

**Development, implementation and evaluation of  
youth development programmes to address health  
risk behaviour among grade 8 to grade 10 learners  
in selected schools in the Paarl area**

**Hamilton Pharaoh**



A thesis submitted in fulfilment of the requirements for the  
degree of Doctor Philosophiae in the Department of  
Physiotherapy, University of the Western Cape

Supervisors:

Professor Jose Frantz

Dr Mario Smith

November, 2014

## Abstract

**Background:** There is consensus internationally and among South African researchers that engagement in health risk behaviours amongst the youth is a concern from a public health perspective. It is evident that many health risk behaviours are established during adolescence, and may continue into adulthood, affecting health and wellbeing in later life, and some preventable health behaviours may be contributory causes of morbidity and mortality. Research into the development of programmes can play a major role in reducing health risk behaviour amongst the youth and also provide a key learning opportunity should this be driven with bigger impetus by the building of research knowledge. Research knowledge needs to inform all stakeholders as to the best evidence-based possibilities that can assist in creating the behavioural change that is envisaged. This study therefore aimed to design, evaluate the feasibility of, and implement, a comprehensive youth development programme that will help to equip learners with the skills to change health risk behaviour in selected schools in the Paarl area, through input from all the stakeholders. The objectives of the study were to 1) obtain baseline information of grade 8 –10 learners about the health risk behaviours they engage in, and the extent to which learners manage personal situations; 2) explore the views of stakeholders regarding the type of health risk behaviours learners engage in, and reasons for engaging; 3) To determine the content of school-based interventions reported in literature, and its effectiveness in reducing or delaying these behaviours amongst the youth; 4) To design a youth development programme based on the views of the stakeholders and literature; 5) To evaluate the feasibility of the youth development programme designed in objective 4; 6) To implement a youth development programme.

**Method:** This study adopted Intervention Mapping as a framework that translated into a five phase study. Each phase informed the next and the findings culminated in the proposed youth development programme for grade 8-10 learners in the Paarl area. Phase 1 used a survey to obtain baseline information about the health risk behaviours that youth engage in and the extent to which learners manage personal situations. The survey was administered using the face-face method and included a

demographic questionnaire, the Youth Risk Behaviour Surveillance Survey and the Life Effectiveness Questionnaire. Descriptive statistics such as Frequencies and cross tabulations were performed, as well as inferential statistics including Multiple Regression analysis and Chi-square tests. Phase 2 entailed concept mapping using focus groups and individual interviews with stakeholders to determine their perceptions of the health risks learners engage in and the reasons for their behaviours. The sample included learners, teachers, and community representatives. Thematic analysis was conducted with transcriptions of the focus groups. Phase 3 entailed a systematic review of the literature reporting on interventions aimed at delaying and or preventing engagement in health risk behaviours amongst youth. Phase 4 entailed the triangulation of the findings from the first three phases into a draft programme. Phase 5 included a Delphi study with life skill trainers and experts in the field of health risk programming for adolescents. The Delphi survey was conducted in two rounds. After the feedback in round one, revisions were made to the draft programme to develop the final programme.

**Results:** The results in phase 1 resonated with the findings in the existing body of literature with regards to the health risk behaviours that learners engaged in. Smoking, drinking, sexual activity, drug use, physical inactivity, crime and violence were the most prominent HRBs reported by learners in this sample. Regression analyses indicated that the combination of the LEQ's life skill domains (Time management, Achievement, Emotional control, Social competence, Active initiative, Self-confidence, Intellectual flexibility and Task leadership) significantly explained between 25% and 56% of the variance in the health risk behaviours (smoking, drinking, drug use, sexual activity). Gendered patterns in engagement with drinking, drug use and risky sexual behaviour was empirically supported by the results of Chi square tests. Drinking and drug use was significantly more prevalent with male learners whilst risky sexual behaviour was significantly more prevalent amongst female learners. Results from phase 2, represented by a concept map suggested that the development of programme content should start with contextual relevance achieved by understanding the range of HRBs youth engage in. This in turn allows for an exploration of the pathways in which engagement has come about. The second and third quadrants illustrate this through their focus on the reasons why youth engage in HRBs and the places where they are exposed to HRBs respectively

Once the content has addressed what they do and why they do it, the process of skills development can commence to combat engagement in HRBs. The resultant concept map has four quadrants where each quadrant represents a concept map that corresponded to the themes identified was conceptualized as interacting with one another. During the systematic review process it was identified that effective interventions included the following elements: multi-theoretical approaches, multiple HRBs as targets, gender differentiation, and life skills.

In phase 4 a concept map was created that assisted with the design of the programme. The findings from the Delphi study ratified the components included and determined that it was feasible. The recommendations included independent facilitators who have been trained in a specific skill set, avoiding the blurring of the boundary between teachers and facilitators, and a distinction between grades for the purposes of conceptualizing and presenting the programme. This resulted in the researcher augmenting the proposed programme to include independent facilitators; peer mentors; a staggered or tiered programme. These augmentations were substantial and made an immediate implementation not feasible. The scope of the revisions for developing a tiered or staggered programme was adopted as a recommendation, but was outside the scope of the present study in fulfilment of the requirements for a doctoral degree. Thus the final or revised programme only represents the initial level for grade 8 learners and the development process will continue using the same methodology in post-doctoral research. These include the development and accreditation of the training resources, selection and training of facilitators, and the clarification of the relative standing of facilitators in the school environment.

**Discussion:** Health risk behaviour engagement, the factors influencing that engagement and the development of a diverse youth development programme to delay, reduce or prevent it is in itself very complex. Add to it the fact that the youth live in an ever-changing environment where negative role modelling and exposure to health risk behaviour is an everyday occurrence. Structures have been identified in this study that can play a vital role in designing a youth development programme, as well as build on existing programmes. This study incorporated intervention mapping as a participatory design using both quantitative and qualitative methodologies that

speak to a high level of rigour and methodological coherence. The study yielded a rich data base with clear directives for future research that will make a significant contribution to the attempts to impact youth development programming and health risk behaviour amongst adolescents.

**Conclusion:** The findings of this study suggest that a multi-theoretical approach to programming that includes gender differentiation and the targeting of multiple HRBs is likely to be more effective in the reduction, delay and prevention of health risk behaviour amongst learners in grade 8-10. The resultant programme is tiered or staggered and differentiates between grades in conceptualization and implementation of the programme. The study presented the programme for the first tier with grade 8 learners and made clear recommendations for the way forward. The study makes an important contribution in its use of participatory methodology that includes stakeholder participation to create a more robust and comprehensive programme.

November, 2014

**Keywords**

Intervention mapping

Stakeholders

Health risk behaviour:

Youth

Adolescence:

Feasibility study:



## Declaration

I declare that ***Development, implementation and evaluation of youth development programmes to address health risk behaviour among grade 8 to grade 10 learners in selected schools in the Paarl area*** is my own work, that it has not been submitted for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged by complete references.

Name: Hamilton Pharaoh

Date: November 2014

Signed: \_\_\_\_\_



Witness: \_\_\_\_\_

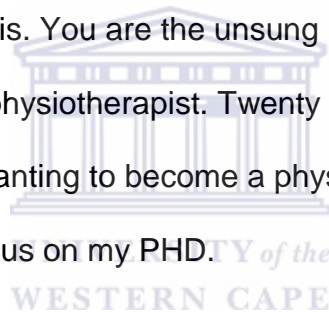
\_\_\_\_\_  
Prof. J Frantz (Supervisor)

\_\_\_\_\_  
Dr. M Smith ( Supervisor)

## Acknowledgements

I would like to thank my supervisors, Professor Jose Frantz and Dr Mario Smith, without whom this journey would have been meaningless. Your mentorship, invaluable guidance and support have not just merely made me a more equipped scholar but a better person. Thank you for allowing me the space to find myself and for being there when I was ready to complete this journey. Through you I could find my place to live out my dream of becoming more than I could ever imagined. Thank you very much to your families who allowed me to use their precious family time throughout this process.

Thank you Mrs Margaret Marais. You are the unsung hero who has dedicated your life to teaching us to become physiotherapist. Twenty four years after you interviewed me as a learner wanting to become a physiotherapist you helped with my teaching so that I could focus on my PHD.



Thank you to the staff at the Physiotherapy Department at UWC. Prof Anthea Rhoda your mentorship has been incredible. Prof Nicolette Roman the last year of my PHD you provided me with the support needed to keep focus. It has not gone unnoticed. Thank you to all the learners, schools and other participants for being involved in the study that ultimately culminates into my PHD Thesis. Without all your input this Thesis would not be possible.

Thank you to Mrs Patricia Thorne, Mrs Nicole Cedras and Miss Jane Warner your assistance during the gathering and capturing of data has not gone unnoticed.

Thank you Fahiem and Nazli Jeppie. Your friendship means the a great deal. Thanks for those last few hours supporting me till the end.

Thank you to my parents Clarence and Merle Pharaoh: The biggest gift any parent can give their child is education. Through you I have been able to live this wonderful dream firstly as a physiotherapist and now secondly through this journey as a PHD Scholar. I hope that I have made you extremely proud but most importantly I hope you know how much you mean to me and I am a product of your incredible love for me.

Thank you to my Wife Heidi and daughters Nicole, Bronwen and Lauren, Mother-in-Law Ouma Susie. All my attention for the past five years was dedicated to completing my PHD. You guys patiently supported me through this journey.



To God be all the glory. Without Him I am nothing. Only through the grace of God has this journey been possible.



## **Dedication**

For my parents Clarence and Merle and brother Courtley who mean the world to me.

For ouma Susie who shares her life with me loving me as her son.

For my daughters Nicole, Bronwen, Lauren and son Ryno who make me want to be a better person everyday

For my grandson Josh who makes me believe in miracles living life through his eyes

And finally to my wife Heidi who embodies all that is good in my life. Without you, life would be meaningless.



