Silence: A Novel Method of Communication for MND and MS Patients Using Eye Movements

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This study aimed to examine the effectiveness of the Silence application on the communication of the Motor Neuron Disease (MND) and Multiple Sclerosis (MS) with others. The study methodology contained three phases. First, a survey was designed and conducted to discover the social and other effects of communication lack on the patient and community. Second, the Silence application was designed to enhance the communication of the MND and MS patients through being an affordable, portable mobile application that is inclusive and easily used by everyone. The application reads the eye language (we created and designed) and translates it into letters and words that would be spoken through the phone's speaker, and sent to other people's phones, and translated into other languages in case needed. Third, a sample of 50 (MND) & (MS) patients and mutes aged between 7-26+ years were chosen to examine the application by using it to write sentences and words. The results showed that [90%] of the patients didn't feel any type of eyestrain or pain while using the application and [10%] felt moderate strain while using it, [96%] of the patients voted for the application as a socially acceptable application, [86%] voted and agreed that the application was easy to learn and use [14%] saw that the application is moderately hard to use. Silence application showed a (19.22 words/ minute) average speed of typing which is a high speed of typing. In a conclusion, the Silence application was a highly effective method of communication for Motor neuron disease and multiple sclerosis patients.

Awards Won:
Second Award of $2,000