The Effects of Environment on Psychometric Performance in Masvingo Province

Kumbirai Makaruke
The Effects of Environment on Psychometric Performance in Masvingo Province

Copyright © 2012 Kumbirai Makaruke
All rights reserved. No part of this book may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without written permission from the publisher.

Dissertation.com
Boca Raton, Florida
USA • 2013

DEDICATION

I dedicate this project to my beloved husband, Akim and my son, Darrell for the support they gave me during my studies.
ACKNOWLEDGEMENTS

I would like to express my heartfelt gratitude to Prof F. Zindi for his wisdom in the supervision of this thesis. My special thanks go to all the participants whose involvement enabled the realisation of this project. I am also indebted to Dr J. Matambo for the role he played in offering me financial support during my studies.
ABSTRACT

The study examined the effects of rural and urban orientations on pupils’ performance on WISC-R (a standardised intelligence test). The study made use of an experimental method. The data were collected on a sample of 100 primary school pupils (50 rural and 50 urban). The participants were from grade 5 and had an average age of 10 years. The independent variable was the environment in which the pupil was raised. The dependant variable was the performance of the pupils on the WISC-R intelligence test. The control group of the study was the rural pupils whilst the urban based pupils were the experimental group. Participants from the two backgrounds were each tested on WISC-R’s 10 subtests. The results showed a significant difference in performance on WISC-R between the two groups. The urban group scored in the superior range whilst the rural group scored in the lower range in all the subtests.
CONTENTS

DECLARATION ........................................................................................................................................... i

CERTIFICATE OF APPROVAL ............................................................................................................... ii

DEDICATION ........................................................................................................................................... iii

ACKNOWLEDGEMENTS ................................................................................................................ iv

ABSTRACT .............................................................................................................................................. v

CONTENTS .............................................................................................................................................. vi

CHAPTER 1 .......................................................................................................................................... 1

1.1 Introduction ...................................................................................................................................... 1

1.2 Statement of the problem ..................................................................................................................... 2

1.3 Aim .................................................................................................................................................. 2

1.4 Objectives ....................................................................................................................................... 2

1.5 Hypothesis ....................................................................................................................................... 3

1.6 Significance of the study ..................................................................................................................... 3

1.7 Assumptions ..................................................................................................................................... 3

1.8 Delimitations .................................................................................................................................... 3

1.9 Definition of terms ............................................................................................................................. 4
3.3 Data collection procedure ................................................................. 20

3.4 Pilot Study ..................................................................................... 21

3.5 Data Processing and Analysis ....................................................... 21

3.6 Ethical Considerations .................................................................. 21

CHAPTER 4 ............................................................................................ 23

4.0 Results Presentation and Discussions ........................................ 23

4.1 Introduction ................................................................................... 23

4.2 Comparisons of the two groups’ performance on specific WISC-R variables (subtests) ........ 23

4.2.1 Information .............................................................................. 23

4.2.2 Similarities ............................................................................ 25

4.2.3 Arithmetic ............................................................................. 26

4.2.4 Vocabulary ........................................................................... 27

4.2.5 Comprehension ..................................................................... 28

4.2.6 Picture Completion ............................................................... 29

4.2.7 Picture Arrangement ............................................................ 29

4.2.8 Block Design ......................................................................... 30
CHAPTER 1

1.1 Introduction

Psychometrics involves the measurement of intelligence, personality, attitudes, aptitudes and interests (Anastasi, 1988). A standardized instrument is recommended when measuring these attributes. Psychometric testing in particular, is very crucial in schools. It is useful for screening purposes, identification of gifted children, identifying learning or teaching problems and hence to facilitate intervention in the form of remedial programmes, if need be.

Wechsler Intelligence Scale - Revised (WISC-R) is an example of a psychometric test that is widely used in Zimbabwean schools by psychologists to determine appropriate placement of pupils. WISC-R provides a measure of general intellectual functioning. It consists of a verbal scale and a performance scale. The verbal scale measures information, similarities, arithmetic, vocabulary and comprehension while the performance scale consists of picture completion, picture arrangement, block design, object assembly and coding. Approximately 50 to 75 minutes are required to administer a test of 10 subtests (Wechsler, 1976). However, time taken to administer a test may vary depending on the examiner’s techniques of administering and also the children’s test taking styles. Results from the verbal and performance scale together give a full scale Intelligence Quotient (IQ) (Simpson, et al 2002).

The same WISC-R tests are used in both the rural and the urban schools in Zimbabwe. Rural areas in Zimbabwe are home to mainly small scale farmers with very low disposable income. The poverty, coupled with poor or sometimes non-existent electricity network makes access to information in rural areas very difficult. However, the situation in urban areas is generally