## TABLE OF CONTENTS

TITLE PAGE	i
ABSTRACT	ii
DECLARATION	vii
ACKNOWLEDGEMENTS	viii
DEDICATION	x
TABLE OF CONTENTS	xi
LIST OF APPENDICES	xix
LIST OF FIGURES	xx
LIST OF TABLES	xxi
<b>CHAPTER 1:        BACKGROUND AND ORIENTATION                          OF THE RESEARCH</b>	<b>1</b>
1.1    INTRODUCTION	1
1.2    BACKGROUND	1
1.3    PROGRAMMES ADDRESSING HEALTH RISK BEHAVIOUR	5
1.4    FRAMEWORKS TO ADDRESS INTERVENTION PROGRAMMES	10
1.5    PROBLEM STATEMENT	13
1.6    AIM OF THE STUDY	14
1.7    OBJECTIVES OF THE STUDY	14
1.8    SIGNIFICANCE OF THE STUDY	15
1.9    ABBREVIATIONS USED IN THE STUDY	15
1.10   DEFINITIONS OF TERMS	15
1.11   CHAPTER OUTLINE OF THE THESIS	17

<b>CHAPTER TWO</b>	<b>LITERATURE REVIEW</b>	<b>21</b>
2.1	INTRODUCTION	21
2.2	HEALTH RISK BEHAVIOUR	24
2.3	INTERVENTIONS / STRATEGIES USED TO COMBAT HEALTH RISK BEHAVIOUR	24
2.3.1	Sport as a tool in intervention programmes in health risk behaviour	24
2.3.2	Arts and Culture	27
2.3.3	Media	28
2.4	METHODOLOGIES TO INFORM INTERVENTION DEVELOPMENT	29
2.4.1	Systematic four-step method for intervention design	29
2.4.2	Intervention Mapping	30
2.4.3	Concept Mapping	31
2.4.4	Consensus Reaching	32
2.5	IMPACT OF POLICY ON YOUTH DEVELOPMENT	33
2.6	CONCLUSION	41
<b>CHAPTER THREE</b>	<b>METHODOLOGY</b>	<b>42</b>
3.1	OVERVIEW OF THE CHAPTER	42
3.2	AIM OF THE STUDY	42
3.3	OBJECTIVE OF THE STUDY	42
3.4	RESEARCH SETTING	43
3.5	STUDY DESIGN	43
3.6	POPULATION AND SAMPLING	44
3.6.1	Probability sampling	44
3.6.2	Non-probability	45

3.7	FRAMEWORK OF THE STUDY	46
3.8	PHASES OF DATA COLLECTION	52
3.8.1	Phase 1: Needs Assessment	53
3.8.2	Phase 2: Identifying performance objectives	53
3.8.3	Phase 3: Methods and strategies	55
3.8.4	Phase 4: Programme Development	58
3.8.5	Phase 5: Feasibility	59
3.9	DATA ANALYSIS	63
3.10	RELIABILITY AND VALIDITY	64
3.11	TRUSTWORTHINESS	64
3.12	ETHICAL CONSIDERATIONS	65
3.13	SUMMARY OF THE CHAPTER	66
<b>CHAPTER FOUR</b>	<b>BASELINE</b>	<b>67</b>
4.1	INTRODUCTION	67
4.2	METHODOLOGY	67
4.2.1	The study population and sample	67
4.2.2	Design	68
4.2.3	Data collection instruments	69
4.2.3.1	The Youth Risk Behaviour Surveillance Survey (YRBSS)	70
4.2.3.2	The Life Effectiveness Questionnaire (LEQ)	71
4.2.4	Data collection process	72
4.2.4.1	Piloting	72
4.2.4.2	Administration process	72
4.2.5	Analysis	73



4.3	RESULTS	75
4.3.1	Demographic information	75
4.3.2	Health Risk Behaviour	76
4.3.2.1	Personal Safety	76
4.3.2.2	Violence-related behaviour	77
4.3.2.3	Bullying	80
4.3.2.4	Sad feelings and attempts of suicide	80
4.3.2.5	Smoking	81
4.3.2.6	Alcohol	84
4.3.2.7	Dagga / Hashish use	85
4.3.2.8	Drug use (Cocaine)	86
4.3.2.9	Sexual Behaviour	88
4.3.2.10	Physical Activity	90
4.4	CROSS-TABULATIONS BETWEEN HEALTH RISK BEHAVIOUR AND IDENTIFIED DEMOGRAPHIC VARIABLES	92
4.4.1	Smoking and Age	92
4.4.2	Smoking and Gender	93
4.4.3	Drinking and Age	94
4.4.4	Drinking and Gender	94
4.4.5	Sexual Behaviour and Gender	95
4.4.6	Sexual Behaviour and Age	95
4.4.7	Drugs use (Cocaine and Dagga) and Gender	96
4.4.8	Drug use (Cocaine and Dagga) and Age	97
4.4.9	Physical activity and Gender	99
4.4.10	Physical activity and Age	99

4.5	PEARSON`S CHI-SQUARE ANALYSIS	100
4.6	LIFE EFFECTIVENESS QUESTIONNAIRE (LEQ)	101
4.6.1	Regression analyses	102
4.6.1.1	Model 1- Smoking	102
4.6.1.2	Model 2 – Drinking	104
4.6.1.3	Model 3 – Drug Use	104
4.6.1.4	Model 4 - Sexual activity	104
4.6.1.5	Model 5 – Physical activity	105
4.7	DISCUSSION	105
4.8	CONCLUSION AND RECOMMENDATIONS	109
<b>CHAPTER FIVE</b>	<b>CONCEPT MAPS OF STAKEHOLDER VIEWS</b>	<b>111</b>
5.1	INTRODUCTION	111
5.2	METHODOLOGY	111
5.2.1	Study population and sample	111
5.2.2	Design	112
5.2.3	Data collection methods	113
5.2.4	Data collection procedure	115
5.2.5	Data saturation and data analysis	116
5.2.6	Trustworthiness of the data	117
5.2.7	Reflexivity	118
5.3	RESULTS	119
5.3.1	Demographic data of the participants	119
5.3.2	Emerging themes	120
	Theme 1: Health risk behaviours that youth reportedly engage in	120

Theme 2: Reasons why youth engage in health risk behaviour	124
Theme 3: Places of exposure to health risk behaviour	126
Theme 4: Specific content or focuses of proposed programmes	128
5.4 DISCUSSION	130
5.5 CONCEPT MAPS	136
5.6 CONCLUSION	137
<b>CHAPTER SIX      METHODS AND STRATEGIES</b>	<b>138</b>
6.1 INTRODUCTION	138
6.2 METHODOLOGY	138
6.2.1 Inclusion Criteria	140
6.2.2 Exclusion Criteria	140
6.2.3 Data collection process	141
6.2.3.1 Database identification	141
6.2.3.2 Search terms	141
6.2.3.3 Search process	142
6.2.4 Methodological Quality Assessment	144
6.3 RESULTS AND DISCUSSION	145
6.3.1 General Descriptions of the Studies	148
6.3.2 Intervention Content	153
6.3.3 Empirical Evidence/Results	165
6.3.4 Theoretical Orientation	186
6.4 DISCUSSION	187
6.5 CONCLUSION AND RECOMMENDATIONS	190
6.6 LIMITATIONS OF THE REVIEW STUDY	192

<b>CHAPTER 7</b>	<b>DEVELOPMENT OF A YOUTH DEVELOPMENT PROGRAMME</b>	<b>193</b>
7.1	INTRODUCTION	193
7.2	DEVELOPMENT OF THE YOUTH DEVELOPMENT PROGRAMME	195
7.2.1	Health risk behaviours	195
7.2.2	Components of the intervention programme to be considered	197
7.2.2.1	Programme Structure	197
7.2.2.2	Domains	200
7.2.2.3	Participants	201
7.2.2.4	Theories	202
7.2.2.5	Foci	203
7.2.2.6	Wide Scope	206
7.3	DRAFT YOUTH DEVELOPMENT PROGRAMME	207
7.3.1	BACKGROUND	207
7.3.2	GOAL OF THE PROGRAMME	208
7.3.3	STRUCTURE OF THE PROGRAMME	208
7.3.4	OUTCOMES OF THE PROGRAMME	208
7.3.5	OBJECTIVES OF THE PROGRAMME	209
7.3.6	OVERALL PROGRAMME DESIGN	210
7.3.7	LEARNING ENVIRONMENT	211
7.4	CONCLUSION AND SUMMARY	217
<b>CHAPTER EIGHT</b>	<b>FEASIBILITY STUDY</b>	<b>218</b>
8.1	INTRODUCTION	218



8.2	METHODOLOGY	218
8.2.1	How many rounds?	219
8.2.2	The panel of experts	219
8.2.3	Process	220
8.2.4	Data Analysis	222
8.3	RESULTS	224
8.3.1	Demographic details	225
8.3.2	Results of Delphi round 1	231
8.3.3	Results of Delphi round 2	249
8.4	ADJUSTMENTS TO THE PROGRAMME	255
8.5	CONCLUSION	257
<b>CHAPTER NINE</b>	<b>EXECUTIVE SUMMARY &amp; CONCLUSION</b>	<b>259</b>
9.	EXECUTIVE SUMMARY	259
9.1	INTRODUCTION	259
9.2	SUMMARY OF PHASES	260
9.2.1	PHASE 1: UNDERSTANDING THE PROBLEM	260
9.2.1.1	Baseline engagement in Health Risk Behaviours	260
9.2.1.2	Life skills and engagement in Health Risk Behaviour	262
9.2.2	PHASE 2: Concept mapping	263
9.2.2.1	Peer pressure	264
9.2.2.2	The need to experiment	265
9.2.2.3	Family context (Lack of communication and dysfunction)	265
9.2.3	PHASE 3: Strategies and methods	266
9.2.4	PHASE 4: PROGRAMME DEVELOPMENT	267

9.2.5 PHASE 5: FEASIBILITY OF THE RECOMMENDED PROGRAMME	267
9.3 CHALLENGES TO IMPLEMENTATION	270
9.3.1 Skills of facilitators	270
9.3.2 Power relationships between teacher and student	271
9.3.3 Structural changes adopted	272
9.4 REVISED YOUTH DEVELOPMENT PROGRAMME	273
9.5 CONCLUSION	277
9.6 RECOMMENDATIONS	277
9.6.1 Understanding the problem	277
9.6.2 Intervention design	278
9.6.3 Intervention implementation	278
9.7 LIMITATIONS OF THE STUDY	278
9.8 DISSEMINATION (PUBLICATION AND PRESENTATION)	279
9.8.1 Publications	279
9.8.2 Presentations	279
<b>REFERENCES</b>	<b>280</b>



## LIST OF APPENDICES

<b>Appendix A</b>	Ethical Clearance Letter: University of the Western Cape
<b>Appendix B</b>	Permission letter Western Cape Education Department
<b>Appendix C</b>	Permission Letters Schools
<b>Appendix D</b>	Consent forms parents
<b>Appendix E</b>	Assent forms participants
<b>Appendix F</b>	Study Information Sheet
<b>Appendix G</b>	Non-disclosure participants Focus Groups
<b>Appendix H</b>	Review Protocol
<b>Appendix I</b>	Abstract summary form
<b>Appendix J</b>	Revised systematic review extraction form
<b>Appendix K</b>	YRBSS Questionnaire
<b>Appendix L</b>	LEQ Questionnaire
<b>Appendix M</b>	Verification letter of editing

## LIST OF FIGURES

<b>Figure 1.1</b>	Chapter organisation	20
<b>Figure 3.1</b>	Phases of the study	52 , 259
<b>Figure 3.2</b>	Brief overview of overarching methodology	62
<b>Figure 5.1</b>	Theme 1: Engagement in Health Risk Behaviour	131
<b>Figure 5.2</b>	Theme 2: Reasons for engagement in Health Risk Behaviour	132
<b>Figure 5.3</b>	Theme 3: Places where youth are exposed to engagement in Health Risk Behaviour	133
<b>Figure 5.4</b>	Theme 4: Content of youth development programmes	135
<b>Figure 5.5</b>	Concept Map	137
<b>Figure 6.1</b>	Diagram of Review Process	147
<b>Figure 7.1</b>	Design Structure Youth Development Programme	194
<b>Figure 8.1</b>	Process of the Delphi study	224
<b>Figure 9.1</b>	Developing Youth 4 Paarl (DY4P)	276

