Arts 2 x 3rd-year undergraduate	~40 & 13 enrolled	304 & 156 annotations 118 & 89 replies	Annotations available for most course readings in Canvas and for two assignments
5	Land & Food Systems 2 x 1st-year undergraduate	~50 & 30 enrolled	95 & 44 annotations 3 & 4 replies	Annotations available for certain course readings in Canvas
6	Science 3rd-year undergraduate	~186 enrolled	n/a*	Annotations available for content on external course website
7	Arts Cross-listed 4th-level undergraduate / 1st-year graduate	~20 enrolled	n/a**	n/a**
8	Arts 3rd-year undergraduate	~43 enrolled	724 annotations 83 replies	Annotations available on one course reading in Canvas per week

* instructors used free version of Hypothesis

** Hypothesis could not support the use case

Students provided feedback only from Arts courses

Of the 53 students who took the survey, all came from Arts courses. This outcome is largely the result of other teaching teams not feeling comfortable with sharing the survey, due to limited and/or frustrating experiences with the tool.

What did we learn about Hypothesis from teaching teams?

Teaching team motivations for using a shared annotation tool

Increase student engagement with the content

Several instructors wanted the students to engage more with the content before coming to class. Annotating was a way of slowing the students down to read more closely—*“the process of mark-making is an engagement that goes beyond”* what happens in regular reading. Reading the annotations of others was also part of increasing engagement, as *“it’s helpful for students to see how other people are understanding materials”* as they go along.

Encourage more student interaction with peers

Several instructors also wanted to increase the interactions between students in the course. Shared annotations were an additional place where students could ask questions, give opinions, or otherwise *“get into conversation with each other”*—especially those students who might be quieter in class. The annotations could also help normalize content discussions: when students have already shared thoughts online, *“it helps later on in the classroom for students to share ideas”* in person.

Check and address student understanding of content before class

Some instructors wanted another means of checking how well students understood the content. Shared annotations let instructors ask the students contextual questions and see where the students had asked questions themselves. Openly raising questions in the content also allowed anyone in the course to answer. And addressing basic questions outside of class—whether via the teaching team or other students—could

free up more class time to “deal with more interesting things than ‘what do we call this?’”.

Re-purpose open content for academic use

One instructor wanted to use non-academic webpages as course content, but needed a way to contextualize and update that content first. This instructor saw annotations as the best route to add an academic layer to “interpret that [content] for students and help them learn”.

Teaching team response to Hypothesis was more positive than not

Of the seven teaching teams who felt that they had enough experience with Hypothesis to rate it, most reported a ‘somewhat positive’ or ‘very positive’ experience. Two reported a ‘somewhat negative’ experience; one was an instructor who had to stop using Hypothesis partway through the term.

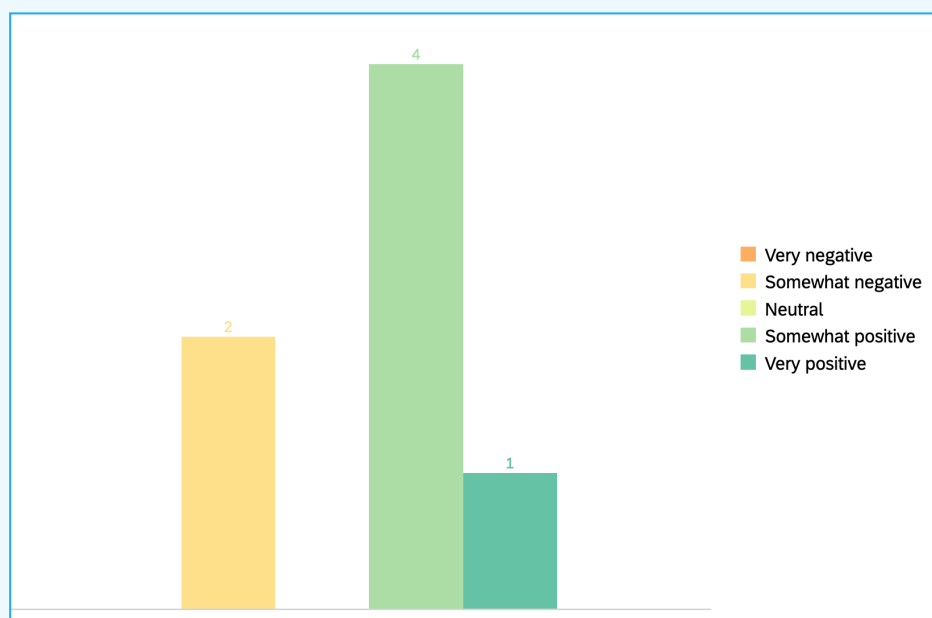


Chart 1: Responses to Q6 ‘Please rate your overall experience with Hypothesis.’ (N=7)

Note that these ratings include teaching team experiences with the paid and free versions of Hypothesis. If we remove responses from the teams who used the free version, the ‘somewhat positive’ bar would shrink by two, creating more of a split.

