**Abstract**

There are a lot of assistive technology tools are available to help individuals with learning disabilities. Assistive technology tools improve the skills of the children such as listening, mathematical, organizing, memory, reading and writing. Speech recognition technologies are highly effective and beneficial for children with one or more challenges that include learning disabilities like dyslexia, discalculia and dysgraphia. In the proposed work, an application,”TamilEasyApp‟ has been developed for children with both reading and writing disability, with an objective to support the children to learn Tamil words effectively. It has been developed by using Robust Tamil Consonant-Vowel Model (RTCVM) which addresses both speech rate variability and environment variability. A list of 100 Tamil words is prepared according to their educational need as well as the educational theories involved in teaching disabled children. In the presence of trained teachers, nearly 25 children including male and female within the age group 7 to 15 are participated in recording and uttered each Tamil words 10 times during their regular learning time. The impact of the application is gathered from the teachers after the usage of the application for a period of two months. The performance of the children is assessed by conducting post-test after the introduction of the application and compared with their skill level in regular learning before the introduction of application. The pre-test and post-test details and observations are collected from the special trainers. The overall observation indicates that the motivation and independent learning among the children significantly progressed through the use of speech assistive tool.