Students and Sports: The Association between Participation in Sports and Academic Achievement

A thesis presented in partial fulfilment of the requirements for the degree of

Master of Educational Psychology

At Massey University, College of Education, Albany

New Zealand.

By

Vibha V. Prasad

2012
Declaration

I certify that the thesis entitled “Students and Sports: The Association between Participation in Sports and Academic Achievement” submitted as part of the degree of Master of Educational Psychology is the result of my own work, except where otherwise acknowledged, and that this research paper (or part of the same) has not been submitted for any other degree to any other university or institution.
Abstract

Previous studies have found that participation in sports is positively associated with academic achievement for students. Due to the lack of studies in the New Zealand context and few studies examining Intermediate School students, the purpose of the current study was to examine the associations between the level of participation in sports and mean grades for Intermediate students. Data were obtained from self-report measures on sports participation and academic achievement. These data were gathered via anonymous questionnaires which were completed by students (n=86) from two different Intermediate Schools in Auckland. Results from the Independent Samples T-Tests revealed that male sports participants achieved significantly higher mean grades overall; and higher maths grades, than male non-sports participants. Further, and not surprisingly, sports participants from the high decile school achieved higher grades than students from the lower decile school. Simple Linear Regression revealed that the frequency of sports played per week was positively associated with mean grades. Results were therefore consistent with previous studies confirming the value of sports participation.
Acknowledgements

It is a pleasure to thank all those who made this thesis possible. I would like to thank my supervisor, Dr. Steven G. Little, for his advice and guidance towards completing this thesis. I would also like to thank the schools that agreed to participate in this study. I am very grateful towards the Deputy Principals of both schools who were very accommodating and supportive. Furthermore, this thesis would not have been possible without the participants; therefore, I would like to thank the students who participated in the study for their time and effort.
Table of Contents

Declaration .................................................................................................................. ii
Abstract ..................................................................................................................... iii
Acknowledgements ................................................................................................... iv
List of Tables ............................................................................................................. vii
List of Figures .......................................................................................................... viii
Introduction ............................................................................................................. 1
  Overview of General Studies ................................................................. 3
  Theory ................................................................................................................. 5
  Psychological and Cognitive Benefits ..................................................... 6
  Neurological Benefits......................................................................................... 7
  Physical Activity and On-task Behaviour ............................................... 7
  Gender .............................................................................................................. 8
  Ethnicity ............................................................................................................ 9
  SES .................................................................................................................. 10
  Core Subjects ................................................................................................. 11
  Sport Type and Number of Sports ......................................................... 12
  Time Spent ...................................................................................................... 12
Purpose of Current Study .................................................................................... 13
Research Questions ............................................................................................ 13
Hypothesis ............................................................................................................ 14
Method ................................................................................................................ 15
  Participants ...................................................................................................... 15
  Materials .......................................................................................................... 18
  Procedures ...................................................................................................... 20
Data Analysis ............................................................... 21

Results ........................................................................... 23

Independent Samples T-Test .......................................... 24

Simple Linear Regression .............................................. 28

Multiple Linear Regression .......................................... 31

Summary of Results .................................................... 31

Discussion ................................................................. 32

Implication of Results on Hypotheses ......................... 32

General Implications of Results .................................. 33

Comparisons with Previous Studies ............................ 36

Limitations ............................................................... 36

Future Recommendations .......................................... 38

Conclusion ............................................................... 39

References ............................................................... 40

Appendix A ............................................................... 44

Appendix B ............................................................... 47
List of Tables

Table 1  Demographic Breakdown of Participants from each School………. 17
Table 2. Percentage of Students Within each Sporting Variable for each School ................................................................. 18
Table 3a Analyses used to evaluate the relationship and effect of sports participation on mean academic grades ......................... 22
Table 3b Independent Samples T-Test used on different Independent and Dependent Variables ................................................. 22
Table 4 Differences in mean grades between sports and non-sports participants for male, female, high decile and low decile students….. 23
Table 5 Between-Decile Comparison of Mean Grades between Sports and Non-Sports Participants ............................................. 25
Table 6 Comparison of Mean Grades and Maths Grades between Male Sports and Non-Sports Participants ................................ 27
Table 7 Correlations of Variables with Mean Grade from Simple Linear Regression Analyses ....................................................... 29
Table 8 Correlations and Significance of Participation in Sports, Number of Sports, Frequency Played and Time Spent with Mean Grade ........ 31
List of Figures

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 1</td>
<td>The difference in mean grades between male sports participants and male non-sports participants</td>
<td>25</td>
</tr>
<tr>
<td>Figure 2</td>
<td>The difference in mean grades between sports and non-sports participants from low and high decile schools</td>
<td>26</td>
</tr>
<tr>
<td>Figure 3</td>
<td>The difference in mean English grades between female and male sports Participants</td>
<td>27</td>
</tr>
<tr>
<td>Figure 4</td>
<td>The difference in mean mathematics grades between male sports participants and male non-sports participants</td>
<td>28</td>
</tr>
<tr>
<td>Figure 5</td>
<td>The trend of mean grades across the number of times sports are played per week for all students</td>
<td>30</td>
</tr>
</tbody>
</table>