Instructors and TAs also found Hypothesis generally easy to use

Teaching teams largely found Hypothesis easy to use; about half experienced a slight learning curve. By the end of term, all but one person found Hypothesis ‘very easy to use’. Many appreciated its streamlined approach both for themselves and their students—*“I think the simplicity of the Hypothesis interface is brilliant”*.

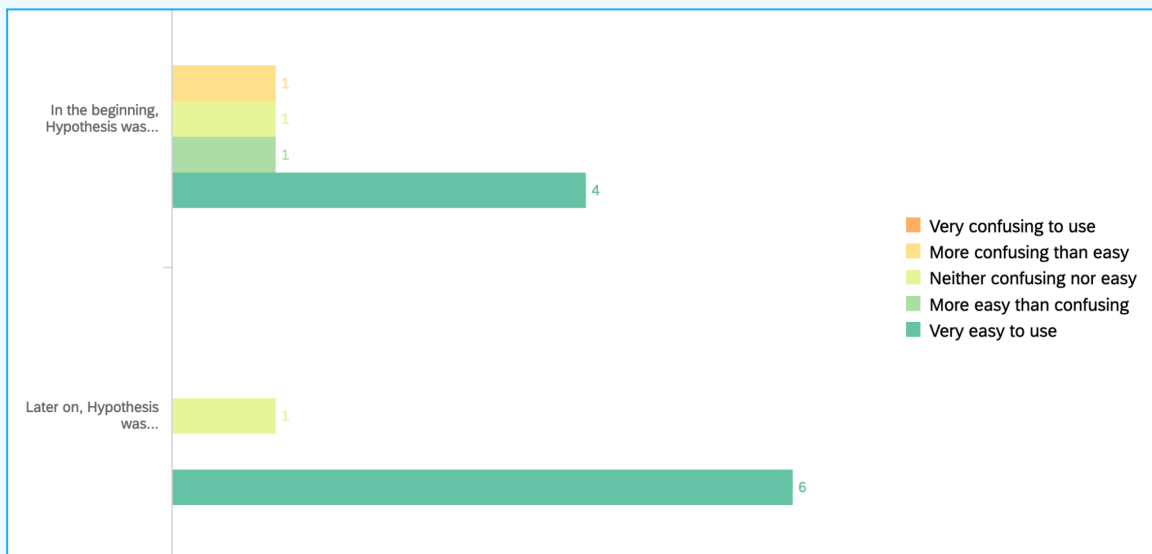


Chart 2: Responses to Q10 ‘How confusing or easy was Hypothesis to use at the following points?’ (N=7)

Benefits teaching teams reported in using Hypothesis

Furthered students learning with each other

Several teaching teams felt that Hypothesis furthered students learning together. The way that annotations were contextualized gave the students *“a better way to share ideas”*. Rather than having to reference part of the content, the students could point right to it. Then, by reading each other’s questions and opinions, students could engage in peer learning, *“building on ideas and responding to each other”* in the text. This interaction in turn helped *“de-stigmatize admitting when they don't know something”*.

Two teams also noted that interactions went beyond the typical engagement that happened in course discussion boards. With annotations, students seemed to have more entry points into discussion than could be offered through a series of topics or threads; they could more easily *“interact with each other on the document itself”*.

Supported students connecting with each other

Several teaching teams also felt that Hypothesis fostered better connections between students in the course. Having a space for shared annotation *“expands on class time in a very social way”* and *“brings out conversations there otherwise wouldn’t be time to have”*. Often conversations were course-related—for example, a student posting a link to related content. But sometimes *“comments were silly”* in a good way that brought the class together.

One instructor also appreciated the network effect, whereby shared annotation *“lets students of like minds find each other”*. For some students, knowing that another person thinks the way that they do can not only be validating, but can extend the connection outside of the course. Another instructor noted that annotating in small groups *“allowed consistent bonding and exchange of ideas”* among those students.

Guided instruction in the course

Several teaching teams appreciated how the annotations provided a way of gathering ongoing student feedback. This feedback could guide approaches to the course, leading some instructors in response to

- directly edit and improve on the course content,
- address misunderstandings arising outside of class time, and/or
- decide what to talk about in the next class time—*“it was a good way to get a sense of ‘okay we need to address this in class’”*.

Some teaching teams also used annotations as contextual instruction, adding their own comments before the students did, as a way to emphasize or clarify points in the content. These proactive annotations addressed errors in a webpage or *“show[ed] the students what I hoped they would take from each reading”*.