## LIST OF TABLES

<b>Table 2.1</b>	A description of the youth policies in South Africa	37
<b>Table 3.1</b>	Intervention Mapping Framework and relation to the study	48
<b>Table 3.2</b>	Comparisons of Reviews	57
<b>Table 4.2.4.1</b>	Likert scale	71
<b>Table 4.1</b>	Demographic information (n=1027)	75
<b>Table 4.2</b>	Personal Safety (n=1027)	77
<b>Table 4.3</b>	Violence-related behaviour (n=1027)	78
<b>Table 4.4</b>	Bullying (n=1027)	80
<b>Table 4.5</b>	Sad feelings and attempts of suicide (n=1027)	81
<b>Table 4.6</b>	Smoking (n=1027)	82
<b>Table 4.7</b>	Alcohol (n=1027)	84
<b>Table 4.8</b>	Dagga (n=1027)	86
<b>Table 4.9</b>	Drug use (1027)	87
<b>Table 4.10</b>	Sexual Behaviour (n=1027)	88
<b>Table 4.11</b>	Physical Activity (n=1027)	90
<b>Table 4.12:</b>	Frequency distribution for engagement in Health Risk Behaviour	
	(n=1027)	92
<b>Table 4.13</b>	Cross-tabulation: Age x Smoking (n=1020)	93
<b>Table 4.14</b>	Cross-tabulation: Gender x Smoking (n=1027)	93
<b>Table 4.15</b>	Cross-tabulation: Age x Drinking (n=1020)	94
<b>Table 4.16</b>	Cross-tabulation: Gender x Drinking (n=1027)	94
<b>Table 4.17</b>	Cross-tabulation: Gender x Sexual Behaviour (n=1027)	95
<b>Table 4.18</b>	Cross-tabulation: Age x Sexual Behaviour (n=1027)	96

<b>Table 4.19</b>	Cross-tabulation: Gender x Drug use (n=1027)	96
<b>Table 4.20</b>	Cross-tabulation: Gender x Dagga use (n=1027)	97
<b>Table 4.21</b>	Cross-tabulation: Age x Drug use (n=1027)	98
<b>Table 4.22</b>	Cross-tabulation: Age x Dagga use (n=1025)	98
<b>Table 4.23</b>	Cross-tabulation: Gender x Physical Activity (n=1027)	99
<b>Table 4.24</b>	Cross-tabulation: Age x Physical activity (n=1020)	100
<b>Table 4.25</b>	Individual Domain Scores	101
<b>Table 4.27</b>	Error variance explained in regression models	102
<b>Table 5.1</b>	Health Risk Behaviours that youth engage in.	121
<b>Table 5. 2</b>	Perceived reasons why youth engage in health risk behaviours	125
<b>Table 5.3</b>	Exposure to health risk behaviour	127
<b>Table 5.4:</b>	Specific content thought to be included in proposed youth programmes	128
<b>Table 6.1</b>	Keywords	142
<b>Table 6.2</b>	General Description of studies	149
<b>Table 6.3</b>	Intervention content	154
<b>Table 6.4</b>	Empirical Evidence	169
<b>Table 7.1</b>	Example of implementation of programme	215
<b>Table 8.1</b>	Profile of participants	226
<b>Table 8.2</b>	Measures of central tendency from Round 1 Delphi (n=15)	231
<b>Table 8.3</b>	Qualitative Responses from Experts Round 1 Delphi	235
<b>Table 8.4</b>	Round 2 Delphi Study n=14	250
<b>Table 8.5</b>	Responds from Experts Round 2 Delphi	252

## **CHAPTER 1**

### **BACKGROUND AND ORIENTATION TO THE RESEARCH**

#### **1.1 INTRODUCTION**

In this chapter the background supporting the need for this study is outlined. It highlights the literature that focuses on health risk behaviours that youth engage in, and documents the importance of intervention programmes to combat such behaviours. The broad aim of the study is given and the specific objectives are outlined. The significance of the study is the value it could add to the broader agenda of youth development programmes. Finally the terms included in this thesis are outlined in the chapter.



#### **1.2 BACKGROUND**

There is consensus internationally (Zulkifli & Wong, 2002) and among South African researchers (Reddy et al. 2010) that engagement in health risk behaviours amongst the youth is a concern from a public health perspective. Internationally, results from the United States 2013 national youth risk behaviour survey, indicate that many high school students are engaged in priority health risk behaviours associated with the leading causes of death among persons aged 10–24 years (MMWR, 2014). This is the most recent youth risk behaviour survey in the United States for the period September 2012 to December 2013, and it has found that the prevalence of some of the health risk behaviours has decreased and these included physical fighting, current cigarette use, and current sexual activity. However, the prevalence of other health risk behaviours, such as suicide attempts treated by a doctor or nurse, having ever used marijuana, and having drunk alcohol or used drugs before last sexual

intercourse have not changed. In addition, there has been an increase in risky behaviour such as having not gone to school because of safety concern as well as obesity and overweight. National surveys regarding a number of health risk behaviours have also emerged in Canada and Australia. In Australia, between 1997 and 2008, although there was an increase in student knowledge with respect to sexually transmitted diseases, the proportion of students reporting ever having had sexual intercourse had increased over time (Agius et al. 2010). There was also a significant increase in the number of sexual partnerships reported by students over a year, particularly for those in grade 12. In addition, estimates from Canada and the United Kingdom indicate that between 6% and 13% of adolescents smoke regularly, drink alcohol and use illicit drugs (Leatherdale & Ahmed, 2010; Fuller, 2009; McVie & Bradshaw, 2005). Brooks, Magnusson and Klemnera (2011) observed that by the time young people reach the age of 15 in England, 40% of them have tried smoking tobacco, 25% have tried cannabis, 63% have drunk some alcohol in the last 30 days, with 40% reporting more than two episodes of drunkenness and 27% of boys and 32% of girls having had sexual intercourse. These statistics thus indicate that there is a real basis for concern regarding the health risk behaviours that youth engage in.

In South Africa, the first Youth Risk Behaviour Survey (YRBS) conducted in 2002, was one of the first studies undertaken in South Africa, and possibly in Africa, to establish the prevalence of key risk behaviours affecting the country's youth (Reddy et al. 2003). This same study was repeated in 2008 among 10 000 learners from grade 8-11, and it found that adolescents in these grades engaged in risky behaviour (Reddy et al. 2010). 'Risky behaviour' included engaging in sexual practices (38%), being overweight (20%), considering suicide and attempting suicide (21%), and



smoking (30%). Learners who reported alcohol consumption numbered 50% for ever having drunk alcohol and 35% for having drunk alcohol in the past month, and 29% for having engaged in binge drinking in the past month (Reddy et al. 2010). The authors stated that although improvements had taken place when compared to the same earlier survey done in 2002, learners are continuing to engage in adult activity with no regard for the consequences of their actions that may affect them for life. In the case of many who actively participate in health risk behaviours, this could lead to the shortening of their lifespan. These marginal or small reductions in self-reported engagement in health risk behaviours still warrant continued concern about the risk status of adolescents despite investment from various governmental and non-governmental sectors (Department of Social Development, Department of Arts and Culture, Medical Research Council, and the Sports Coaches Outreach Organisation [SCORE]). It remains a focus point that needs an even bigger input from all concerned.



It is evident that many health risk behaviours are established during adolescence, and may continue into adulthood, affecting health and wellbeing in later life, and some preventable health behaviours may be contributory causes of morbidity and mortality (Grunbaum, Kann & Kinchen, 2001). Research focussing on health risk behaviour amongst the population as a whole and especially the youth, is therefore of utmost importance. Health risk behaviour can be defined as any activity undertaken by people with a frequency or intensity that increases risk of disease or injury (Stephoe & Wardle, 2004). It is important to understand risky behaviour, as Băban and Crăjun (2007) state that human behaviour plays a central role in the maintenance of health and the prevention of disease. Data published worldwide

concerned with health risk behaviour further emphasises the importance of immediate changes that need to take place. Physical inactivity is the fourth leading risk factor for global mortality (accounting for 6% of deaths globally). This follows high blood pressure (13%), tobacco use (9%) and high blood glucose (6%). Overweight and obesity are responsible for 5% of global mortality (WHO 2010). All these risk factors are present amongst South African youth.

In addition, youth or the adolescent period spans between 13 and 18 years and is characterised by rebellion, irritability, mood swings, and early exploration of risky behaviour (Omotoso, 2007). The crucial period for young people to protect themselves from the consequences of risky sexual behaviour is the period between first intercourse and first marriage (Kibombo, 2007). It is during this period that young people are involved in sexual experimentation, relationship instability, and a lack of access to health services (Guttmacher Institute, 2007). Several indicators define risky sexual behaviour, including the number of sexual partners (NASCOP, 2008); engaging in casual sex ; exchanging sex for goods or money (Family Health International, 2006); and sexual intercourse without the use of a condom (Taylor, 2009). It is thus clear that this added risk poses a real challenge for health educators and health promoters.

The challenge for the current administration in South Africa will be to effect a more substantial and enduring change following on the past 20 years. Although the period of adolescence seems to be filled with risk-taking behaviour, the curiosity and desire for novel experiences that fuel risk-taking also present tremendous opportunities for exploration, learning and development. Learning to become independent, for

example, is a very risky endeavour, but it is a key part of adolescence. Therefore the development of programmes can play a major role in reducing health risk behaviour amongst the youth and also provide a key learning opportunity should this be driven with bigger impetus by the building of research knowledge. Research knowledge needs to inform all stakeholders as to the best evidence-based possibilities that can assist in creating the behavioural change that is envisaged. According to Cummings (2003), family and school contexts as well as individual characteristics are associated with health and risky behaviours in adolescents. It is clear that when health and social service providers, educators and others consider health risk programmes for prevention of risk behaviour, the first steps should be to reduce risk factors and enhance protective factors for our young people.



### **1.3 PROGRAMMES ADDRESSING HEALTH RISK BEHAVIOURS**

Programmes developed to address health risk behaviours amongst youth have used many approaches which include psycho-education/ knowledge, attitudes, skills development, common determinants, and identifying theoretical frameworks. It is important that when designing youth development programmes, we understand that context matters. It matters whether a young person is growing up in an urban or rural setting, and in a high or low socio-economic status neighborhood. Environment, history and life events affect the experiences youth have, the challenges they face, the supports and opportunities they have access to, and the choices that they make. Health risk behaviour programmes thus need to take all these factors into consideration.

**Knowledge & Attitudes:** Knowledge or education has been a prominent focus of programming. Downing and Macfarlane (2010) believe that the vital importance of education cannot be overestimated for any individual. However, Madray and Van Hulst (2000) lodged the criticism that having education as part of intervention programmes to improve overall health and well-being of adolescents, does not necessarily change high risk behaviour. Three common findings emerge in the literature: First, authors have concluded that the knowledge base of everyone affected can be improved. Second, intervention programming has been successful in improving knowledge (Zulkifli & Wong, 2002, Frantz, 2011). Third, knowledge does not necessarily result in the adoption of recommended behaviours that can prevent or detect illness, as evidenced in a review of literature (Gordon, 2002). Although substantial effort is being made to educate every human being on the prevention of health risk behaviour, behavioural change is not taking place effectively to combat the spread of health risk behaviours. Growing evidence suggests that effective programmes orientated towards individual health behaviours require a multifaceted approach to helping people adopt, change, and maintain healthful behaviour. Green, Bazata, Fox and Grandy (2007) have reported that improved knowledge about essential behaviour to maintain health, co-exists with contra-indicated health risk behaviours. Having the knowledge does not necessarily translate into behavioural change.

