



UTILIZING ZOOM-STAMPS IN SYNCHRONOUS ONLINE WORKSHOP IMPLEMENTATIONS

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ABSTRACT

In engineering education, and in work life in general, the past two years have been struggling with Covid-19 pandemic. When considering studying, learning, and working, the teachers and other facilitators have been forced to create innovative methods for online working, aiming to good work efficiency, student engagement, and learning results. Along the development of various online working possibilities, it has been noticed that especially interaction among participants in synchronous online sessions is a challenge. Even if some participants are actively discussing and working in online sessions, some participants remain very silent and indistinguishable. Furthermore, even though the technical tools for online working and learning have developed rapidly during the recent years, technical problems still exist quite often.

There are numerous ways for increasing interaction in online sessions, including, for example, asking questions, using camera, utilizing chat or third-party applications like Padlet, and small group discussions in breakout rooms. In this paper, we will present how we utilized Zoom-stamps in two types of workshops. The basic idea in utilizing Zoom-stamps was to increase interaction and communication among participants and help them to further develop ideas created and discussed in the workshop. The lessons learnt from the first type implementations were considered when planning the second type implementations. We will describe the pros and cons of the Zoom-stamp utilization in synchronous online working as well as share our future development ideas.

1 INTRODUCTION

The covid-19 pandemic forced about all educators in all education levels to transform their teaching online. The switch from classroom teaching to remote teaching took place almost overnight. The covid-19 situation has been ongoing now over two years, and during this period, the educators have rapidly and intensively developed online teaching and studying methods.

The tools and practices for online teaching has been enormously developing all the time during the past two years, both for synchronous and asynchronous learning events and assignments. It has been noticed that one challenge in synchronous online teaching is the lack or difficulty of interaction and communication during the classes [1, 2]. In traditional face-to-face learning events interaction is easier and comes more naturally. The rapport building is easier in face-to-face than in synchronous online learning sessions [3]. It is effortless to join a discussion when you see other people around you, and you can also see their body language. For an individual student it is quite easy to stay silent and indistinguishable in synchronous online classes, especially because due to our regulations we cannot require videos to be turned on during the learning events, thus many times you cannot see the other participants at all, and their facial expressions and body language remain unseen, hence easy ways for increasing interaction and communication among participants are really needed.



Numerous ways for increasing interaction in synchronous online sessions have been developed and tried in practice, including, for example, asking questions, using polls, using camera, utilizing reaction features, utilizing chat or third-party applications like Padlet, and small group discussions in breakout rooms. These all have benefits and disadvantages, and they all suit very well to some purposes. For example, reaction features are a good way to give instant feedback to the issue on hand, and many students find writing on chat as a very easy way to express themselves during an online session. In this study we will tell our experiences about using Zoom-stamps in synchronous online workshops to boost interaction among participants and to help them to further develop the ideas created during the workshops.

2 ONLINE SYNCHRONOUS MEETING TOOLS

There are multiple options for videoconferencing, teaching and researching online, such as Zoom, RemotePC Meeting, GoToMeeting, ClickMeeting, Microsoft Teams, Cisco WebEx, Blackboard Learn Ultra, Skype, and Google Meet [4, 5, 6, 7]. The videoconferencing systems have many similar properties, but there are some differences also, and these platforms are developing all the time.

Many researchers have found Zoom to be a very good videoconferencing system, for example, Fatani piloted two platforms (Blackboard ultra and Zoom) and chose Zoom, because “easier navigation and fewer interruptions, connection dropouts, and audio-visual problems” [4]. The participants in Archibald et al’s study preferred Zoom to other videoconferencing platforms [5]. Furthermore, the reported benefits include ease of use, cost-effectiveness, accessibility, timesaving, security options [3, 5], and flexibility [8].

Zoom offers an easy-to-use online platform for interactive and synchronous teaching [4] and research [3, 5]. It allows different innovative features, such as annotation tools, polls, and breakout rooms [9]. Furthermore, it provides video and screensharing [4], chat and whiteboard. These multiple features can help interaction in synchronous online teaching. Even though Zoom is a very liked video meeting platform, also negative experiences and thoughts exist. Serhan has found that students sometimes find that Zoom makes learning experience and learning motivation worse [8]. For more information on Zoom and its features, see <https://zoom.us/>.

Zoom and Teams are available in our university, and therefore they are the most familiar videoconferencing systems for us. Both work well in synchronous online teaching, but some properties that exist only in Zoom make it our choice, especially for large student groups. The favoured properties that lack from e.g., Teams and Google Meet are versatile annotation tools that can be used as well with whiteboard as with screen sharing. The Zoom’s annotation tools include a stamp-tool. There are some annotation tools in e.g., Teams and Google Meet, but not very many, and they can be used only with whiteboard, not with screen sharing. Furthermore, we have noticed in practice, that if the synchronous online session participant number is big, approximately over 50, the Teams is continuously having network connection



problems when used from a home network. Zoom can handle a larger number of participants without network problems. Of course, this depends on the network, and this problem does not exist in all cases.