Worked relatively well with Canvas, for those who used it that way

Five courses tried using the paid version of Hypothesis that works with Canvas. Of these, four teams discussed benefits of the two tools working tightly together:

- Students did not need to create Hypothesis accounts to participate.
- Students could engage with Hypothesis content directly in Canvas.
- Instructors did not have to provide as much technical support to students—for example, ensuring that they were using the right browser extension.

- Instructors could use Canvas groups to make group annotation assignments.
- Instructors could see and modify Hypothesis grades directly in Canvas.

However, challenges of how Hypothesis works with Canvas were also raised; these will be detailed in the next section.

Drawbacks teaching teams reported in using Hypothesis

Limited what kind of content could be annotated

At the time of writing, Hypothesis only allows annotations on PDF files and webpages. The PDF files also need to have selectable text, meaning that they are either created with a text-based application or scanned in a way that recognizes text (i.e., using Optical Character Recognition).

The paid version of Hypothesis further restricts each Canvas assignment or module item to one PDF file or webpage link. If instructors want students to annotate on multiple files or links (e.g., an entire website), they need to either

- create an equal number of assignments or items to match with each file/link, or
- manually combine the content from all the files/links into a single PDF.

These restrictions led to three courses not using the paid version of Hypothesis for this pilot. Two instructors wanted annotations available on multiple webpages, which the free version of Hypothesis could more easily support; the other wanted annotations available for images—to annotate musical scores—which neither version could support⁶.

Performed too unreliably for synchronous annotation in class

A couple of teaching teams wanted to use Hypothesis synchronously, as a class activity where students annotate together. Despite multiple attempts, neither course had success with this approach. The annotations did not work quickly enough for a real-time experience. Either students did not see the notification of new annotations, or they saw it and were “*having to refresh and refresh and refresh*” and wait for it to load⁷.

⁶ Another instructor also wanted to annotate images and ended up developing a workaround. The workaround involved putting invisible letters in the PDF with the image. However, the instructor felt that this process was cumbersome and created confusion with the students around how to select what they wanted.

⁷ It's possible that campus internet connections, student data plans, and/or student devices could have impacted this reported lag time. However, given the consistency of poor performance reported across multiple dates and courses, it is likely that the tool's responsiveness played at least a partial role.

One instructor stopped using Hypothesis entirely because *"the students were getting very frustrated"* with this lag time.

Another teaching team discussed similar frustration, even though they were not using Hypothesis synchronously. In this course, several students reported Hypothesis crashing each time they submitted an annotation. They would then have to reload the tool before being able to engage further.

Created inefficiencies with issues in the teaching team workflow

Teaching teams noted a few other issues with the Hypothesis workflow.

- **Bug with the Canvas SpeedGrader:** Two teams using Canvas to grade found that not every student post was tied to the assignment. This issue meant that the view presented in the Canvas SpeedGrader of each student's work was not always comprehensive⁸; the Hypothesis interface had to be used to review the work too.
- **Lack of good annotation management:** Given the lack of notification for new annotations, teaching teams and students repeatedly *"had to go back in and check"* content to see new student questions or replies. The instructor with the largest class also struggled without a way to mark public annotations as addressed and to moderate/remove any that were not constructive to the course.
- **Setup options in Canvas unclear:** Several teaching teams either did not realize or realized too late that they could set up Hypothesis in Canvas using items in a module⁹. These courses ended up using ungraded assignments to enable annotating some content, which was less ideal.

Could not address difficulty of encouraging authentic engagement

Although not an issue with Hypothesis, several teaching teams discussed challenges with getting students to buy in to using shared annotation. Most instructors did not give

⁸ The vendor suspected that the issue was caused by having multiple Hypothesis apps added to these Canvas courses. Upon further investigation, one of the courses was found to have multiple instances. The occurrence of multiple instances is less likely to happen if Hypothesis is enabled in Canvas at the campus rather than the course level.

⁹ It would likely be difficult for Hypothesis to change how these options appear in Canvas, as the workflow there is standard for external tools. The issue would probably need to be addressed more on the training side.

marks for Hypothesis work¹⁰, hoping that students would optionally engage. In some cases, this approach led to less engagement. Some instructors did give marks to try to boost engagement—“*the encouragement of having some kind of a grade with it helped*”. But more required annotations could result in less meaningful comments.

What did we learn about Hypothesis from students?

Student response to Hypothesis was overall positive

Of those students who responded, 85% rated their experience as ‘very positive’ or somewhat positive’. Only 2% chose ‘somewhat negative’; no students chose ‘very negative’.

