

FACE TO FACE Online Education

A BETTER WAY TO TEACH, PRESENT AND COMMUNICATE

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TWO-WAY Interactive communication tools are important for future online education. Current digital tools applicable for online education are either not tailored for communication between teacher and students or lack the possibility of a mutual eye contact and seamless integration of handwriting and third party applications. The proposed tool “Teach Us” aims to be a robust, relatively simple application dedicated to interactive communication between either a teacher and a single student, or a group of students at different locations.

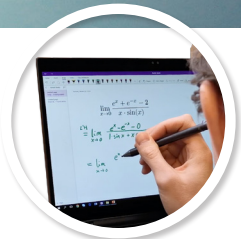
MULTIPLE Software Display IN FRONT

CONTENTS from different digital software will be integrated with the camera feed on a layered digital canvas. The CPU load on the computer does not increase significantly since components from different software are mirrored, and not built into the application.



REAL-TIME Interactive ON THE SAME CANVAS

BOTH the teacher and students can write on the same canvas during the live session. Contents will appear in front and at the same window as the teacher. It engages students to be a more active part during the session.



Live Streaming

SIMPLE way of live streaming. Stream the same way as with a regular webcam. You will be all set for streaming by choosing “Teach Us” as the camera source in your video conference tool. It won’t require any streaming key or other advanced settings. It can apply all the software or platforms that support webcam sources. Some examples of such software can be Skype, Zoom, Hangouts, etc. Pick the medium of your choice that give you best quality and least latency.

The tool can also be applied as a video recording tool if necessary.

Content In Front

CONTENTS will appear in front of the presenter within the same window. It increases the dynamic engagement between the presenter and the content. Research shows first person perspective improves learning. The layered transparent design allows displaying the teacher behind the visual objects used for various explanations, realizing a more engaging teaching environment for the students compared to just watching the teacher in a separate window.

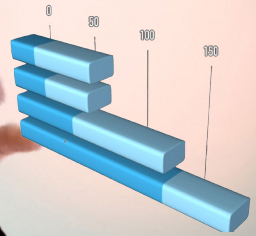
Conclusions

“TEACH US” is a digital tool for online interactive teaching where the teacher plays an active part in presenting the material. First-person perspective of the presenter and the interactive design of the planned tool “Teach Us” are anticipated to improve students’ learning experiences. A preliminary version of “Teach Us” has already been tested on a small group of calculus course students during preparation to the exam period in 2018. The feedback was very positive. It will be further tested on a military officer school class as a part of the online education course offered by our university in 2019.



$$\lim_{x \rightarrow 0} \frac{e^x + e^{-x} - 2}{x \cdot \sin(x)}$$

$$\stackrel{L'H}{=} \lim_{x \rightarrow 0} \frac{e^x - e^{-x} - 0}{1 \cdot \sin x + x \cdot \cos x}$$



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