**Skills development:** Life skills may be directed towards personal actions or actions towards others, as well as towards actions to change the surrounding environment to make it conducive to health. Life skills are an effective tool for empowering young people to make informed and responsible decisions about their own well-being. Life

skills training can be used to reduce or prevent high-risk behaviour and equip the youth with the confidence to engage in creative problem-solving to overcome social and economic barriers to self-development. Empirical evidence exists for the hypothesised beneficial effect of life skills in reducing health risk behaviour. For example, Hawkins et al. (1999) reported that a package of interventions with teachers, parents, and children, provided throughout elementary grades, could have an enduring effect in reducing violent behaviour, heavy drinking, and sexual intercourse by age 18 years among multi-ethnic urban children. The importance of skills development among adolescents has been recognised and reported upon by the World Health Organisation (WHO, 2014). The World Health Organization proposed 10 key actions for the health sector that would strengthen national responses to adolescent health, one including maintaining a positive perspective towards adolescents and involving them in decision making. The justification for this was threefold; it was based on the fact that most adolescents are healthy, that exploration and experimentation were part of growing up and developing, and those adolescents are an important resource for their own health and for their communities. The WHO therefore concluded that adolescents need to have the space and skills to be agents of change; they need to be listened to, and they need to be encouraged and supported to be active partners in developing and implementing policies and programmes to improve and maintain their health.

**Common determinants:** Gordon (2002) has identified four factors that address why people adopt or reject recommended preventive health behaviours, namely perceptions of risks; perceptions of self; physical and social environmental conditions; and perceptions of the costs or benefits of recommendations. It would be

an oversimplification to think that these factors are the only reason why knowledge does not always translate into behavioural change, but it does open the debate as to why knowledge alone does not affect behaviour change, as well as what other factors are needed to effect behaviour change in the longer term. Arthur et al. (2002) emphasise that many adolescent health behaviours share common determinants, suggesting that simultaneous interventions addressing multiple health behaviours may be a successful strategy. However, we are aware that literature indicates that the likelihood that adolescents engage in multiple health risk behaviours is related to age, and that many adolescents engage in these behaviours serially rather than at the same time (Brener & Collins, 1998). Programmes that promote healthy adolescent development can help to enhance a range of health behaviours among youth (Flay 2002; Roth & Brooks-Gunn, 2003). Ory, Jordan and Bazzarre (2002) have pointed out that the Behaviour Change Consortium (BCC), a collective of 15 National Institute of Health-funded behaviour-change projects, emphasises that multiple behaviour interventions are needed to move forward the field of behaviour change interventions.

**Theory and models:** Most theoretical models of health and risk behaviour, including Social Cognitive Theory (Bandura, 1994), The Health Belief Model (Rosenstock, 1974), the Theory of Reasoned Action (Fishbein & Ajzen, 1975), the Theory of Planned Behaviour (Ajzen, 1985), Self-Regulation Theory (Kanfer, 1970), and Subjective Culture and Interpersonal Relations Theory (Triandis, 1977) see individuals' judgements about risk as a fundamental element. The theories mentioned above claim that a key role in behaviour is played by the individual's beliefs about the consequences of their actions, and perceptions of their vulnerability

to these consequences, thus suggesting that perceptions of risk play and should play a fundamental role in behavioural intervention programmes. In these theories, attempts are made to get those affected to recognise and acknowledge their own vulnerability to negative outcomes. To be able to judge risks is considered an essential element of decision-making competence, according to theorists, researchers, and practitioners in the behavioural sciences, medicine, social work, law, and social policy (Gittler et al. 1990; Hodne, 1995). Literature highlights that theories, models or frameworks are needed in order to guide behaviour change interventions. Approaches to programming or intervention have included both asset building and deficit reduction. Findings from theoretical and applied research propose that an 'asset building paradigm' holds equal weight to a 'deficit reduction paradigm' when developing interventions. Therefore the focus should be placed on promoting positive youth development as well as reducing problem behaviours, in effective programming for youth (Benson, 1997). For example, during deficit reduction, the focus is on reducing health risk behaviour such as crime, violence and drug abuse that tend to be shaped and guided by professionals who implement strategies encouraged by national or state funding. It is often a 'top-down' change aimed at the marginalised or vulnerable youth. On the other hand, the mobilisation of community capacity to build developmental strengths places citizens and socialising systems at the centre of the action, with emphasis more on unleashing natural asset building capacity guided by a shared vision of 'what kids thrive on'. This paradigm more typically reflects a 'bottom-up' change process, with the accent less on implementation and more on unleashing, supporting and celebrating the inherent power of communities to be community (Benson 1997; Benson, Leffert et al. 1998).

**Context:** Risk-taking behaviour is sometimes a product of community socio-cultural beliefs and practices (Fraser-Thomas, Côte & Deakin, 2005) and may be caused by social and familial influences. This behaviour is tolerated in some contexts, while the same behaviour is strongly disapproved of or regarded as irresponsible or even immoral in other contexts. According to Estrada-Martinez et al. (2013), the understanding of risk and protective factors is significant for the development of interventions, and more importantly, although the social context also matters, they may differ across different ethnic groups.

#### 1.4 FRAMEWORKS TO ADDRESS INTERVENTION PROGRAMMES

Various frameworks have been identified in literature that can serve as guidelines for the development of programmes. Frameworks put forth by Fraser-Thomas, Côte, and Deakin (2005) and Petitpas, Cornelius, Van Raalte and Jones (2005) propose that positive development is enhanced when: (1) youth acquire developmental outcomes; (2) activities are conducted in appropriate contexts; and (3) when youth are surrounded by positive external assets, such as supportive relationships with coaches and peers. These frameworks reinforce the notion that positive development is the product of ongoing interactions between the person and the environment. In their review of previous literature, the National Research Council and Institute of Medicine (NRCIM, 2002) identified eight contextual setting features that can facilitate positive development in youth. These setting features were: 1) physical and psychological safety; 2) appropriate structure; 3) supportive relationships; 4) an opportunity to belong; 5) positive social norms; 6) support of efficacy and mattering; 7) opportunity for skill building; and 8) integration of family,

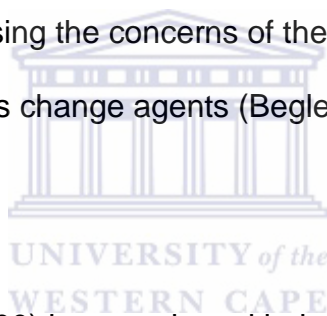


school, and community.

Some of the emerging models in literature include the Behaviour Image Model (Werch, 2007) and the Social Cognitive Model (Bandura, 2011). The Behaviour-Image Model (BIM) is an emerging and innovative paradigm for planning brief interventions for adolescents that fuse the prevention of harmful behaviours with the promotion of healthy habits. A criticism against the BIM is that when one is learning behaviour through remodelling, one must accept that good and bad behaviour are learnt, therefore accepting that the one behaviour can overshadow the other. It creates an opportunity to learn rigid behaviour, and therefore there is no opportunity for independent exploration to take place in the process. The Social Cognitive Model is a learning theory based on the idea that people learn by observing others. These learned behaviours can be central to one's personality. While social psychologists agree that the environment in which one grows up contributes to behaviour, the individual person (and therefore cognition) is just as important. People learn by observing others, with the environment, behaviour, and cognition, all being the chief factors in influencing development in a reciprocal triadic relationship. For example, each behaviour witnessed can change a person's way of thinking (cognition). The environment in which one is raised may influence later behaviours, just as a father's mind-set (also cognition) will determine the environment in which his children are raised. Criticism against the Social Cognitive Model is that the influence of hormones on one's behaviour and genetic differences that could lead to disparities between people's cognitive abilities and behaviour, is largely ignored.

It is of utmost importance that participants be taught to put the knowledge gained into practice. Literature over the years has highlighted how youth can be effectively used as change agents. A study by Israel and Ilvento (1995) reported that community projects involving the youth can assist in helping them better understand their own communities, and also provide them with insight and confidence to problem-solve the challenges facing their communities. A study by Makhoul, Alameddine and Afifi (2012) showed that youngsters are attracted to youth development programmes “because they are able to influence the lives of others”. Therefore it would be effective for health promoters to consider the role that youth can play in addressing the concern of translating knowledge into practice.

Programmes aimed at addressing the concerns of the youth must actively encourage the participation of the youth as change agents (Begley, Haddad, Christensen & Lust, 2009).



Harrison, Smit, and Meyer (2000) have reviewed behaviour change interventions and found that they can have a positive effect especially when they include information, education, communication programmes and health promotion initiatives. These authors suggested that interventions should develop negotiation- and decision-making skills especially among participants. Therefore to ultimately create an environment for behavioural change to occur, meeting the diverse and changing needs of individuals, as well as incorporating the characteristics of their social, cultural and physical environments that place them at risk, should become part and parcel of intervention programmes. Literature has emphasised that organised youth programmes, including community programmes and school-based extracurricular

activities, are contexts that can provide important developmental benefits for adolescents (Zarrett et al., 2009 & Durlak, Weissberg & Pachan, 2010).

Perkins and Borden (2003) defined community youth development programmes as purposeful environments that provide beneficial, positive, and encouraging positive relationships with adults and peers that are sustained. At the same time, they provide an array of opportunities that enable young people to build their skills and competencies, as well as enabling them to become partners in the development of themselves and their communities. Engaging multiple stakeholder groups in articulating the needs and content of a youth development programme is an important action in ensuring full participation. People's behaviour as individuals and collectively may then be easier to change. However, many attempts to do this have been unsuccessful, or only partially successful. Often, this has been because, as programmes are developed, programmes fail to take into account the principles of successful planning, delivery and evaluation (NICE Public Health Guidelines 6, 2007).

## **1.5. PROBLEM STATEMENT**

It is clear that young people partake in health risk behaviour, and that various intervention programmes have been attempted to combat this behaviour. However, health risk behaviour among young people continues to be a problem, and interventions have had mixed results. Specific recommendations for successful programming include the use of multi-behavioural programmes, active youth participation, a theoretical grounding, and the use of specific content such as skills education. Literature has highlighted some of the challenges and shortcoming that

have contributed to the limited success. It has been found that successful interventions need to be contextually relevant, have increased buy-in from all stakeholders, and have the potential to effect behavioural change not only at individual level but also at community level.

## **1.6 AIM OF THE STUDY**

The aim was to design, evaluate the feasibility of, and implement, a comprehensive youth development programme that will help to equip learners with the skills to change health risk behaviour in selected schools in the Paarl area, through input from all the stakeholders.

