

Hybrid learning theatre

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Abstract

On the 31st of August 2020 the HLT was launched. The comfortable sofas, two large screens, professional lighting, sound and three cameras, form the perfect mixture for the ultimate learning experience. The hybrid classroom allows 13 on-site students, 1500+ students online, and includes a 4.5×2.5m ‘Zoom Wall’, where 100 participants can be projected on the screen for real-time interaction. The set-up and technology enable active participation, in-class discussions, and therefore gives students the opportunity to benefit from an engaging learning experience.

1 Background and context

As a result of the changing situation in education, the Hybrid Learning Theatre (HLT) was set-up. The plan for constructing this 10x10m² hybrid learning space was initiated by a few lecturers that used to give their lectures in large theatres in Amsterdam. When Covid-19 happened, something had to change.

The plan was easily and quickly set-up, by cooperating with some external parties and working with a tight timeline. In June 2020, the initial conversations started, and on the 31st of August 2020 the HLT was launched. The comfortable sofas, two large screens, professional lighting, sound and three cameras, form the perfect mixture for the ultimate learning experience. The hybrid classroom allows 13 on-site students, 1500+ students online, and includes a 4.5×2.5m ‘Zoom Wall’, where 100 participants can be projected on the screen for real-time interaction. The set-up and technology enable active participation, in-class discussions, and therefore gives students the opportunity to benefit from an engaging learning experience, regardless of their geographical location.

2 Features of the space

The quality and experience of this type of education held in the HLT is dependent on several important factors; video, lighting, audio, and (didactical) atmosphere. Additionally, the location contributes to the complete experience; an old lecture hall, transformed into an industrial theatre with a cozy, welcoming vibe (see Figures 1-3).



Figure 1: Hybrid Learning Theatre



Figure 2: Hybrid Learning Theatre furniture

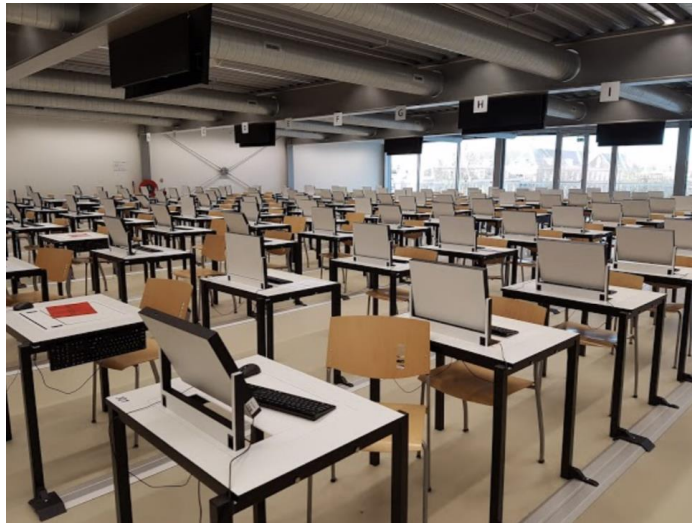


Figure 3: An old exam room transformed

The new type of hybrid/online education that we face nowadays requires another level of attention from students, and this can be facilitated by creating a more dynamic, visually attractive view. By making several visual shots, a lecture/seminar/Q&A session is visually less monotonous, and it is easier for students to widen their attention span.

By using a mixer and several video images, UvA switches between several shots; these are sent to the Zoom output. This system can easily be applied to any online conference tool (Zoom/Teams/Skype etc.). By switching live through different shots, we see the presentation, a front-shot of the lecturer looking the students in the eyes, a side-shot of the lecturer, and a shot where all live students are filmed (with consent) while asking questions. This creates a more intimate image, enhancing a sense of belonging – as if the students are still ‘present’, even while watching from home.

Every chair works with a dynamic microphone that filters out background noise. As soon as the student asks a question and the microphone detects sound, it will start broadcasting the sound. This creates a higher quality audio experience for the students at home.

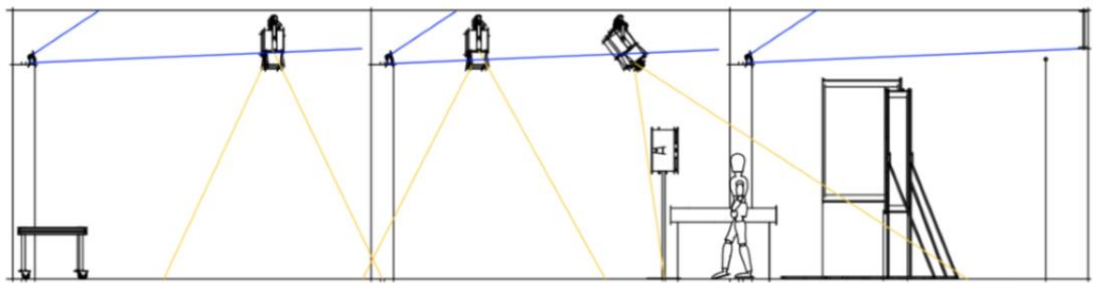


Figure 4: Top and Front Lighting Design

As can be seen in Figure 4 (Top and Front Lighting Design), theatre lighting is used with LED-lighting in order to create a more welcoming, accessible, and open atmosphere. It is the combination of the space, audio-visual technology, and content that enables this new type of teaching and learning for lecturers and students. Through this set-up, lecturers are encouraged and motivated to enhance interaction and apply different didactical methods (instruction, collaboration, discussion, and socialisation) that stimulate active learning.

3 Impact

This project aims to intensify the learning experience through facilitating an interactive and engaging hybrid setting, that enables both valuable peer-to-peer as student-lecturer contact. To evaluate the success of the Hybrid Learning Theatre a survey was conducted among students and lecturers.

