

## **Participation in the study 'Sense the Classroom'**

Dear Sir / Madam,

We ask you to participate in a scientific study: Sense the Classroom. Participation is voluntary. In order to let you join, we do need your written permission. In this letter, you find information about the study. You can ask the researcher any questions you still have after reading this letter.

### **1. Purpose of the research**

In this study, we aim at understanding if we can capture the learning-centered affective states of students in online lectures. Learning-centered affective states are states considering the learning experience. Some examples learning centered affective states are confusion, boredom, engagement and delight.

### **2. Background of the research**

In the context of online education, the teacher has limited insight into the learning-centered affective states of students. Students' learning experience and performance are highly related to their psychological, physiological, and emotional states. In a face-to-face classroom, it is possible for teachers to observe these states of the students and act accordingly. However, in the context of online education, the teacher has limited insight into the learning-centered affective states of students. It is therefore highly valuable to design a privacy-sensitive system that allows the teacher to understand these states in students. In this study, we aim to provide a proof of concept of a method for measuring the learning-centered affective states of students during an online lecture.

### **3. What participation means and what is expected of you**

While you participate in the online educational activity (e.g. lecture), we will ask you to visit the website that is provided by the professor of the course and to allow access to your webcam. You will get access to the web application by clicking a link that the professor of the course will share in the chat of the online learning platform and logging in with a nickname of your preference. You can use this nickname to re-enter the web application during one lecture in the case that the page was timed out for any reason. At the end of each online lecture session, you will be asked to fill in a questionnaire. The link to the questionnaire will be available in the web application after the completion of the lecture. One of the questions in the questionnaire, i.e., the difficulty of each topic of the lecture, is going to be annotated also by three researchers after the data collection. The data will be collected using a software tool. You will visit the website provided by the researcher and allow the website to access the webcam of the computer. The website will NOT record or transfer any raw video. It will only capture your postures, facial expressions, and gestures and transfer them in a numerical format. It will be impossible to transform these numbers into identifiable images, therefore, it has limited sensitivity. You will have the opportunity to participate in the experiment during lectures 2,3,4 and 5 of the course.

### **4. Possible advantages and disadvantages**

The advantage of your participation is that you will help researchers study ways to improve education in a safe, and privacy-sensitive way.

There are no disadvantages to participating, other than using the web application during the course and investing 5 minutes of your time in answering a questionnaire.

### **5. If you do not want to participate or want to stop the research**

You decide whether you will participate in the research. Participation is voluntary. If you do not want to participate, this does not have any negative consequences for you. If you do participate, you can always change your mind and quit, even during the research. You do not have to explain why you quit. Reach out to the researcher if you want to quit the study.

## **6. End of the research**

Your participation in the research ends when you completed the data collection in the browser (i.e. completed the questionnaire after the lecture). The data collection will occur over lectures 2,3,4 and 5 of the course. You have the opportunity to participate in as many lectures as you prefer.

## **7. Use and storage of your data**

For this research, personal data is collected, used, and stored. It concerns your postures, facial expressions, and gestures. Moreover, you will be asked via a questionnaire about your gender and whether you were wearing glasses during the lecture or not. However, the website will transfer them in a numerical format. The collection, use, and storage of your data is necessary to answer the questions posed in this study.

The results of the research will be shared with colleagues of the researchers. The data that is shared does not contain any information that can be traced back to you. The data cannot be traced back to you in reports and publications about the research.

### **Confidentiality of your data**

To protect your privacy, your data is collected under the nickname you choose for yourself when you login into the web application's session. This nickname cannot be traced back to you in any way.

### **Access to your data for control**

In order to be able to assess whether the investigation has been carried out in a reliable manner, members of a visitation committee can inspect the information.

### **Duration of data storage**

Your data must be kept for 10 years by the Open University.

### **More information about your rights when processing data**

For general information about your rights when processing personal data, you can consult the website of the Dutch Data Protection Authority. The privacy disclaimer of the Open University can be found at [www.ou.nl/privacy](http://www.ou.nl/privacy).

## **8. Do you have questions?**

If you have any questions, please contact Krist Shingjergji (e-mail: [krist.shingjergji@ou.nl](mailto:krist.shingjergji@ou.nl)).

## **9. Signing the consent form**

If you have had sufficient time for reflection, you will be asked to decide on participation in this study. By your written, online consent you indicate that you have understood the information and agree to participate in the research.

### **Contact Information**

Researcher (primary contact): Krist Shingjergji (e-mail: [krist.shingjergji@ou.nl](mailto:krist.shingjergji@ou.nl))

Supervisors: dr. Deniz Iren, dr. Corrie Urlings, Prof. dr. Roland Klemke

Principal investigator: Prof. dr. Roland Klemke

Complaints or questions: <https://www.ou.nl/en/web/open-universiteit/complaints-and-disputes>

Data Protection Officer of the institution: Ms. S.E.M. van der Westen

For more information about your rights: <https://www.ou.nl/en/personal-data-disclaimer>