## **1.7 OBJECTIVES OF THE STUDY**

1. To obtain baseline information of grade 8 –10 learners about:
  - i. the health risk behaviours they engage in, and
  - ii. the extent to which learners manage personal situations;
2. To explore the views of stakeholders regarding the type of health risk behaviours learners engage in, and reasons for engaging;
3. To determine the content of school-based interventions reported in literature, and its effectiveness in reducing or delaying these behaviours amongst the youth;
4. To design a youth development programme based on the views of the stakeholders and literature;
5. To evaluate the feasibility of the youth development programme designed in objective 4;

## **1.8 SIGNIFICANCE OF THE STUDY**

While youth represent a population at significant risk of engaging in health risk behaviour, they also provide a window of opportunity for shaping the course of the prevention and reduction of risky behaviour. This study could add new knowledge to the already existing programmes that attempt to reduce engagement in health risk behaviour among the youth. It will attempt to address the gap between existing health risk reduction programmes and subsequent behavioural change when incorporating the positive youth development programme into intervention programmes. There is evidence that young people need assistance in making health decisions relating to risky behaviour in order to protect themselves. The final outcome of this study will be a diverse youth development programme that could be used to assist in the reduction of health risk behaviour among the youth in various communities



## **1.9 ABBREVIATIONS USED IN THE STUDY**

SCORE - Sports Coaches Outreach Organization

NYP – National Youth Policy

YRBSS – Youth Risk Behaviour Surveillance Survey

LEQ – Life Effectiveness Questionnaire

WHO – World Health Organisation

## 1.10 DEFINITION OF TERMS FOR THIS STUDY

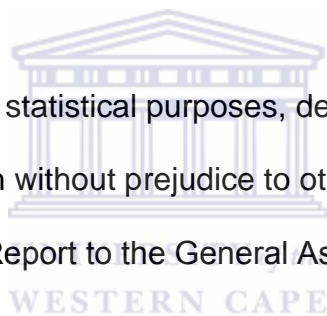
The most significant terms used in this study are defined below:

**Intervention mapping:** Describes a protocol for the development of theory- and evidence-based health promotion programmes (Bartholomew, Parcel & Kok 1998).

**Stakeholders:** A person, group or organisation that has interest or concern in an organisation/community (Post, Preston & Sachs 2002).

**Health risk behaviour:** Any activity undertaken by people with a frequency or intensity that increases risk of disease or injury (Steptoe & Wardle, 2004).

**Youth:** "the United Nations, for statistical purposes, defines those persons between the ages of 15 and 24 as youth without prejudice to other definitions by Member States" (Secretary-General's Report to the General Assembly, A/40/256, 1985).



**Adolescence:** The World Health Organization (WHO) defines adolescence as the period from 10-19 years of age. It is the period characterized by physical, psychological and social changes, and generally it is classified into two: early adolescence between 10-14 years and late adolescence between 15-19 years (WHO 2001).

**Feasibility study: Bryce (2008:)** makes the following statement about feasibility studies: "[A] feasibility study should provide management with enough information to decide the following: can the project be done; is the final product beneficial to its intended users; are there alternatives among which a solution can be chosen and is there is a preferred alternative".

## 1.11 CHAPTER OUTLINE OF THE THESIS

This thesis has been organized into nine chapters. A brief exposition of the content of each chapter follows.

**Chapter 1** provides a general overview and background of the current study and presents the problem statement. In this chapter a brief overview is given regarding programmes addressing health risk behaviour which include discussion on knowledge and attitudes, skills development, common determinants, theory and models, as well as context. Frameworks to address intervention programmes are also discussed before the problem statement is introduced. Finally the aim of this study and the objectives are defined and followed by the significance of the study.

**Chapter 2** presents an overview of literature on health risk behaviour and youth development programmes. This chapter further provides an academic rationale for the study by identifying the gaps in the literature that the proposed study will be addressing.

**Chapter 3** outlines the methodology used in the study. The study is conceptualized as five phases, informed by the theoretical framework. Each phase has its own methodological and design elements, and addresses a core objective. Each phase informs the succeeding phase. Included in this chapter are the data collection methods, the research setting, population and sampling as well as the framework used to underpin the phases. An overview of the specific methodology used for each of the phases is explained as a building block for the methodology discussions that will take place in the chapters to follow.

**Chapter 4** summarizes the methodology, results and discussion for the baseline quantitative data. An overview of the participants is provided and the health risk behaviours that young people engage in. In addition through the use of the Life Effectiveness Questionnaire (LEQ) the extent to which participants succeed in managing their lives using generic life skills was measured. These domains were time management, social competence, achievement, intellectual flexibility, task leadership, emotional control, initiative, and self-confidence. The result of the multiple regression analysis that was done is discussed pertaining to the relationship of the domains and the health risk behaviour that the participants engaged in.

**Chapter 5** explains the methodology, results and discussion of the phase that identifies performance objectives through the use of focus group discussions and the distilling of concept maps. In this chapter the health risk behaviour engagement and the factors that influence that engagement of the participants are explored. This engagement is further expanded through finding the contexts to which the participants are exposed to that engagement, and what is needed as focus areas to address the reduction of that engagement.

**Chapter 6** describes the systematic review that was used to identify the empirical evidence about the content of school-based intervention programmes for preventing, delaying and reducing engagement in health risk behaviours amongst adolescents. The results are discussed under the following headings: general descriptions of studies, intervention content, empirical evidence/results and theoretical orientation. The chapter is completed with a discussion section that captures the use of the



review information to inform the design of the youth development programme in the following chapter.

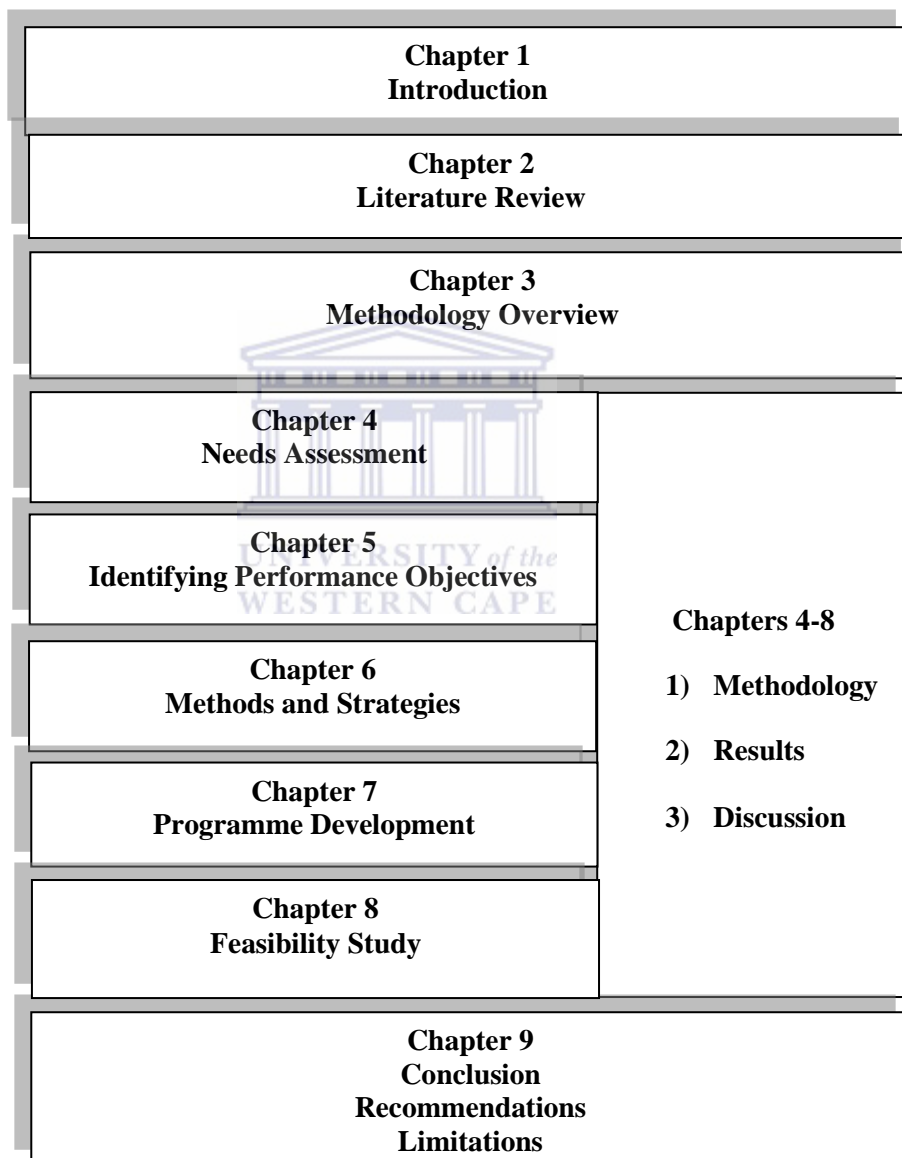
**Chapter 7** encapsulates the building blocks from Chapters 4-6 that inform the design of the youth development programme. A concept map illustrates the building blocks needed to design the programme, and the development is discussed under the headings of health risk behaviour and components of the intervention programme that need to be considered; these are programme structure, domains, participants, theories, foci, and wide scope. The chapter concludes with a draft youth development programme. The aim, purpose and outcomes of the programme are clearly defined. The programme components are illustrated, and are staggered in line with the guidelines and recommendations of the previous phases that formed part of the building blocks of the programme.



**Chapter 8** describes the process used in reaching consensus on the designed programme through a Delphi study. The methodology, data analysis and the Delphi process are defined and expanded upon. The results and discussion section elaborates on the consensus reached through the input from experts regarding the designed programme. The input from the experts is further discussed under the heading “adjustments made to the programme” where the combined quantitative and qualitative input from the experts further strengthens the feasibility of the designed youth development programme.

**Chapter 9** finally provides an overall conclusion of the research project, which includes recommendations and limitations of the study for future use. Figure 1 below illustrates the chapter organization.

**Figure 1.1 Chapter organisation**



## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 INTRODUCTION**

This chapter gives an overview of the literature that highlights the health risk behaviours of youth and their contribution to mortality. In addition the development of life skills and their importance are highlighted. The chapter also describes the impact of youth development policies in the South African context as well as current interventions for youth development. The theoretical orientations underpinning the youth development programmes are also discussed.



#### **2.2 HEALTH RISK BEHAVIOUR**

Placing the concern about risk behaviours amongst youth on the research agenda has a long track record. Adolescence has been characterised as a time of maturation between childhood and adulthood, and a critical period characterised by rapid growth and change with respect to physical, cognitive and social development (Brug & Wepp, 2007). Adolescence is also a time of both disorientation and discovery. In search of unique social identity and desire for social approval, teens are frequently upset, which may lead them to social isolation. Arnett (1999) described that in the professional literature, adolescence is frequently portrayed as a negative stage of life – a period of storm and stress to be survived or endured.

Young people engage in health risk behaviour without any regard for the consequences because they possibly do not see themselves as being at risk. There

is a growing body of empirical literature indicating that these risk behaviours do not occur independently, but tend to cluster in particular adolescents or groups of adolescents (Adlaf & Paglia, 2003; Galambos & Tilton-Weaver, 1998). Literature also points out that adolescents engaging in one health risk behaviour are at risk of engaging in other health risk behaviours (Kristjansson, Sigfustottir & Allegrante 2008).

