



Eyes Don't Lie: Student Evaluation of Teachers Using Participant Facial Expressions

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Abstract

Purpose

This study's purpose is to establish proof of concept for an alternative training participant satisfaction evaluation method. The study is guided by the following questions:

1. Can facial expression data during training sessions be successfully collected and analyzed to make claims of participant satisfaction?
2. What can participant facial expressions indicate regarding participant satisfaction?

Background

Training effectiveness evaluations take place following many models, including Phillips' [1] five-level model. According to this model, level one evaluations measure learner reaction, level two measures learner achievement, level three measures transfer of training, level four measures training impact, and level five measures return on investment. Typically, level one evaluations use surveys to collect data. Inaccurate result may come from poor instrument design, low response rates, and participant readability issues [2]. A proposed alternative to overcome these limitations is to measure facial expressions during training sessions. A window to one's emotional state, facial expressions happen without our need to tell ourselves how we feel and how to display this emotion to others [3]. Additionally, "some facial muscle actions associated with emotion cannot be consciously inhibited" [4], providing a unique opportunity to collect accurate reaction data.

Research Design

This study will take place in a workplace training setting. At the start of each session, participants will be informed about the study with consenting participants completing a survey of demographic and workplace data. Each participant will receive a numbered armband for identification purposes. During the training session, multiple video cameras will capture participants' images. From the video, still images will be captured every five minutes for analysis. Finally, a post-course evaluation will collect reaction data. Facial expressions will be scored using Ekman and Friesen's [5] Facial Action Coding System by the researcher. Facial data will be compared to demographic and post-course evaluation scores to identify relationships or differences among participants.

Relevance and Contributions

This study is relevant to adult education by providing a new perspective on program evaluation. If validated, new evaluation opportunities will emerge, to include automatic facial expression detection programs for real-time satisfaction measurement. This study will contribute options for evaluative flexibility through unobtrusive observations rather than time-consuming surveys. Additionally, this could be valuable in the virtual learning environment, whether the program is delivered synchronously or asynchronously.

References

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