

UNIVERSITI TEKNOLOGI MARA

**A PRELIMINARY STUDY ON EFFECTS OF
READING AL-QUR'AN AND COMIC TO
HUMAN BRAINWAVE USING EEG**

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ABSTRACT

This preliminary focuses on the effects of reading Al-Qur'an and comic to human brain wave activity measured using EEG. In this research, both left and right side of human brainwave is recorded using non-invasive technique called EEG. All 30 samples were testing almost five minutes per reading and all results were recorded. Before being tested with EEG, each sample will be interviewed with several questions that were related to this research. During this test, each sample must read same surah of Al-Qur'an and same comic to get the results consistently. This research only focuses on the beta wave. In conclusion there is correlation on beta wave signal for left and right side which is 46.3% for before reading and during reading Al-Qur'an and comic which are 92.9% and 73.8% respectively. The value of beta wave for left side is higher than right side for three sessions. In additional, reading Al-Qur'an leads to higher percentages which are 71.9% and 63.5% for both sides.

Keywords: EEG; Brain Waves; Al-Qur'an; Comic; Beta Wave

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION

The human brain is the most complex part of the human body and located at the center of the human nervous system. This organ is very important because intelligence, senses, body's actions and reactions, and behaviors depend on brain. It continuously receives sensory information, and rapidly analyzes this data and then responds, controlling bodily actions and functions [1].

The brainstem controls breathing, heart rate, and other autonomic processes that are independent of conscious brain functions. The neocortex is the center of higher-order thinking, learning, and memory. The cerebellum is responsible for the body's balance, posture, and the coordination of movement [1]. The brain in each person has their own wave depending on the situations or state of the person is currently in.