3 UTILIZING ZOOM-STAMPS

During Covid-19 pandemic we organized workshops and discussion groups using Zoom. We used Zoom-stamps for voting in the workshops and discussion groups. We could not use the Zoom's poll tool to cast votes, because the ideas to be voted on were created during the workshop sessions. In addition, so many ideas were produced in the workshops that it would have been too time-consuming to create the poll in the middle of the session.

Already in traditional inclass sessions, as well as in online sessions, many kinds of student response systems have been used to activate students, to get their opinion on the issue, or to test their knowledge about the subject on hand. However, these systems need teacher's preparation of the questions before the session. Hence, they are not suitable to situations, where the subject is developing in the session and there is no time to create polls during the session.

The stamps are in Zoom's annotation tool. They are only available in Zoom's desktop application. If participants are attending a Zoom session via mobile phone or an internet browser, the annotation tool is not available. This caused some technical problems during the workshops and discussion groups.

3.1 Study setting 1: Workshops

We organized five workshops in Zoom where the main purpose was to create new ideas on the topic in hand, and to discuss and further develop these ideas. The participant number in these workshops varied between 5 to 15, and in addition five to six organizers participated in the workshops.

The workshop flow was the same in all the workshops:

1. Silent thinking and writing on a shared whiteboard related to the question presented.
2. Free discussion about the ideas that the participants had created. At the same time, one organizer grouped the ideas on the screen.
3. The participants were asked to give different shaped Zoom-stamps to the idea that was the most pleasant (heart shaped stamp), the most innovative (star shaped stamp), and the most challenging (question mark shaped stamp).
4. Discussion on the stamps: Why the participants gave the stamps to the specific ideas.

Participants were asked to vote for the most pleasant, innovative, and challenging idea by placing a proper stamp next to the written idea on whiteboard. Many of the participants clearly enjoyed giving stamps to the ideas, and in this way their individual voices were heard. Giving stamps also boosted the conversation, it was easy to talk about the thoughts behind the stamps. In Figure 1 is an example of how the screen could look like after workshop phase 1, when the ideas are written on the

screen. In the Figure 2 is an example screen with stamps, this could be the case after workshop phase 3. In both the Figures 1 and 2 you can see also Zoom's annotation tool. The real situation on the screen was often not as clear as the examples in Figures 1 and 2, mainly because the participants did not use the colours in any planned way, and in addition many times there was really a lot of ideas, subideas, etc. on the screen. So, the screen was sometimes quite full.

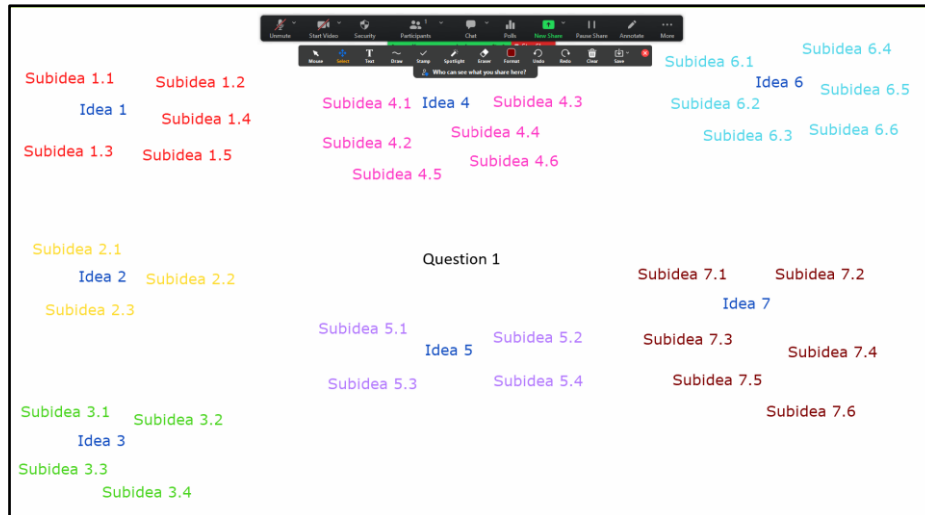


Figure 1. Example of the screen with ideas.

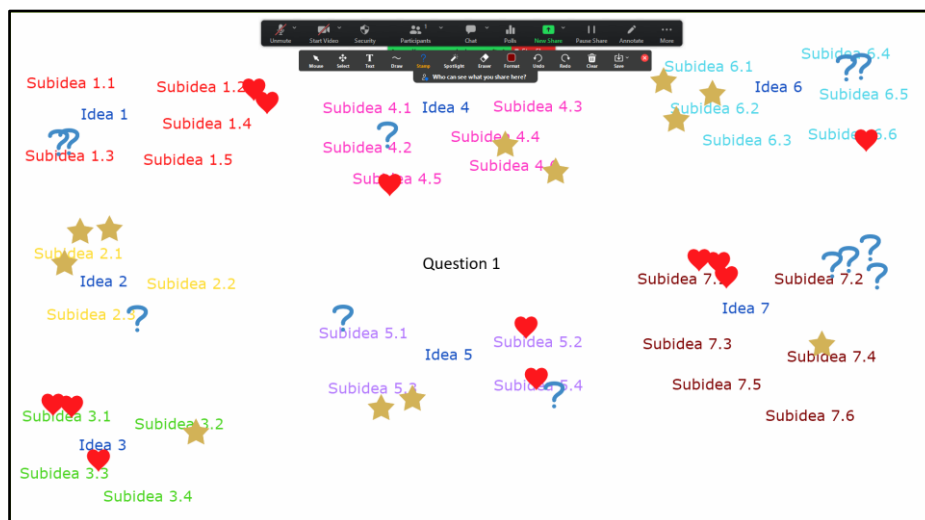


Figure 2. Example of the screen with ideas and stamps.

