

11 Supplementary Material

1. Section I- General Questions on the framework:

- (a) Do you believe that improving knowledge through e-Learning is better than traditional Learning?
Yes [] No []
- (b) Have you used a system with a similar interface with this system before?
Yes [] No []
- (c) General comment about this system.

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2. Section II- Use of the system

- (a) How did you like the system interface?

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- (b) Is the video under consideration too long?

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- (c) In which part of the video did you feel bored?

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- (d) What type of learning affect did you experience while watching the video?

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3. Section III- Feedback

- (a) How do you think the system can be improved?

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- (b) **Key:**

5. Strongly Agree
4. Agree
3. Neutral
2. Disagree
1. Strongly Disagree

No.	Questions	5	4	3	2	1
1	The feedback was clearly stated					
2	I understood the feedback					
3	The feedback was helpful					
4	The feedback given related to the learning affect I experienced					

1. **Consent Form**

Title of Project: Facial Emotion Recognition Using Temporal Relational Network-An application to E-learning

Name of Researcher: Anil Audumbar Pise

I..... agree to the arrangements described in the Information sheet in so far as they relate to my participation. YES NO (please circle)

I understand that my participation is entirely voluntary and that I have the right to not participate in this study. YES NO

I agree that my participation will remain anonymous YES NO

I agree that the researcher may use anonymous quotes in his/her thesis YES NO

I agree that details of how I use the system, maybe captured and reported in any formal document from the research work YES NO

I agree that my facial emotion will be captured. YES NO

I agree that I understand what a learning affect is as expressed in the information sheet. YES NO

Name of Participant:

Signature:

Date:.....

2. Participant Information Sheet

Title of Project: Facial Emotion Recognition Using Temporal Relational Network-An application to E-learning

Good Day,

I am Anil Audumbar Pise, a PhD student studying Computer Science at the University of the Witwatersrand, Johannesburg. I am currently working on research project title “Facial Emotion Recognition Using Temporal Relational Network” to provide automatic feedback to students accessing e-learning platform for teaching and learning purposes. Under the supervision of Dr. Hima Vadapalli and Prof. Ian Sanders.

As a student of Wits University, we would like to invite you to be a part of this study. We would like you to please use the system and fill in the hard copy questionnaire and/or on-line survey afterwards. You will be asked questions based on your understanding of the content of the video. Completed questionnaire will be safe under lock for a period of three years before it is destroyed.

The system will be used in a laboratory setting, and you will be required to watch an educational video clip for about 10 minutes. A computer web camera will be set to capture your facial expression. Images captured will be encrypted using AES encryption standard.

This process is to help access your learning affect while using the system. Learning affect is the emotions or values experienced by a learner while learning in an educational environment, in this research we classify learning affect to positive when a learner has a positive effect while learning, negative when learning experienced difficulties while learning and neutral when a learner is undecided.

You will not receive any direct benefits from participating in this study, and there are no disadvantages or penalties for not participating.

The process will take approximately 20 minutes of your time (10 minutes to use the system, and 10 minutes to complete the questionnaire and survey).

Be assured that:

- Your participation is voluntary, refusal to participate will involve no penalty or loss of benefits.
- Your participation is anonymous. No personal details such as your ID, name, address, student number, or phone numbers will be required.
- You may refuse to answer questions about which you feel uncomfortable and may withdraw from the study at any time without penalty or loss of benefits.
- The information you provide will be used for research only.
- The findings may be published in seminars, conferences, and academic papers, but no individual information will be released.
- This study will be written up as a research report which will be available online through the university library website.
- A summary of the research findings may be made available to you if requested.
- Kindly contact (details below) me if you have any questions.

If you have any queries, concerns or complaints regarding the ethical procedures of this study, you are welcome to contact the University Human Research Ethics Committee (non-medical), telephone: + 27(0)11 717 1408, Email: hrec-medical./ Shaza

Sincerely,

Researcher: Anil Audumbar Pise, 1424928@students.wits.ac.za, 0676775593

Supervisor: Dr. Hima Vadapalli, hima.vadapalli@wits.ac.za, 0117176186