Health-risk behaviours are major contributors to adolescent mortality as well as to the global burden of disease (Murray & Lopez 1997, Blum & Nelson-Mmari 2004). In 1988, globally, four causes accounted for 68% of all deaths among persons aged 1–24 years: motor-vehicle crashes (31%), other unintentional injuries (14%), homicide (13%), and suicide (10%) (MMWR, 2013). In 2008, of all deaths among persons aged 10–24 years, 72% were attributed to these four causes: 26% resulted from motor-vehicle crashes, 17% from other unintentional injuries, 16% from homicide, and 13% from suicide (CDC, 2009). In addition, it has been reported that one out of two young people who start and continue to smoke, will be killed by tobacco-related illness (SG Report 2014). Worldwide, 5% of all deaths of young people between the ages of 15 and 29 are attributed to alcohol use (WHO, 2014). In the United Kingdom (UK), those aged between 16 and 24 years are most likely to drink over double the daily recommended amounts on their heaviest drinking day in the previous week, an indicator of high levels of binge drinking at this age group (Craig & Hirani, 2010). Frequent drug use in the same age group is much higher than for older respondents (HSCIC, 2011). In 2010, 12% of the 135 million children born that year were born to women aged 15-19, and a further 32% were born to women aged 20-24 (UNAIDS

2010). The prevalence of forced first sex among adolescent girls younger than 15 years ranges between 11% and 48% globally (SG Report, 2012).

Young people make up the greatest proportion of the population in sub-Saharan Africa, with more than one-third of the population being between the ages of 10 and 24. Sub-Saharan Africa is the only region of the world in which the number of young people continues to grow substantially (UNICEF, 2012). Today, globally there are 1.6 billion people aged 12-24 – the largest generation of adolescents and young people ever. In 2010, young people aged 15-24 accounted for 42% of new HIV infections in people aged 15 and older. Among young people living with HIV, nearly 80% (4 million) live in sub-Saharan Africa (SG Report, 2012). Globally, young women aged 15-24, have HIV infection rates twice as high as young men do, and account for 22% of all new HIV infections and 31% of new infections in Sub-Saharan Africa (UNAIDS 2011). In some countries, up to 60% of all new HIV infections occur among 15-24-year-olds (WHO, 2014).

Health risk behaviours such as alcohol and substance abuse, unplanned pregnancies and unprotected sexual activities, are practised by the South African youth at a seemingly alarming rate. The Medical Research Council Report on Mental Health and Substance Abuse, Pretoria (1998) recognised that substance abuse was one of the biggest health and social problems in South Africa. The report further states that 5,8% of the South African population 15 years and older were alcohol dependent, and the general adult level of intake of drugs, and especially alcohol, was progressively increasing . A national health risk survey that was carried out among adolescents' grade 8-11 by Reddy et al (2010) data pertaining to learners

from Cape Town 31% engaged in alcohol abuse, 27% smoking cigarettes, and 7 % using cannabis. Among grade 11 students, 58% of males and 43% of females were sexually active (Reddy et al. 2010).

An additional threat facing South African youth is AIDS. Research carried out in secondary schools found that many learners were sexually active without protecting themselves, increasing the risk of becoming HIV infected (SA Health Info, 2008).

While epidemiological research on HIV/AIDS suggests a trend towards sexual behaviour modification, these studies lack the ability to tell us why and how such changes are taking place (Asiimwe-Okiror et al. 1997; Killian et al. 1999). To reduce risky behaviour, research needs to investigate barriers that seem to prevent this behaviour from changing. In addition, appropriate intervention programmes need to be designed.



## **2.3 INTERVENTIONS / STRATEGIES USED TO COMBAT HEALTH RISK BEHAVIOUR**

Various intervention strategies have been described in the literature to combat health risk behaviour, which include sports, arts, culture, and the media. Below is a brief discussion pertaining to the role of these interventions in combatting health risk behaviour.

### ***2.3.1 Sport as a tool in intervention programmes in health risk behaviour***

Sport has played a major role in the struggle against apartheid. The slogan “No normal sport in an abnormal society” was part and parcel of the fight against apartheid. In 1995 South Africa as a rugby nation won the Rugby World Cup, and the country for that period celebrated and was united. This was followed up by the

National Soccer Team winning the Africa Cup of Nations in 1996. South Africa has clearly had a history where sport can affect and change society. Jarvie and Maguire (1994) emphasised that sport and leisure activities are intricately linked to society and politics, and are an integral part of social life in all communities. These researchers added that the benefits of sport include improvement in “health, fitness, education, the fostering of non-violence, teamwork, respect, creation of business opportunities, employment, cross- cultural dialogue, understanding, unity, tolerance and peaceful co-existence”.

The declaration of the Fifth World Conference on Sport and Environment (Torino, Italy, December 2003), the so-called ‘Torino Commitments on Sport and Environment’, emphasised the role of sport in addressing “social and economic priorities such as the fight against poverty and the spread of HIV/AIDS; and in the promotion of social justice, human well-being and gender equity.” Sport was identified as an important tool to break down barriers, to promote self-esteem, to teach life skills and healthy behaviour. Athletes are called to act as role models for young men and women. These icons, stimulating awareness about HIV/AIDS, using the example of sport, can be linked to other health protection behaviours for young people.

South Africa has adopted the National Sport and Recreation Plan (NSRP). The NSRP specifically focuses on the following strategic objectives to assist with broadening the base of sport and recreation in South Africa:

- To improve the health and well-being of the nation by providing mass participation opportunities through active recreation;

- To maximise access to sport, recreation and physical education, in every school in South Africa;
- To promote participation in sport and recreation by initiating and implementing targeted campaigns.

According to Cameron and MacDougall (2000), sport and physical activity can have long-term benefits in the social development of young people. It is thus an important consideration that sport programmes can be designed to assist in guiding youth to have positive experiences. With clear norms and goals, sport is a context in which young people can be taught how to set personal goals and pursue personal development in life. An emphasis on personal improvement in sport can promote achievement without undermining moral behaviour, and could be used to assist in discouraging the adoption of several health risks. According to Fraser-Thomas, Cote and Deakin (2005), sport programmes should strive to create competent, confident, connected, compassionate, character-rich members of society. A study by Papaioannou et al. (2004) concluded that although sport is a context with positive health connotations, and is eminently suitable for health education, there are shortages in the current sport structure. Some of the shortages are that sports programmes often focus only on the promotion of health behaviours such as exercise, while they should include more emphasis on reducing health-compromising behaviours and promote health-enhancing behaviours. These are key aspects that need to be taken into consideration when designing effective youth development programmes.



### 2.3.2 Arts and Culture

The use of arts and culture can be another tool to introduce a variety of preventative activities. Guetzkow (2002:6) maintained that “community arts programmes are said to build social capital by boosting an individual’s ability and motivation to be civically engaged as well as building organisational capacity for effective action”. The author added that when researchers use arts and culture as a tool for intervention programmes, we should be sensitive to the context and the community being targeted. In various sectors, simulation and video game-based role-playing techniques have been proven effective in changing behaviour and enhancing positive decision-making in a variety of professional settings, including education, the military, and health care (Libin, Lauderdale, Mollo et al. 2010).

If we understand that health education and health promotion build on a social and cultural understanding of health and illness in our community, then the approach of incorporating various aspects of arts and culture to improve access to health-related information, knowledge and services, is absolutely essential. In order to bring about behavioural change, dissemination of a message should be accompanied by other supportive activities which facilitate the behaviour change process and that the audience can relate to. Activities classified as arts and culture include campaigns used to raise awareness about health issues among the youth through drama or role play. Through this process, a wide base of information can be distributed, for example, HIV/AIDS. In dramas and role play, information on how the disease is spread and basic facts about the virus are given in a way that the youth can relate to. This method also gives the chance to showcase healthy lifestyles, thereby strengthening health and the development of life skills. The young audience can see

in practice the impact of healthy choices, whether through seeing the role play or being an active participant in the acting in the play. Social education and life skills development is built into the programmes in arts and culture. In role play or dramas one is able to portray the importance of social norms and the use of life skills to assist in decision making. Through arts and culture the use of role play becomes an important tool to educate and assist the youth to understand, experience, and express the challenges that many of them face in their daily interaction in the community where they live.

### **2.3.3 Media**

Strasburger (2009) and Anderson et al. (2009) state that the media plays a vital role in adolescent health risk behaviour, with studies demonstrating its influence on a variety of health behaviours. Strasburger (2009) stresses the importance of the media taking more responsibility for the roles in adolescent health risk behaviour, such as advertising the effects of alcohol specifically for the youth. A selected group have certainly assisted in creating a wider awareness for youth about using alcohol. Parents also need to understand the impact the media can have on the development of their children, and play a more active role in preventing the impact of exposure to the wrong kind of advertising among their children. For this current study this brings about an important context to consider in the intervention programme that is going to be developed, and that is the use of the media to positively influence the reduction of health risk behaviour among the youth.

It is evident that various intervention programmes aimed at reducing health risk behaviour are at the forefront of assisting in creating behavioural change amongst

the youth globally. Therefore which methodologies to use ultimately rest with a clear understanding of what has been used and how effective it has been in bringing about change. Methodologies have to take into account all the necessary aspects needed to effect change and no one methodology is enough to incorporate all the factors that contribute to the health risk behaviour that the youth engage in.

## **2.4 METHODOLOGIES TO INFORM INTERVENTION DEVELOPMENT**

Designing interventions to change behaviour and improve the application of the knowledge gained remains a challenge. Various methodologies to create intervention development exist and often these have overlapping constructs. To date, various methodologies have been used with varied effects and these will be discussed below with varying examples.



### **2.4.1 Systematic four-step method for intervention design**

French et al. (2012) have suggested a four-step method to create an intervention design. Although this design was aimed at clinical behaviour change, it has similarities with behavioural change initiatives. The steps in this process are as follows: identifying the problem (who needs to do what, differently?); assessing the problem (using a theoretical framework, which barriers and enablers need to be addressed?); forming possible solutions (which intervention components could overcome the modifiable barriers and enhance the enablers?); and evaluating the selected intervention (how can behaviour change be measured and understood?). This method provides a systematic framework that could be used by others developing complex implementation interventions. The authors caution that the

framework should be iteratively adjusted and refined to suit other contexts and settings, but the four-step process should be maintained as the primary framework to guide researchers through a comprehensive intervention development process.

