

## Multisensory design elements in stimulating learning environment for Dyslexic children

### ABSTRACT

This research aims to investigate multisensory design for stimulating learning environment for children with learning disabilities. Nowadays, there are many learning facilities like Dyslexia centres and schools exist in Malaysia due to increasing pattern of children with the symptoms. Regardless of the situation and arising numbers of existing Dyslexia centres, no standard guidelines to follow for classroom setting of the facilities in establishing the multisensory learning environment for the dyslexic children. Providing the correct support through a proper learning environment setting is very important as the condition is curable. However, an inappropriate corrective method would cause to delay of improvement or worse, affecting their social development which is important for their future. Therefore, understanding multisensory design elements are essential to all Dyslexia centres and schools in creating a stimulating environment for the children. The objectives of this research are to identify and determine the multisensory design elements for the interior spaces of Dyslexia centres and schools. Also, to assess the condition of the existing Dyslexia centres and schools in relation to the multisensory elements in stimulating learning environment for the dyslexic children. Direct non-participant observation was adopted for data collection method while analysis was done based on the availability of multisensory elements in the selected Dyslexia centres and schools. The research found that there are four (4) multisensory design elements that are important for stimulating and engaging learning environment for dyslexic children, which are; visual elements, auditory elements, tactile elements and kinesthetic elements. These integrated learning elements are essential and practical, particularly for dyslexic children. The research also found that most of the visited facilities are not providing sufficient learning standards that stimulate the learning environment for dyslexic students. Most of the facilities did not provide the principle elements of psychology in design which is the most crucial elements of the learning process. Upon the identified multisensory design elements, further and broader scale of research is recommended to establish a design guideline or standard requirements in designing Dyslexia centres and schools in Malaysia.

**Keyword:** Multisensory design; Dyslexic children; Learning environment