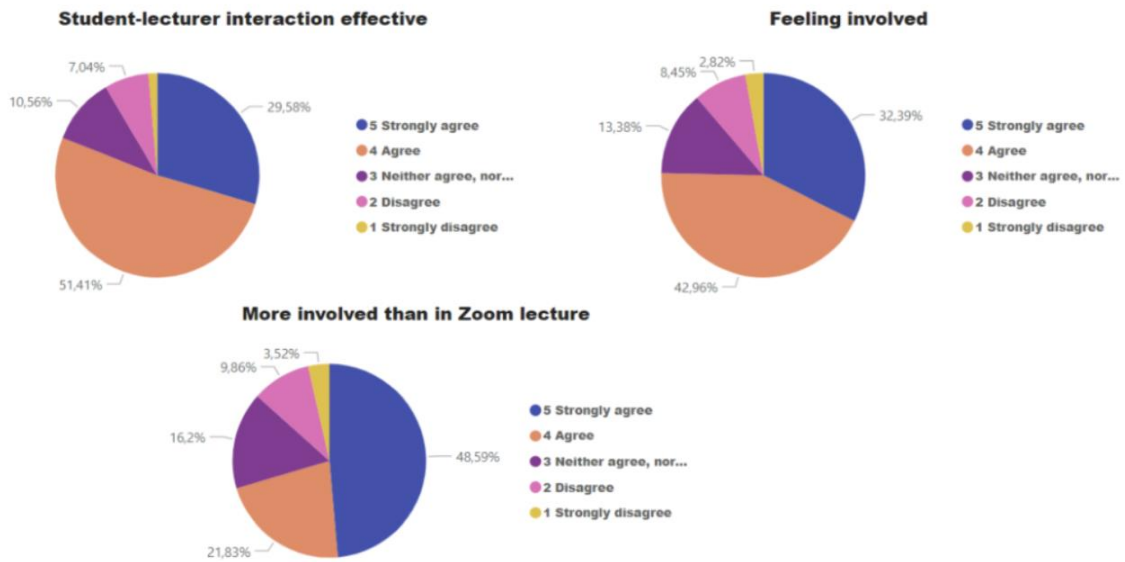


Figure 5: Student evaluation results

Figure 5 demonstrates that of all the students that participated (N = 144), 80.99% (percentages of students who agreed or strongly agreed) experienced the interaction between students and the lecturer as effective. 75.35% (percentages of students who agreed or strongly agreed) reported that they felt involved in this type of lecture.

Furthermore, 70.42% felt more involved during these type of lectures than they do during a 'regular' Zoom lecture and 80.55% (percentages of students who agreed or strongly agreed) even prefers a lecture in the HLT over a regular Zoom lecture (Figure 6).

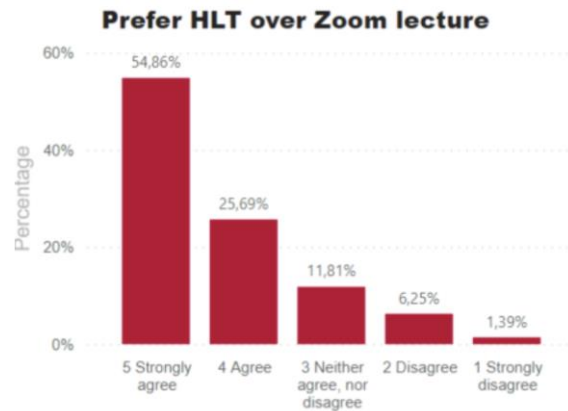


Figure 6: Students prefer HLT

Finally, 81.83% of the students graded their overall experience of the Hybrid Learning Theatre with an average of 7.8/10.

Of the lecturers that participated in the survey, 87,50% experienced the interaction with students in the HLT as effective or very effective. When asked if a lecture in the HLT would be preferred over a 'normal' Zoom lecture, 100% preferred their lectures in the HLT. Overall, lecturers rated the HLT with an average grade of a 9.13 out of 10.

Lastly, students that participated in the survey also rated the sound and video quality. On a scale of 1-10, 86.33% rated the quality of the sound an 8 or higher and the video quality was rated an 8 or higher by 77.54%. Of the lecturers, 85,71% rated the quality of the sound with an 9 or higher and the video quality with an 9 or higher by 100%.

4 Different types of learning

The hybrid learning space facilitates different types of hybrid learning and events including lectures, tutorials, education-related events, and recordings of (knowledge) clips, to be used for all programmes, both bachelor- and master courses. It facilitates different 'types of learning' such as instruction, discussion, collaboration, presentation, and even social interaction. This specific room was set up as an experiment, but is now expanded into a permanent room in combination with the construction of extra hybrid learning spaces at UvA, in order to reach more lecturers and students. We now live in a time where flexibility and hybrid education is more needed than ever. We hope type of AV-enabled classroom inspires and will expand, in order to let as many students benefit from an engaging, dynamic learning experience.



Figure 7: View of remote participants

5 Testimonials

– Student testimonial: "This was the best lecture that I ever experienced. The atmosphere is welcoming and I feel very comfortable".

– Lecturer testimonial: "1) In the HLT, the students that are participating are truly motivated and curious, which makes teaching more fun, even more fun than regular on-campus lectures. 2) in the HLT there is a professional team who can help you with technical issues, with normal Zoom lectures you have to do everything yourself. 3) In the HLT there are multiple cameras and a full shot of the teacher. This creates better visuals, which makes watching the lecture more interesting for students."



Figure 8: View from back of hybrid lecture theatre

6 References / Citations

University of Amsterdam (2021) UvA EB Hybrid Learning Theatre. YouTube. Retrieved April 30 2021, from: <https://www.youtube.com/watch?v=BC95p6b9ZGg&t=9s>

7 Author biographies



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