#### **2.4.2 Intervention Mapping**

Lloyd, Logan, Greaves & Wyatt (2011) point out that generally, intervention programmes fail to report on factors such as a rationale, development, theoretical basis, exact content, and method of implementation. Interventions that make extensive use of theory tend to have larger effects on behaviour (Taylor, Sahota, Sargent, Barber, Loach, Louch & Wright; 2013). The Intervention Mapping (IM) (Bartholomew, Parcel, & Kok; 1998) as a framework incorporates theory into intervention design, implementation and evaluation, and was applied by Taylor et al. (2013) in a study that attempted the development of a community-based childhood obesity prevention intervention for a multi-ethnic population. These authors concluded that making use of this approach produces a transparent and replicable intervention, whereby mechanisms of change can be investigated and identified, and practical applications used to manipulate them can be appropriately refined. The study demonstrated that IM is a feasible and helpful method for providing an evidence-based and theoretical structure for a complex health behaviour change intervention. In a study by Kok, Schaalma, Ruiter, & Van Empelen (2004) the authors indicated that although IM does not provide new strategies *per se*, it ensures that the content of the selected strategies is theoretically sound and linked to the objectives that were specified. These authors found that the careful use of IM guarantees that: (1) each programme objective is grounded on empirical evidence and theory; (2) the final materials and activities are linked with theory and have clearly specified

objectives; (3) all important objectives are covered; (4) the programme is compatible with the target population; and (5) diffusion issues are anticipated throughout the process. A study by Wolfers, van den Hoek, Brug and de Zwart (2007) using IM to develop a programme to prevent sexually transmittable infections, including HIV, among heterosexual migrant men, has shown that it is feasible to apply IM in the daily practice of the Municipal Public Health Service Rotterdam Area (MPHS) for the development of HIV/AIDS prevention interventions. These authors however indicated that IM requires more time than is usually available in the public health service, and sufficient theoretical knowledge and experience with technical IM aspects have to be available.

#### **2.4.3 Concept Mapping**

Kelly, Baker, Brownson and Schootman (2007) explain that concept mapping is a participatory method that community members and health practitioners can use to develop locally defined intervention strategies. From these strategies and action steps, evidence-based interventions can be developed in light of the optimal characteristics necessary within a community. The authors add that concept mapping is a useful method of canvassing for views about a local issue. This method can be time-consuming and somewhat labour-intensive, therefore, its use in the context of community–academic or community–agency partnerships may be more realistic. The process involves using a methodology termed ‘concept mapping’. Concept mapping is a mixed-methods planning and evaluation approach that integrates familiar qualitative group processes (e.g., brainstorming and pile sorting) with multivariate statistical analyses to help a group describe its ideas on any topic of interest and represent these ideas visually through a map (Trochim & Linton 1986;

Trochim 1989; Greene & Caracelli, 1997). In a study by Snider et al. (2010), concept mapping was used to generate information from youth who were grounded in experience through participatory research methods, and it was found to be feasible for the development of successful and meaningful youth violence prevention interventions.

#### **2.4.4 Consensus Reaching**

Lack of consensus about what constitutes an effective youth development programme and what its contributions to reducing health risk behaviour among youth are, can make it challenging to establish the relative cost effectiveness of different approaches or programmes. Various authors have used consensus reaching as an approach to define objectives for various health intervention programmes. In a study by Oliver et al. (2013) experts were invited as participants to assist in reaching consensus on whether the initial set of strategies to Recruit, Engage and Retain Children in behavioural Health risk factor studies (REACH) identified in the literature were successful for child recruitment and retention. Participants eligible for the Delphi study were internationally recognised public health researchers who conduct research related to children's physical activity, sedentary behaviour, dietary habits, and body size. Using three rounds of the Delphi, the authors could attain consensus amongst the experts on the REACH strategies as well as possible interventions that could be implemented. In a case study in India on the use of a modified Delphi technique for developing consensus on designing contents of a module for imparting sex education to adolescents in schools` it was concluded from the results that the Delphi technique, when rigorously administered, analysed and reported, is a valuable method to help policy planners in developing the process for a suitable

model that can be used for imparting sex education to adolescents in school (Saxena, Kumar, Rana & Shah, 2012). It is thus evident that consensus reaching can be used as an approach to identify the most suitable aspects of intervention programmes.

## **2.5 IMPACT OF POLICY ON YOUTH DEVELOPMENT**

As the impact of health risk behaviours in adolescence with regard to morbidity and mortality is recognised, it is evident that this public health concern is of substantial relevance for policy. The individual risk behaviours do not only pose a major burden for health and for the health services, but also for social services. In South Africa it has been recognised that the policy approaches should incorporate youth as an agenda item across all sectors. Several youth legislative policy frameworks such as the National Youth Commission (NYC), Act No. 19 of 1996; the National Youth Policy (NYP) 2000 and the National Youth Development Policy Framework (NYDPF) 2002/2007 was developed to guide the process of addressing the needs of the youth in South Africa (National Youth Policy, 2009). These policy frameworks ultimately led to the National Youth Policy 2009-2014. In focusing on the needs of young South Africans, the policy highlights priority target groups that include young women, youth with disabilities, unemployed youth, school-aged out-of-school youth, youth in rural areas, and youth at risk. The policy supports key interventions that will provide for holistic development of youth. The four pillars upon which the policy proposes specific interventions are education, health and well-being, economic participation, and social cohesion (National Youth Policy, 2009).

The holistic development of the youth as supported by the policies has to equip

learners with the necessary skills to develop to their full potential.

Dhawan (2014) stated that according to WHO that life skills are abilities for adaptive and positive behaviour, that enable individuals to deal effectively with the demands and challenges of everyday life. In particular, life skills are a group of psychosocial competencies and interpersonal skills that help people make informed decisions, solve problems, think critically and creatively, communicate effectively, build healthy relationships, empathize with others, and cope with and manage their lives in a healthy and productive manner. Life skills may be directed towards personal actions or actions towards others, as well as towards actions to change the surrounding environment to make it conducive to health.

Life skills are an effective tool for empowering young people to make informed and responsible decisions about their own well-being. Life skills training can thus be used to reduce or prevent high risk behaviour and give the youth the confidence to engage in creative problem-solving to overcome barriers (social and economic) to self-development.

### **Youth enterprise development strategy**

The Department of Trade and Industry introduced the Youth Enterprise Development Strategy (YEDS) as it was felt that South Africa is faced with the challenge of limited and poor participation of young people in the economy. The policy observes that as a result of the poor economic participation and persistent youth unemployment rate, young people are not acquiring the skills and work experience they need to assist in driving the economy forward (YEDS 2012-2023). The overall unemployment rate in the country stands at 25% and rises to about 36% if discouraged workers are included in the calculation (Labour Force Survey, September 2011). Youth



entrepreneurial activity in South Africa is low; this is reflected in the latest Global Entrepreneurship Monitor (GEM) report. Youth unemployment constitutes 73% of the total unemployment figure in the country. The policy instrument has as its aim the provision of support schemes for young entrepreneurs, to create and manage sustainable and efficient businesses able to provide decent permanent jobs and employment growth. This support includes: mentorship and coaching; youth business incubation; business infrastructure support; linkages to procure opportunities; youth entrepreneurship awards; youth entrepreneurship promotion and awareness; youth special projects and sector-specific enterprise creation; a national youth service programme; and the youth entrepreneurship collateral fund.

### **Integrated youth development strategy**

The Integrated Youth Development Strategy (IYDS) is being developed at an opportune time when the global community has made a commitment to youth development, and is deliberately aligned to this development. The African Union has declared the year 2009–2018 a ‘Decade of Youth Development’ on the continent. The IYDS has been developed to be a holistic and integrated strategy which should respond to all socio-economic needs of young people in South Africa. It is developed to be aligned with key national policy frameworks such as the National Youth Policy (NYP), the National Industrial Policy Framework (NIPF), the Industrial Policy Action Plan (IPAP), the New Growth Path (NGP), the National Skills Development-South Africa (NSD-SA), the National Skills Development Strategy III (NSDS) and many more. The aim of this policy was to facilitate, coordinate, lobby and monitor the implementation of youth development programmes and policies, as well as to initiate and implement strategic projects.


## **Western Cape youth development strategy**

Young people in the Western Cape face similar challenges to those in the rest of South Africa and globally. The risk-taking profile of Western Cape youth is higher than that in many other provinces. The YDS provides a platform and tool for developing policies and programmes for young people in the Western Cape. The purpose of the Western Cape YDS is to create more support, opportunities and services for all young people to better engage with their environment (external and internal) and successfully transition into responsible, independent, productive, healthy and stable adults. The strategy highlights the challenges facing our youth. It provides a framework for all stakeholders to rethink and reposition their services and support to ensure a coordinated and continuous basket of services and support to meet the needs of different age cohorts of youth, different categories of youth, and youth in different circumstances, especially those most in need. This requires a coordinated seamless programme over many years. The Western Cape YDS creates an important knowledge base from which research regarding youth can kick off. The five pillars that the strategy is centred upon pertain not only to youth in the Western Cape but also the rest of South Africa as well as the global world. The entire world is faced with the challenges that youth faces and the importance of interventions that address those challenges. This study takes into account the importance of the strategy and the pillars. The youth development programme intended to be designed will certainly have a stronger base to work from, by incorporating the knowledge and strategy provided above. The policies mentioned above have similarities and differences, and Table 2.1 below highlights the key objectives of each policy, the key stakeholders, and the identified implementation strategies.

**Table 2.1 A description of the youth policies in South Africa**

Policy	Aim	Key stakeholders	Specific Objectives	Strategies
<b>National Youth Policy</b>	To facilitate, coordinate, lobby and monitor the implementation of youth development programmes and policies, as well as initiate and implement strategic projects	Government departments  National Youth Development Agency  Non-governmental organisations  .Private organisations	<p>integrate youth development into the mainstream of government policies, programmes and the national budget</p> <p>ensure that mainstream policies function effectively and curb the marginalisation of young people</p> <p>strengthen the capacity of key youth development institutions and ensure integration and coordination in the delivery of youth services</p> <p>strengthen the capacities of young people to enable them to take charge of their own well-being through building their assets and ultimately realising their potential to the fullest</p> <p>strengthen a culture of patriotic citizenship among young people and help them to become responsible adults who care for their families and others</p> <p>support prioritised youth groups and ensure that they have every opportunity to play their part in the development of our country</p> <p>foster a sense of national cohesion, while acknowledging the existence of diverse circumstances and needs by providing opportunities to address these</p> <p>inculcate the spirit of patriotism by encouraging visible and active participation in different youth initiatives/ projects and nation-building activities</p> <p>promote the culture of treating all races in South Africa with dignity as well as embracing the African values, such as “ubuntu” at all times</p> <p>create a wider range of learning pathways to provide young people with multiple routes and exit opportunities for making the transition</p>	<p>identify gaps in the current policy and propose strategic policy interventions designed to fill them, thus speeding up further development of the youth</p> <p>define the targets of the new interventions</p> <p>address the continuous needs of the youth by focusing on areas where supplementary action is required</p> <p>ensure mainstreaming of youth development in programmes run by different key role players</p> <p>position policy implementation in the context of institutional responsibilities and processes</p> <p>map the process through which progress on policy implementation will be assessed</p> <p>specify the monitoring and evaluation (M&amp;E) mechanism for the purposes of accountability and continuous improvement of interventions.</p>

