

## Initiating and Maintaining Collaboration in the HyFlex Environment

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## GIFTS: Initiating and Maintaining Collaboration in the HyFlex Environment

HyFlex teaching requires instructors to replace all in-class collaborative and interactive activities with ones that can be completed and shared in an on-line collaborative environment. Examples of often used software that make material and activities accessible to all students are Zoom, Microsoft Teams, Microsoft Forms, and Google Slides. For example, Zoom, as many have experienced, can be used to bring students together in a virtual classroom, break students into work groups using the imbedded breakout rooms, and allow students to work together using a virtual white board. Google Slides can be used, as a substitute for or in addition to the Zoom whiteboard, to present and store individual and collaborative responses to class activities.

These tools are helpful in initiating collaboration in the classroom. However, their roles are limited due to their static setting or limited functionality. Due to the Covid19 pandemic, more free or low-cost accessible collaborative on-line apps and software packages are now available. These packages not only aid initiating collaboration through class activities but allow a broad range of activity variation and continued activity access.

One such package is Miro. Miro is a virtual whiteboard with selections for freehand sketching, post it notes, block diagramming, and document and figure insertion. It can be used privately or shared with others for collaborative sessions. Miro also has embedded templates useful for collaborations. One example is the Empathy Map template which is useful for exercises that ask the students to consider a situation from the point of view of a customer or user. In Miro, and most other collaborative whiteboard packages, instructors own the whiteboards, so they can watch and comment on student progression. Miro is app based so it is accessible to students through a variety of devices such as cell phones and tablets.

Other established collaboration software packages include Google Jamboard, Lucid Spark, and Conceptboard. Though these packages are similar – they all provide collaboration whiteboards – they each have their own set of features. For example, Google Jamboard is purely an online collaborative whiteboard. It is especially easy for students and instructors to access. Lucid Spark has much functionality including templates and breakout boards. Conceptboard has less functionality, but it allows students to chat as they work together on the board.

The author used the collaboration boards in both freshmen and upper-level courses. Experimentation showed that they are effective for a variety of collaborative and individual activities prior to, during, and following class meeting times. Before selecting a board, however, the instructor should determine the importance of the (1) size of canvas, (2) collaboration features, (3) file attaching features, (4) presentation options, (5) mobile device accessibility, and (6) asynchronous use, for their instructional needs. Student reaction to the boards should also be considered. Since some students' first reactions are to experiment with the board's functionality, it may be necessary to select a board that includes locking features. It may also be beneficial to design an initial activity that encourages investigations of board features. Although the freshman level students most frequently amused themselves with board features, they greatly benefited from the collaboration experiences because it helped them establish student network connections they lacked.