

**UNIVERSITI TEKNOLOGI MARA**

**REVIEW ON THE USE OF VISUAL EVOKED  
POTENTIAL (VEP) IN SPORTS VISION  
RESEARCH**

**IYLIA FAZRIANA BINTI ZULKIFLI**

**BACHELOR OF OPTOMETRY (HONS)  
FACULTY OF HEALTH SCIENCE**

**JULY 2016**

## DECLARATION

I hereby declare that the thesis was carried out in accordance with the regulations of University Teknologi MARA. It is based on my original work except for quotations and citations which have been duly acknowledged as a reference work. I also declare that it has not been previously or concurrently submitted for any other degree at UITM or other institutions.



.....

IYLIA FAZRIANA BINTI ZULKIFLI

18<sup>th</sup> July 2016

# **REVIEW ON THE USE OF VISUAL EVOKED POTENTIAL IN SPORTS VISION RESEARCH**

## **ABSTRACT**

Use of Visual Evoked Potential (VEP) towards sports performance it is not thoroughly researched yet. To-date the result of the use of VEP in the performance of the athlete is still inconsistent. The objectives of this study are to review the use of VEP in sports vision based on the type, components that had been measured and advantages or disadvantages of VEP. This is a systematic review type of researched based on the previous studies on the performance of athletes with VEP. This research was conducted by reviewing the reliable journals about the performance of athletes. Three factors were analyzed and presented in the table respectively to identify the pattern which the most type and component of VEP that had been used in most journals. Based on the reviewed, most journals showed that pattern-reversal VEP was commonly used among the athletes group as the type of VEP whereas the others performed in a flash and onset/offset VEP. In this VEP test, most of the components that had been tested was the latency of VEP. Moreover, there were also limited journals that discussed the amplitude of VEP which also one of the components that had been conducted. But throughout this reviewed, most of the journals stated that there were no significant difference of latency and amplitude N75 and P100 between athlete and non-athlete group. Only the latencies of N135 showed shorter of latency in athlete compared to non-athlete. In conclusion, this review might be helpful and important in constructing the test in athlete group for the examiner to identify the improvement of performance in athletes, even though there were different kinds of factors that had been used during the VEP testing.

**Keywords:** visual evoked potential, sports performance, visual skill, visual perception, athletes, latency and amplitude.

# TABLE OF CONTENT

<b>TITLE</b>	<b>PAGE</b>
<b>APPROVAL</b>	<b>ii</b>
<b>DECLARATION</b>	<b>iii</b>
<b>ACKNOWLEDGEMENT</b>	<b>iv</b>
<b>ABSTRACT</b>	<b>v</b>
<b>ABSTRAK</b>	<b>vii</b>
<b>TABLE OF CONTENT</b>	<b>ix</b>
<b>LIST OF TABLES</b>	<b>xii</b>
<b>LIST OF FIGURES</b>	<b>xiii</b>
<b>LIST OF SYMBOLS</b>	<b>xiv</b>
<b>LIST OF ABBREVIATIONS</b>	<b>xv</b>
 <b>CHAPTER 1 : INTRODUCTION</b>	
1.1 Background of Study	1
1.2 Problem Statement	4
1.3 Objective of The Study	4
1.3.1 General Objective	4
1.3.2 Specific Objective	5
1.4 Research Questions	5
 <b>CHAPTER TWO : LITERATURE REVIEW</b>	
2.1 Sport Vision	6
2.2 Visual Evoked Potential	7