

UNIVERSITI TEKNOLOGI MARA

**ASSOCIATION BETWEEN VISUAL MOTOR
INTEGRATION AND HANDWRITING AMONG
SPECIAL NEED CHILDREN AT PUBLIC
SCHOOL**

NAJWAA BINTI RAMLEE

Dissertation submitted in fulfillment
of the requirements for the degree of
**Master of Occupational Therapy
(Developmental Disability)**

Faculty of Health Science

July 2020

CONFIRMATION BY PANEL OF EXAMINERS

I certify that a Panel of Examiners has met on 1 June 2020 to conduct the final examination of Najwaa Binti Ramlee in her Master of Occupational Therapy Choose your degree. thesis entitled “Association between Visuo Motor Integration and Handwriting Among Special Needs Children at Public School” in accordance with Universiti Teknologi MARA Act 1976 (Akta 173). The Panel of Examiner recommends that the student be awarded the relevant degree. The Panel of Examiners was as follows:

Siti Salwa Bt Talib
Senior Lecturer of Occupational Therapy
Faculty of Health Science
Universiti Teknologi MARA
(Supervisor)

Chandra Kannan
Senior Lecturer of Occupational Therapy
Faculty of Health Science
Universiti Teknologi MARA
(Examiner)

**ASSOC PROF DR HJH HASLINDA
YUSOFF**
Dean
Institute of Graduates Studies
Universiti Teknologi MARA
Date:

ACKNOWLEDGEMENT

Firstly, I would like to thank God Almighty for giving me this opportunity to further my study in Master, and with the blessing I able to complete this dissertation paper on time. From the bottom of my heart, I also would like to express my greatest appreciation, and thanks to my supervisor Pn Siti Salwa Talib for helping me along with the research study until I managed to write this report. Not forgotten, my co-supervisor, Dr. Ahmad Zamir Che Daud. Without their guidance, I would not be able to complete my writing on time.

Special thanks to all my colleagues and friends for helping me a lot throughout the project. Not forget to all the students, teachers, and parents who give full cooperation and assistance.

Lastly, I would like to thanks my parents and family for their endless support for me to complete the study. I appreciate everyone who helps me a lot throughout this journey.

TABLE OF CONTENTS

	Page
CONFIRMATION BY PANEL OF EXAMINERS	ii
AUTHOR'S DECLARATION	iii
ABSTRACT	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	ix
LIST OF FIGURES	x
LIST OF APPENDICES	xi
LIST OF SYMBOLS	xii
LIST OF ABBREVIATIONS	xiii
CHAPTER ONE INTRODUCTION	1
1.1 INTRODUCTION	1
1.2 BACKGROUND OF THE STUDY	1
1.2.1 Special Education System	5
1.2.2 Policy	10
1.3 PROBLEM STATEMENT	12
1.4 OBJECTIVES	13
1.5 SIGNIFICANCE OF STUDY	14
1.6 DEFINITION OF TERMS	15
CHAPTER TWO LITERATURE REVIEW	17
2.1 SCHOOL READINESS	17
2.2 SPECIAL EDUCATION SYSTEM	19
2.3 OCCUPATIONAL THERAPY ROLES	22
2.4 VISUAL PERCEPTION	24
2.5 VISUAL MOTOR INTEGRATION	25
2.6 HANDWRITING	26

ABSTRACT

Background: Education is very important in an industrial and civilized society. Education is delivered through school to give basic knowledge of reading, writing, listening, speaking, and numerical set of knowledge. Through education, the young mind will be trained to become productive and independent. Besides that, education also contributes to the development of the children to become confident, strong, and successful. Moreover, behaviour also was found to learn through education. Therefore children regardless of abilities should have access to school. However, school readiness is an issue especially for children with a special need. School readiness is motor development and physical well-being, emotional and social development, learning, speech and language development, and cognitive and general knowledge including math. **Purpose:** This dissertation focus on finding an association between visuomotor integration and handwriting skills at Public School in Putrajaya District. **Methods:** 35 special needs children ages 6 to 8 years old participated in this study. The Beery Buktenica Developmental Test of Visual Motor Integration (Beery VMI) and Minnesota Handwriting was the outcome measure been used in the study. **Analysis:** Spearman's Rho and Kruskal Wallis test was used for data analysis. **Result:** The result of this study showed that there is no correlation between the child age and Minnesota rate, there is no significant difference in mean Minnesota rate between the age group of 6.0 – 6.11 years, 7.0 – 7.11 years and 8.0 – 8.11 years, there is no significant difference between the parent level of education and handwriting skills, there is a weak positive correlation between the score of Beery VMI and Minnesota Rate and Domain of Minnesota which show the significant result on correlation analysis to score of Beery VMI were size. **Conclusion:** The current study found that visuomotor integration was more likely interrelated to the problem in handwriting among children. Children can develop these skills which are visual perception and finger hand movement, but then again they have trouble integrating between these two skills.