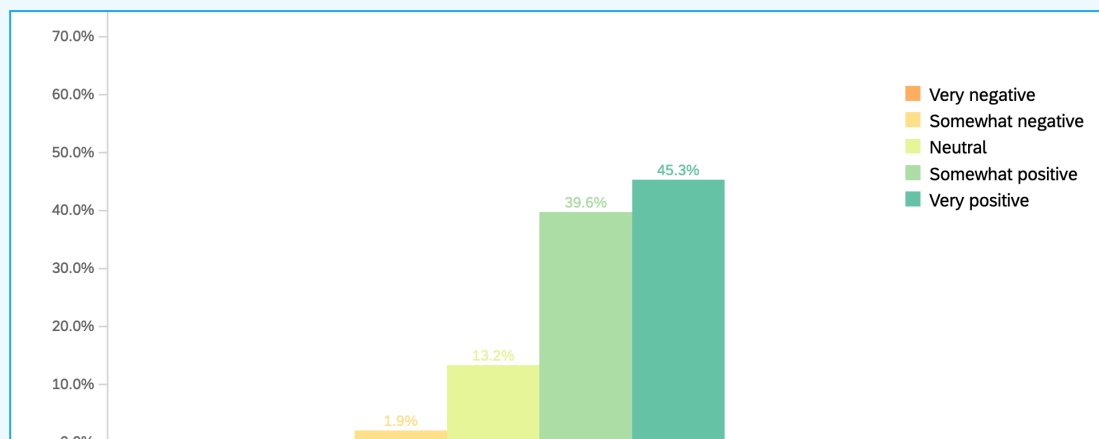


Chart 3: Responses to Q2 ‘Please rate your overall experience with Hypothesis in this course.’ (N=53)

This result also aligned with students’ majority agreement with many of the statements in Q7 (see [Appendix B](#) for chart):

- 92% agreed Hypothesis was useful in the course
- 86% agreed Hypothesis helped them feel more connected with classmates
- 82% agreed Hypothesis helped them understand the course content better

¹⁰ Several instructors did not require Hypothesis engagement specifically, but allowed it to count towards the student's general participation score for the course.

Like the teaching teams, students found Hypothesis easy to use

Students noted a learning curve to Hypothesis initially. But by the end of term, no students felt that Hypothesis was confusing to use.

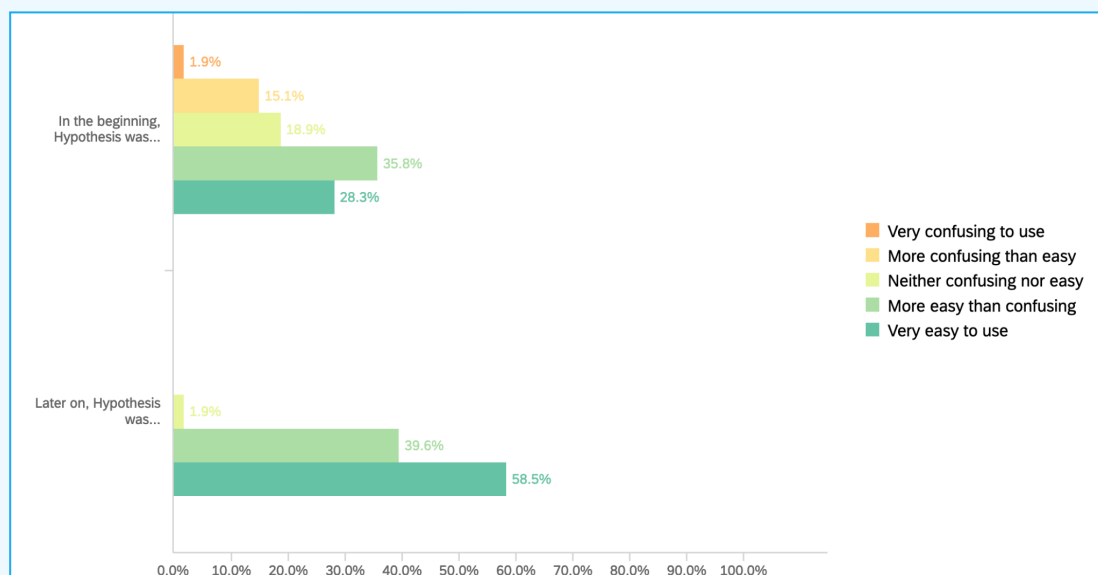


Chart 4: Responses to Q5 ‘How confusing or easy was Hypothesis to use at the following points?’ (N=53)

Benefits students reported in using Hypothesis

Provided interactivity that aided engagement with content and peers

Many students commented positively on the interactivity that Hypothesis afforded them (see [Appendix B](#) for chart). In open-ended comments, they highlighted four main benefits:

- **Being able to annotate for themselves:** Students liked the option to create personal annotations on the content, “*making it easier for me to express my thoughts directly on a work*”.
- **Engaging with peers:** Students appreciated the ability to give and receive replies on public annotations. Several students described the tool as supporting collaboration—“*collectively [mobilizing] the class to engage with material*”.
- **Seeing what peers are thinking:** Students enjoyed simply seeing what their peers thought about the content, sometimes directly related to the topic and sometimes

more tangential. It was nice for some to see things that were *“interesting and relevant, but not necessarily worth interrupting the flow of class to talk about”*.

