Researchers (educators) also have to ensure (for the significant feedback) that students’ monitors are setup below the eye level and do not change the vertical position during the study unit.

For immediate reflection of emotional arousal, the person’s involvement estimation, attention and autonomic arousal during the learning process, GSR measurement, which dates from the turn of the 19th century, is still one the most exciting and economically rationalized way. It is also an effective means of studying the influence of task-related arousal (Macintosh et al., 2007). In the last century, GSR measurements rarely overcame the laboratory conditions. In those rare cases when GSR was used for large scale, “out-of-laboratory” experiments, the sampling frequency was usually too low to reflect the high frequency phasic changes. With the progress in technologies and miniaturization, the wearable wireless Bluetooth skin conductance sensors with high sampling frequency became easily available. Still, skin “contact“ problems, huge individual differences, ineffective or no elimination of wrong data sets, together with inadequate data processing methods, negatively influenced both the reliability and validity of GSR measurements and led to a large variety of inconsistent research results. Fast Fourier Transformation and other relevant methods for GSR phasic component data processing and interpretation are rarely used, although some of them seem to bring new views (needs further evaluation and research).

EEG and Heart rate measurements, although bringing a lot of information valid enough for automated educational feedback in virtual learning environments, seem to be, for different reasons (economic, safety, real time signal processing, necessity of individual setup, etc.), still the most expensive and most complicated solution.

**Bibliography**


