An E-Learning Platform for Hearing Impaired Children

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E-learning, also known as electronic learning, is a method of disseminating knowledge with the separation of teachers and students. Hearing loss and hearing impairment are common examples of disabilities that affect people. E-learning is found to be an effective method for hearing impaired children for their education as it gives them the ability to do their education at home without having to go anywhere else. Although the concept of e-learning gives a full idea of the opportunities it can offer, it has some shortcomings that need to be considered. For children who are learning letters and numbers, this online learning method would not be as effective as it would be for the older generation. Therefore, children under the age of five should have a proper solution to learn letters and numbers, even in times of crisis. The main objective of this research is to discuss the need for a proposed solution for hearing impaired children. The proposed e-learning platform will support both Sinhala and English languages. Therefore, children can get an education in the language of their choice. This platform will teach the children step-by-step how to write letters, in both Sinhala and English as well as numbers. The system uses machine learning with Support Vector Clustering (SVC) to identify the letters and numbers they provide. This algorithm is constructed by SVM (Support Vector Machine). In addition, the system will provide simple questionnaires and activities for them to complete, while doing their studies through the platform. The aim of this paper is to make e-learning more effective and efficient for hearing impaired children.

Keywords: *hearing impaired children, e-learning, distance education, crisis situation, education, deaf children*