- **Learning from peers:** A few students specifically noted a learning benefit: *“being able to see annotations from classmates [helped] my understanding of the text”*, particularly when it was difficult text to parse alone.

Offered an overall positive user experience: easy, convenient, fun

Many students described their experience with the tool in positive terms—*“it was easy to use/understand the [controls]”* and a *“very efficient and convenient way of doing assignments”*. Most students viewed the highlighting as an intuitive way to leave and view annotations (when it worked as expected). A couple even described it as *“fun”*.

Drawbacks students reported in using Hypothesis

Presented technical challenges that decreased engagement

About 28% of the students who responded (see [Appendix B](#) for chart) seconded what the teaching teams reported. At times, Hypothesis seemed to perform poorly:

- loading slowly *“which hinders collaborative efforts”*,
- not always reliably saving annotations, and
- crashing after submitting annotations—*“whenever I would post an annotation the site would stop working and then I would have to relaunch the site again in order to add additional annotations”*.

Used some inefficient designs that at times slowed engagement

Some students also had complaints about how Hypothesis worked with heavier use. Specifically, they did not like having to *“constantly refresh to see updates”* and how *“it became confusing when multiple people highlighted the same sections of a reading”*.

Several students also shared struggles of using Hypothesis on smaller screens, where content was reportedly hard to navigate, hard to read, or not always loading properly.

Missed a few features that students would have found useful

Some students had suggestions for specific features that would have made their experience better. These suggestions included being able to:

- annotate images,
- receive notification of annotation replies¹¹,
- annotate over multiple pages, and
- download all annotations (their own and/or others') to keep for future review.



Recommendations

What could we do to improve Hypothesis use in the future?

In summary, the teaching team and student response to Hypothesis was positive overall. Many teams felt that Hypothesis furthered students learning with each other, supported students connecting with each other, and helped guide instruction in the course. Those who were able to use the paid version of Hypothesis also appreciated the tighter connection with Canvas. Many students reported that the interactivity improved their engagement with content and peers and that they liked the overall user experience.

However, half the teaching teams struggled to use the paid version of Hypothesis for a full term. Some had to pivot because the paid version limited what and how content could be annotated in Canvas; others found it performed too unreliably for synchronous annotation in class. Many students likewise noted technical challenges that decreased their engagement. Some felt that design choices at times also slowed engagement.

Should UBC move forward with adopting the paid version of Hypothesis as a centrally supported tool, the following recommendations may ease some of these challenges.

1) Share technical issues and feature requests with Hypothesis

Hypothesis is a tool in active development, and the support team for UBC has been eager to hear feedback from the pilot. Sharing the outcomes with the team may help them investigate or improve on areas where instructors and students reported challenges.

¹¹ At the time of writing, the first two requests in this list were already on [Hypothesis's product release roadmap](#).

2) Create UBC guides to navigate around possible issues

If moving forward with Hypothesis, the LT Hub could develop its standard UBC instructor and student guides for the tool, with input from the vendor.

The instructor guide could touch on challenge areas:

- clearly stating annotation limitations;
- clarifying ways of setting up annotatable content in Canvas;
- encouraging tool use in smaller groups and on smaller PDF file sizes (to potentially improve performance); and
- suggesting strategies for managing annotations and encouraging authentic engagement.

The student guide could include tips for optimizing performance:

- specifying which browsers to use (Chrome, Edge, Firefox, Safari),
- recommending the use of desktop or laptop computers,
- suggesting—for those needing or wanting to use smaller screens—to access course content through the Canvas app,
- encouraging selection of longer phrases rather than single words when annotating, and
- noting that getting timed out of Canvas will impact any open Hypothesis tabs or windows.

3) Utilize Hypothesis resources and support

Hypothesis has developed pedagogical resources and training opportunities for instructors using shared annotation. It could be helpful to reference these in any new UBC guides, as well as in responding to future LT Hub requests for setting up Hypothesis.

Additionally, encouraging teaching teams to reach out directly to Hypothesis for support when needed could be a more efficient way to tackle real-time challenges that may otherwise be difficult for the LT Hub to troubleshoot.



