

## **Collaborative Textbook Policy Brief**

The Collaborative Textbook is a tool that intends to foster community and collaboration around a textbook by providing multiple means of engagement and representation. A consistent problem with how students use textbooks is that they are often read and learned from in isolation. While this is not a problem for all students, some students who find themselves struggling with material after reading a textbook may never find their questions explicitly answered. This is often because students are too shy to share what they are confused about, and because of this the teacher will never know.

With the collaborative textbook we hope to fix this and foster a community of connected learning. It is an online textbook that is interconnected with a student and teacher dashboard. The online textbook is created using a Qualtrics form format with highlight question types. The types of highlights students can do are “Confused”, “Important”, “Interesting”, and “Unimportant”. However, teachers can change these highlights very easily in the forms if they would like to focus on different aspects of student learning. By putting the textbook in this format all student highlights are saved. This saved data is very valuable information and can be used in many different ways. One way it can be used is to create a student and teacher dashboard which can both facilitate a community of learning.

The teacher dashboard will be organized by dropdown menus. There will be dropdown menus that correspond to different “sections”. It is my intention that teachers can decide how these sections will be broken down. For example, a teacher could decide that sections are textbook sections and/or class sections. Different teachers may desire different formats

depending on their class size and reading materials. Giving the teachers as much power over the product as possible will make it as powerful as it can be.

After deciding how these sections are broken down, they will be given the ability to have better, tailored lessons. They will see what students in their classes are confused about, and by seeing this they can modify their lessons as necessary to focus on topics where a large chunk of population is struggling. It is my intention that the final product of this prototype will show teachers the most densely highlighted parts of the textbook for all types of highlights. This would be especially helpful for teachers with especially large numbers of students. A teacher with over 200 students will obviously not be able to go through each individual student; however, with a tool that shows what most of the class is confused about, they can still tailor their lessons to help clear up this lack of clarity. They can also still go through certain students who are struggling in the class to work on material with students who potentially need more help.

The student dashboard will be very similar to the teacher dashboard; however, one major difference is that students will not be able to see what certain peers highlighted within the textbook. By keeping this data anonymous in the student dashboard version, it will be assured that students will not be embarrassed that they are confused by certain topics. As one of the major uses of this community of learning will be that all students' questions have potential to be answered, we would not want the risk of any students to be scared to admit any confusion.

With the student dashboard, students will have a lot of notes and power directly at their fingertips. Like with the teacher dashboard, in my final version of the prototype I would like the student dashboard to show the most highlighted parts of the text for each section and by each type of highlight. With this data, students can learn from their peers. They will be able to see what other students marked as "Important" and "Interesting". If it seems that many students

marked something as “Important” and they did not pay any attention to that part of the material they will know to spend more time on that material. By gathering data from many students’ perspectives, they will be assured that they will not miss anything important. This also will be incredibly useful for students who struggle with reading due to disability. This tool would show them all the most important parts of the textbook from student perspectives, allowing them to narrow in on the most crucial aspects of the material.

I have gone over why students and teachers will benefit from this tool and how this will create a community of learning about the textbook, which is often plagued as a tool of isolated learning. However, besides just students and teachers, this Collaborative Textbook tool could potentially help textbook companies and authors with the incredible amounts of data they will receive.

Every time a student highlights that data is sent to the form dashboard. I will have it so that it is transmitted automatically to the student and teacher dashboards; however, a dashboard could be created for textbook companies that will display information on how students feel about certain parts of the textbook. Imagine a heatmap of student highlights in the textbook. Authors and companies will be able to see chunks of areas where students are especially “Confused” or believe that certain areas are “Unimportant”. With this information, they would be getting direct feedback from students on where their textbook is useful, and students are highlights things as “Important” or “Clear” (could be added in for textbook company purposes). One EdTech expert even mentioned during my presentation, “textbook companies would definitely love this tool as feedback often has to go through many middle men and is hard to be acted on.” With this tool, the feedback would be direct and from the students who are the main users of the textbook. This would be an incredibly useful tool for companies and authors, and it would not be difficult to

implement. Over time, they could point out areas that students typically mark as “Important” or “Difficult” to help out other students when reading this textbook.

To conclude, the Collaborative Textbook tool will be useful for students and teachers in creating a community of learning. Teachers can tailor their lessons for certain student needs, and students will be able to learn from each other and look at material in multiple perspectives.

Finally, this tool can be used by textbook companies to make improves as they can receive data directly from all student users of the tool.

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Spring 2019

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