



UNIVERSITI TEKNOLOGI MARA

**INTERFACING AND CONNECTIVITY
MULTISENSORY ROOM MODULES FOR
COGNITIVE THERAPY SESSIONS**

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ABSTRACT

This technical paper put about assisting the rehab medicine team through improving connectivity and interfacing of multisensory environment cognitive therapy. The main objective is to design interface for therapist to patient assessment that develop effective data collection during multisensory therapy session. Second objective is to provide connectivity from Arduino to excel file for multisensory room activities so that patients will have digital data storage for clinical data analytics to take place. For this project system, the treatment sessions would be separated to five sub-modules. The first is the point at which the patient meets the specialist or advisor appraisal, to be given the clinical prescription. Next is pre assessment, trailed by the MSR session. The treatment is finished up by post assessment of MSR. Available current solution there is no connectivity for the rooms. Meaning all the activities are not recorded continuously. Moreover, the assessment data done by the therapists do not go into digital or cloud storage directly. There is another issues need to be solved is when the doctor's do clinical review, it is only based on direct observation. There is no neutral data are done on the assessment analysis report if not done by therapists. Scope of the study will cover the software that will be placed for multisensory room.

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CHAPTER 1

INTRODUCTION

1. 1 Background of study

Multisensory environment offer a casual air with charming, environment, alleviating sounds, enrapturing fragrances, material encounters, back rub and vibration, and delicate development. It has intriguing light impacts and open to seating enable the patient to self-manage by picking sensations. Further, the multisensory environment conditions give chances to cooperation and commitment. The world is full of sensory stimuli. Some individuals are not be able to organize and respond appropriately to this stimuli, others have lost skills due to accident or illness, and some lack the ability or freedom to make choices to balance their sensory lives. The five senses with which we are most familiar with are vision, touch, smell, hearing and taste. This project presents multisensory room for cognitive impairment that has no connectivity and interfacing. A confounding variable disrupted the experiment and expressed the possibility that the subject's multi-sensory room experience may have depended on a certain stimulus which changed throughout the experiment. A number of studies have examined the effects a multisensory environment has on clients with profound multiple disabilities. The multisensory environment, commonly referred to as a multi-sensory room environment, has provided support for this leisure activity to have potential benefits for this population. Only a minimal amount of research to date has examined the potential effects of multi-sensory room on adults with autism. The multisensory room use as the treatment for the brain impairment patients.