Appendices

Appendix A: Hypothesis Pilot Instruments

A.1) Student survey questions

1. Which course would you like to give feedback on for the 2022/23 Winter Term 2? *
 - [dropdown of courses]
2. Please rate your overall experience with Hypothesis in this course. *
 - Very negative
 - Somewhat negative
 - Neutral
 - Somewhat positive
 - Very positive
3. What, if anything, did you like about using Hypothesis in this course?
4. What, if anything, did you NOT like about using Hypothesis in this course?
5. How confusing or easy was Hypothesis to use at the following points? *
 - In the beginning, Hypothesis was...
 - Very confusing to use
 - More confusing than easy
 - Neither confusing nor easy
 - More easy than confusing
 - Very easy to use
 - Later on, Hypothesis was...
 - Very confusing to use
 - More confusing than easy
 - Neither confusing nor easy
 - More easy than confusing
 - Very easy to use
6. If you used different devices to access Hypothesis, which statements apply? If you didn't use different devices, go ahead to the next question.
 - All devices offered a similar experience
 - Smaller screens (e.g., smartphone) presented extra challenges
 - Medium screens (e.g., tablet) presented extra challenges
 - Larger screens (e.g., desktop computers) presented extra challenges

7. [If any device challenges] What were the extra challenges you encountered with different devices?
8. Please rate how much you disagree or agree with the following statements. *
- Hypothesis was useful to me in this course
 - Strongly disagree
 - Disagree
 - Agree
 - Strongly agree
 - Hypothesis helped me understand the course content better
 - Strongly disagree
 - Disagree
 - Agree
 - Strongly agree
 - Hypothesis helped me feel more connected with the course instructor
 - Strongly disagree
 - Disagree
 - Agree
 - Strongly agree
 - Hypothesis helped me feel more connected with classmates in the course
 - Strongly disagree
 - Disagree
 - Agree
 - Strongly agree
 - Hypothesis ran with minimal glitches or errors
 - Strongly disagree
 - Disagree
 - Agree
 - Strongly agree
 - I would recommend Hypothesis be used in this course in the future
 - Strongly disagree
 - Disagree
 - Agree
 - Strongly agree
 - I would recommend Hypothesis be used in other courses at UBC
 - Strongly disagree
 - Disagree
 - Agree
 - Strongly agree
9. If this technology were a person, what would you say to it after your interactions together this term? *

10. Is there any other feedback you'd like to provide about using Hypothesis? Or anything other students should know about using it well?

A.2) Instructor interview questions

1. Which course(s) did you pilot Hypothesis in, and what was the enrollment in each? *
2. Why did you want to try Hypothesis? *
3. How did you use Hypothesis (i.e., what did you have students do in it)? *
4. How did you train students (pedagogically and/or technically) to use Hypothesis? *
5. How did you grade students or otherwise account for activities in Hypothesis? *
6. Please rate your overall experience with Hypothesis. *
 - Very negative
 - Somewhat negative
 - Neutral
 - Somewhat
 - Positive
 - Very positive
7. What, if any, were the benefits of using Hypothesis?
8. What, if any, were the drawbacks of using Hypothesis?
9. Was there anything you couldn't do with Hypothesis but wanted to? Please describe.
10. How confusing or easy was Hypothesis to use at the following points? *
 - In the beginning, Hypothesis was...
 - Very confusing to use
 - More confusing than easy
 - Neither confusing nor easy
 - More easy than confusing
 - Very easy to use
 - Later on, Hypothesis was...
 - Very confusing to use
 - More confusing than easy
 - Neither confusing nor easy
 - More easy than confusing
 - Very easy to use
11. Please rate how much you disagree or agree with the following statements. *
 - Hypothesis's capabilities met my requirements for this course
 - (not sure)

- Strongly disagree
 - Disagree
 - Agree
 - Strongly agree
- Hypothesis let me achieve something not possible with other available tools
 - (not sure)
 - Strongly disagree
 - Disagree
 - Agree
 - Strongly agree
- Hypothesis ran with minimal glitches or errors
 - (not sure)
 - Strongly disagree
 - Disagree
 - Agree
 - Strongly agree
- Hypothesis required minimal technical support to use
 - (not sure)
 - Strongly disagree
 - Disagree
 - Agree
 - Strongly agree
- I would use Hypothesis in my future courses
 - (not sure)
 - Strongly disagree
 - Disagree
 - Agree
 - Strongly agree
- I would recommend Hypothesis to my colleagues
 - (not sure)
 - Strongly disagree
 - Disagree
 - Agree
 - Strongly agree

12. If you have comments about your choices above, please share.

13. How useful was any training or support you used for Hypothesis? *

- The Hypothesis website
 - (n/a, did not use)
 - Not useful at all
 - Slightly useful

- Moderately useful
 - Very useful
- Hypothesis one-on-one support
 - (n/a, did not use)
 - Not useful at all
 - Slightly useful
 - Moderately useful
 - Very useful
- Help from my UBC Instructional Support Unit
 - (n/a, did not use)
 - Not useful at all
 - Slightly useful
 - Moderately useful
 - Very useful
- Help from UBC LT Hub support
 - (n/a, did not use)
 - Not useful at all
 - Slightly useful
 - Moderately useful
 - Very useful
- Other: _____
 - (n/a, did not use)
 - Not useful at all
 - Slightly useful
 - Moderately useful
 - Very useful

14. Is there any other feedback you'd like to provide about using Hypothesis? Or anything other instructors should know about using it effectively?