Even though the Zoom-stamps were found good in increasing interaction and boosting the conversation, some problems occurred. The participants that were not using a Zoom desktop application did not have the annotation tool, where the stamps are. The problem was solved by asking these participants to write in the chat to which idea they want to give their stamps, and then one organizer sat the stamps to the right place on the whiteboard. Furthermore, another difficulty was that it was sometimes hard to place the stamp to the right idea on the screen, because in some cases the whiteboard was so tightly filled with the ideas, that the stamp hit many of



them at the same time. Many times, there were lots of stamps simultaneously on the screen, and they got mixed and buried under each other. This was because every participant gave three stamps altogether, and in workshops with a larger number of participants this resulted in a stamp-mess. Thus, it was difficult to distinguish which idea each stamp was aimed at.

We found that thorough informing and clear guidelines are important to smooth flow of the workshop. In this first implementation round we had instructions, but even more would have been needed. Overall, the Zoom-stamps showed their potential in synchronous online sessions. The process needs some development to avoid the problems that existed in this first implementation round. Hence, we decided to use stamps again in discussion groups.

3.2 Study setting 2: Discussion groups

Two focus group discussions were organized for 12 participants to create, evaluate, and develop ideas for prototype development. This focus group study was organized according to the methodology suggested by Hamilton including the sections of “create”, “evaluate” and “develop”. We will report the “evaluate” section that utilizes the usage of stamps for voting in detail [10].

With experience from the Workshop setting 1, we decided to pilot the study and test the technical procedures. Casting fewer votes was considered more efficient and resulted in less confusion among the participants. As a result, we decided to have the participants to vote for two ideas that they felt were appropriate for further development.

After the “creating” -section, participants were asked to look at an extensive list of options they had created before the workshop and during it. They were then asked to vote on the two they felt were most suitable to develop further. Unlike in the first workshops, the Zoom-stamps were now asked to be placed on top of the written option to make it easier to identify which word the stamp was targeted to. Despite careful preparations, technical problems occurred in voting and a few participants (using mobile devices) could not use the tool. They were asked to vocalize their opinion; one organizer added their votes to the list. An option of using the chat was also provided, but none of the participants used it for voting. In each focus group, three of the most voted ideas were selected to further exploration. The voting was considered successful for the purposes of the study. However, it was noted that those who had problems with placing the stamps may have felt rushed to do so as solving the technological problems took a lot of time resulting in less time to evaluate the options. After the study, we asked the participants to fill in a university’s subscription to Office 365, Microsoft Forms, to elicit further ideas and to give feedback in general. While two participants commented on the technical challenges, most participants felt that technical problems are somewhat inevitable and did not interrupt the flow of the discussions greatly.



4 SUMMARY AND ACKNOWLEDGMENTS

In this study we found that using stamps is an excellent way to reach independent votes during teaching or for research purposes. Zoom-stamps increase engagement and provide a tool, in which the participants' individual voices can be heard. Zoom-stamps also help in building rapport among participants and teachers. Careful preparation and prior testing are needed to achieve a smooth synchronous online session flow. It is recommended to use Zoom desktop application instead of web browser or mobile devices to diminish the occurrence of technical problems in synchronous online learning events. It is necessary to give the participants information at the beginning of a session that technical issues may occur, especially when using mobile devices (such as smartphones and iPads). In such cases it is important to have a plan to overcome the issues, such as an assistant present to help. If participants cannot use Zoom's annotation tool, the participants may vocalize their opinions or use chat option. When an independent vote is needed, as sometimes is in research, providing a phone number or e-mail to cast a vote (to maintain anonymity) is advised. Furthermore, it is important to give the participants enough time, so that there is some time considered also for covering the possible technical problems.

Even though information is in general a good thing, based on our experience, we do not recommend providing excessive information on how to use the stamps before the session, as it may confuse some participants. However, we found that it is extremely important to give clear and comprehensive guidelines for the session, e.g., it is important to tell, how the Zoom-stamps should be placed on the screen to gain the wanted result. Furthermore, we found that Zoom-stamps are quite difficult to target to a particular word if the whiteboard is full of text. Hence, using stamps for voting is easier when there is enough space between the words written on the whiteboard, and when the number of stamps altogether is not huge on the whiteboard.

Overall, even though the Zoom-stamps are only one of Zoom's annotation tools, we found them very efficient in interaction and communication boosting in synchronous online sessions. They are easy and simple to use, and the participants clearly liked them.

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