Appendix B: Additional Hypothesis Pilot Data

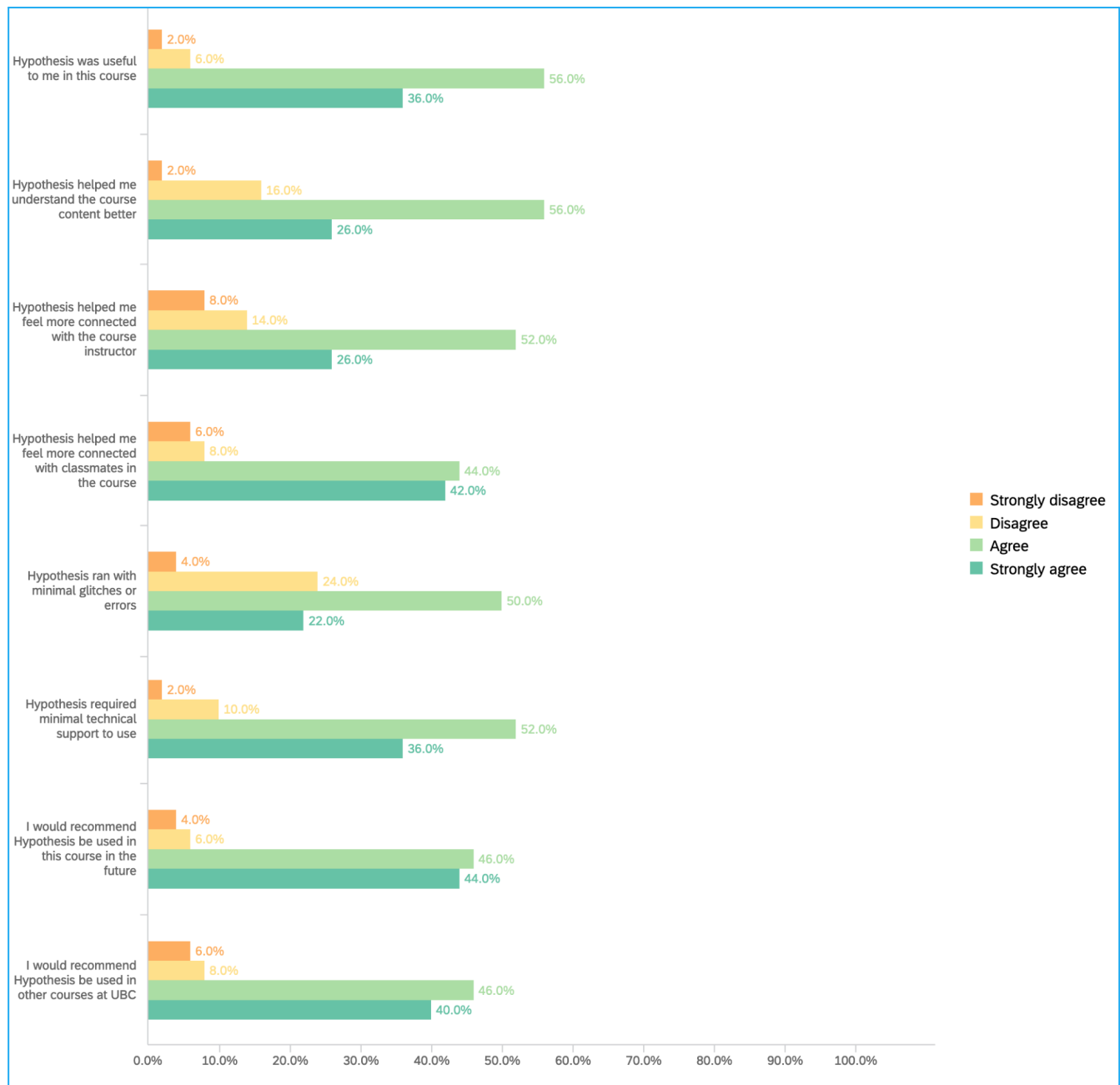


Chart B.1: Student responses to Q8 'Please rate how much you disagree or agree with the following statements.' (N=50)

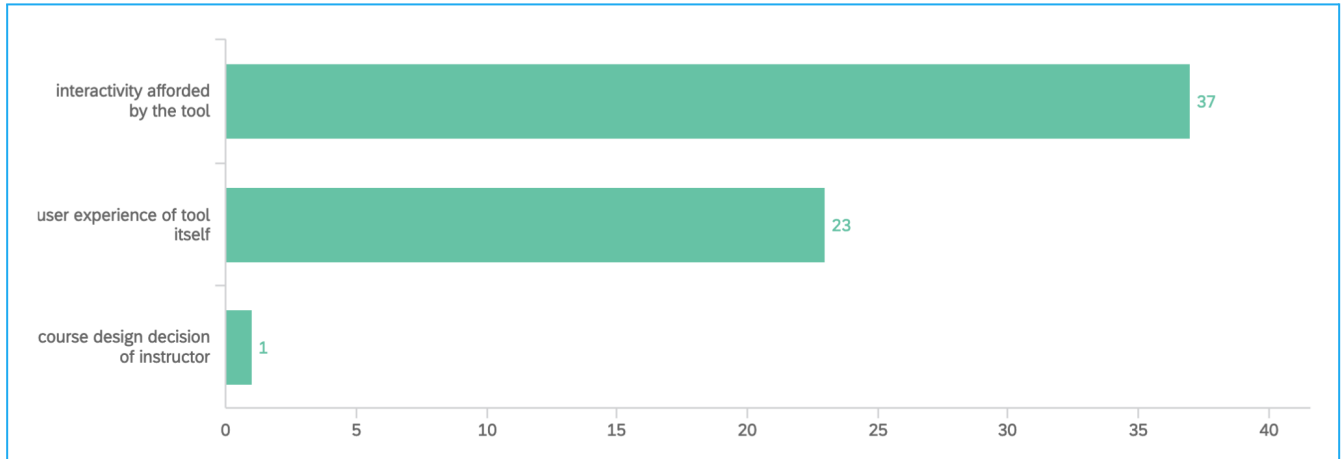


Chart B.2: Categorization of student responses to Q3 ‘What, if anything, did you like about using Hypothesis in this course?’ (N=44)

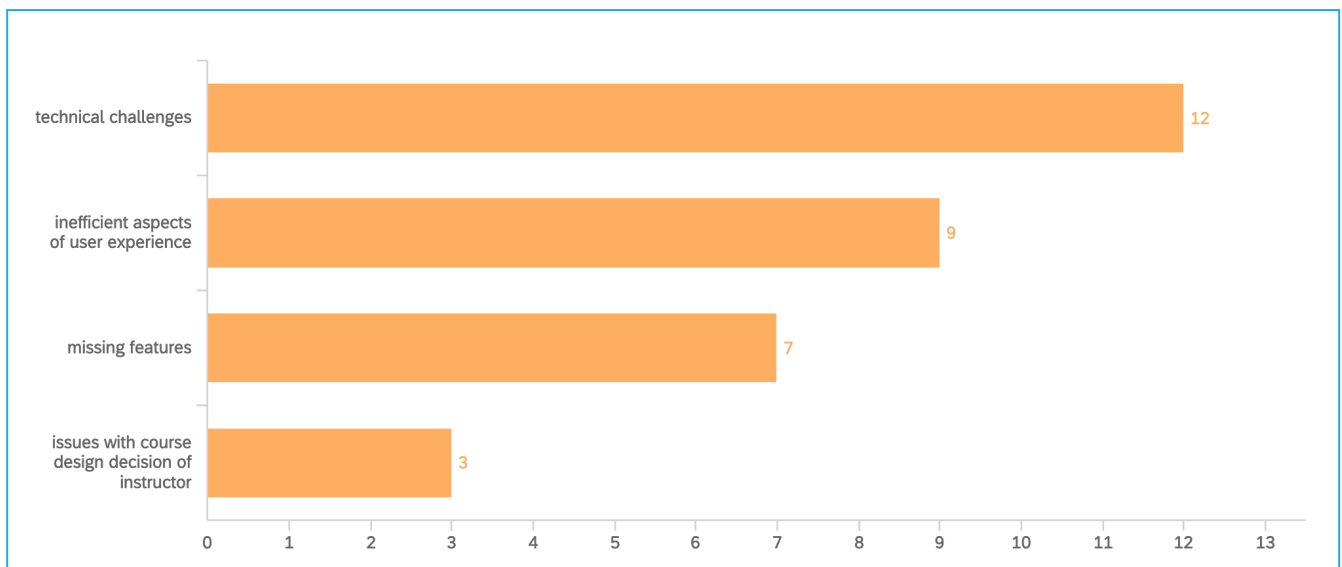


Chart B.3: Categorization of student responses to Q4 ‘What, if anything, did you NOT like about using Hypothesis in this course?’ (N=34)