			<p>from youth to adulthood smoother</p> <p>design and implement interventions that seek to provide a wide variety of opportunities for needy young people</p> <p>create a safe environment free from discrimination and abuse, in which young people are protected from being exposed to forced or voluntary participation in crime and violence.</p>	
<b>Integrated Youth Development Strategy</b>	<p>Fundamental to the ideal of creating a society where all factors that put young people at risk are significantly reduced or completely eradicated, the NYDA will aim to create and maintain an environment in which all young men and women are given meaningful opportunities to reach their potential.</p> <p>The IYDS has been developed to be a holistic and integrated strategy which should respond to all socio-economic needs of young people in South Africa</p>	<p>Public Sector Government Departments at National and Provincial level Municipalities</p> <p>Private Sector</p> <p>State Owned Enterprises</p> <p>Civil Society Organisations / NGOs</p> <p>National Youth Development Agency</p>	<p>To promote a uniform approach by all organs of state, the private sector and civil society organisations;</p> <p>To facilitate endeavours aimed at job creation and economic freedom of youth;</p> <p>To outline parameters within which youth development programmes can be implemented;</p> <p>To initiate strategic anchor projects to benefit youth from disadvantaged backgrounds (rural, disabled, and young women) and guide programming for other stakeholders including private and civic society sectors;</p> <p>To provide a monitoring and evaluation framework and system which will enable coordinated nationwide reporting of youth development programmes' implementation in all sectors.</p>	<p><b>Economic Participation</b> To enhance the participation of young people in the economy through targeted and integrated programmes and support for social enterprises that focus on job development and placement, and other programmes that support youth development, including income-generating activities.</p> <p><b>Education and Skills Development</b> To promote access to quality education and skills to both in-school and out-of-school youth, including second chance opportunities</p> <p><b>Youth Work</b> To create an enabling environment for the recognition of Youth Work as a profession through ensuring the engagement of youth in meaningful activities that benefit their communities whilst developing their abilities and various other facets of their lives through learning and service, creating jobs and fostering patriotism.</p> <p><b>Health and Wellbeing</b> To improve the health and wellbeing of young people to allow them to productively lead fulfilling socio-economic lives associated with a responsible and sustainable nation</p> <p><b>Sport and Recreation</b> To ensure the promotion of sports, arts and culture and raise awareness on the economic value within the fraternity</p>

				<b>Social Cohesion and National Youth Service</b> To ensure patriotic participation and meaningful inclusion of all youth in the affairs of the country in a way that empowers them to build social capital and networks, and safer and more cohesive communities.
<b>Western Cape Youth Development Strategy</b>	The goal of the Strategy is that by the age of 25, youth in the Western Cape are inspired, educated, responsible, independent, healthy and productive citizens with positive personal, family and social relations.	<b>Provincial government</b> Overall coordination of the YDS and programmes, funding and rollout of flagships  <b>Local government</b> Local level coordination, funding and support for flagships Universities Education & training, volunteers, research and M&E role  <b>School Governing Bodies</b> Oversight of educational interventions  <b>Faith-based communities</b> Strengthening families and peer affirmation  <b>NGOs</b> Services providers across programmes  <b>Private sector</b> Jobs and skills training Functions	<b>Family foundations</b> To have a critical mass of parents with effective parenting skills and support networks to support positive youth development  <b>Education and training</b> To ensure youth are literate, numerate and prepared for life and work   <b>Economic opportunity</b> To provide opportunities for youth to have expanded work and labour market prospects  <b>Identity and belonging</b> To ensure youth are able to identify with positive influences in their lives which promotes a sense of belonging and agency  <b>Reconnection opportunities</b> To facilitate the reconnection of youth by providing effective services and support to reconnect, strengthen resilience and enable positive development	The family is a key institution in the lives of youth and its functioning impacts significantly on development trajectories  Education and training impact on young people's ability to find work and also the levels of income they can command. Access to quality education for all the Province's youth is therefore key to levelling the playing fields  Productive adulthood requires participation in the labour market. Youth bear a disproportionate burden of unemployment and require intermediation to assist them enter the labour market.  A positive sense of self is rooted in a sense of identity and belonging. In functioning societies youth are afforded a variety of opportunities to develop this sense of self. In dysfunctional contexts youth often fail to develop their sense of self and resort to unhealthy peer associations to create a sense of belonging. Given the endemic gang culture in the province this pillar focuses on providing alternative positive peer networks  Many youth grow up in dysfunctional environments without support. In the absence of positive ways to meet needs youth will often engage in risky or unhealthy coping strategies to meet these needs. They need special attention and targeted programmes and opportunities.

				They also require support to reconnect to positive development choices.
<b>Youth enterprise development strategy</b>	A South Africa that has a dynamic youth entrepreneurship culture and developed youth-owned enterprises, operating in all sectors of the economy, which contribute to economic growth, poverty reduction and employment creation as well as assisting in bringing about economic transformation and an equitable society.	<p>Department of Trade and Industry</p> <p>Provincial Department of Economic Development</p> <p>National Youth Development Agency</p> <p>Private Sector and State Owned Enterprises</p> <p>Youth Business Chambers and Associations</p> <p>Government Agencies</p>	<p>To increase the contribution of youth-owned and managed enterprises to the GDP of South Africa from a very low base of less than 5% contribution currently to 15% over the next 10 years (2013-2023);</p> <p>To increase the number of youth-owned and managed enterprise start-ups in all sectors of the economy from just less than 10% (i.e. 0,9% of 8,9% of RSA TEA index) of all new enterprises to 50% as measured by the TEA index of the GEM over the next 10 years (2013-2023);</p> <p>To increase the number of self-employed youth or entrepreneurs from the current low base of approximately 6%</p> <p>To increase savings and investment among youth by encouraging them to establish co-operatives and other forms of enterprise and minimize barriers that prevent young men and women from starting and growing their own businesses; to 20% over the next 10 years, as well as increase entrepreneurial culture, business managerial capacities, technical skills and talents among young people, thereby contributing to sustainable human development;</p> <p>To increase access to market, financial and non-financial support, including business infrastructure and procurement opportunities, to youth-owned and managed enterprises.</p>	<p>To mainstream the YEDS within the DTI and its agencies and all strategies and programmes geared for enterprise development at national, provincial and municipal levels.</p> <p>To strengthen and unleash the potential of the participation of youth in the economy by raising the value and the profile of youth-owned and managed enterprises and designing support programmes suitable for this end;</p> <p>To foster human capital development with a special focus on youth entrepreneurship, business management and technical skills;</p> <p>To foster a culture of partnership and collaboration among youth beneficiaries and other stakeholders through awareness-raising programmes; research; and business intelligence and assist with the evaluation and monitoring of the performance of youth enterprise development and entrepreneurship.</p>

It is clear from the perspective from the national government how important an investment in the youth of South Africa is. The policies further emphasise the importance of interventions that improve the capacity of the youth of South Africa. The policies tabled above show a clear overlap of how various strategies are envisaged to ultimately bring change among the youth of South Africa. The policies identify the importance of economic participation, education, and skills development, youth work, health and well-being, sport and recreation, social cohesion, and national youth services. They identify clearly the stakeholders needed to make an impact. These stakeholders overlap throughout the different policies, emphasising the importance of an integrated approach to open up the avenues for the youth to reach their full potential. These policies insist that the improvement of institutions that deliver services to the youth are of utmost importance, and this study can play an active role in addressing these needs.



## **2.6 Conclusion**

Reducing health risk behaviour; designing and implementing a youth development programme, cannot be based on a singular focus, theory, intervention or framework. It will need a comprehensive programme that incorporates a multi-faceted approach based on the current health risk behaviour that the youth engage in. Policies and strategies given as frameworks by the various institutions that play an integral role in the development of the youth in South Africa and more specifically in the Western Cape, need to be incorporated within the youth development programme. Finally addressing the needs and challenges of the youth is not an intervention based on the input from researchers or the government alone; it is an approach that will need input and assistance from all stakeholders – the youth themselves, parents, communities, churches and role models.



## **CHAPTER 3**

### **METHODOLOGY**

#### **3.1 OVERVIEW OF THE CHAPTER**

This chapter provides an overview of the methodological framework of the study.

The core methodological elements are identified to provide a coherent sense of the overarching study design, and a more detailed discussion is presented in the ensuing chapters.

#### **3.2 AIM OF THE STUDY**

The overall goal of the study was to design, evaluate the feasibility of and implement a comprehensive youth development programme that will assist in equipping learners with the skills for health risk behavioural change in selected schools in the Paarl area through input from all stakeholders.

#### **3.3 OBJECTIVES OF THE STUDY**

It is envisaged that through this study the following objectives would be achieved:

1. Obtaining of baseline information of grade 8 –10 learners about:
  - a. the health risk behaviours they engage in and
  - b. the extent to which learners manage personal situations;
2. Obtaining the views of stakeholders regarding the type of health risk behaviours learners engage in and reasons for doing so;
3. Determining the content of school-based interventions reported in literature and their effectiveness in reducing or delaying health risk behaviours amongst the youth;



4. Designing a youth development programme based on the views of the stakeholders and literature;
5. Evaluating the feasibility of the youth development programme designed in objective 4;

### **3.4 RESEARCH SETTING**

The study was conducted in Paarl, a town situated within Drakenstein Municipality. Paarl was selected as the research setting since it is one of the most densely populated areas of the Drakenstein Municipality, with slightly more than 130 000 inhabitants (Census 2011 Municipal Report). The Census 2011 Municipal report showed that 20 368 youth were aged between 10-14 years and 23 290 were aged between 15-19 years old. Currently the Paarl area is classified as peri-urban. Peri-urban is defined by Allen, Dávila and Hofmann, (2006b) as “where rural and urban features co-exist, in environmental, socio-economic and institutional terms’ (2006a: 21). This peri-urban setting was deemed appropriate as the setting for the study since this study consists of a large youth population. Programmes advertised by the Community Safety Departments of the Western Cape requesting interventions to combat risk behaviour have classified Paarl East as a high risk area for youth, together with areas such as Manenberg, Langa, and Bishop Lavis.

### **3.5 STUDY DESIGN**

In order to address the research question, the study used a sequential explanatory mixed method approach. According to Creswell, Clark, Gutmann and Hanson (2003), in this approach, the results from one method are used to help develop or inform another method. The mixed-methods sequential explanatory design consists

of two distinct phases – quantitative followed by qualitative (Creswell et al. 2003). In this study, the researcher first collected and analysed the quantitative data. The qualitative data was then collected and analysed second in the sequence, and helped explain, or elaborate on, the quantitative results obtained in the first phase. This process is clearly outlined by Ivankova, Cresswell and Stick (2006). Following this process, the information from both phases was used to develop an intervention, which was evaluated for feasibility. The research design was based on similar studies that aimed to design intervention programmes (Koekkoek et al. 2010).

### **3.6 POPULATION AND SAMPLING**

The study population consisted of various stakeholders including high school learners, teachers, community members involved in life skills training as well as other experts in the area of health risk behaviour interventions. Both probability and non-probability techniques were used relative to the aims and objectives of each phase. Within each of this study different sampling methods were used and will be described in the chapters to follow. However, a brief explanation of the overall sampling approach is provided here.

#### **3.6.1 Probability sampling**

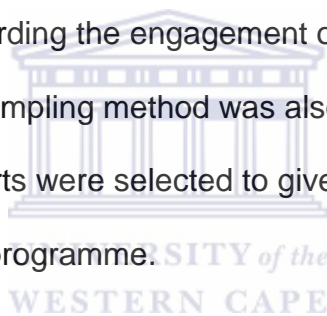
Probability sampling is defined as techniques that allow for every eligible person to have an equal chance of being selected for the study (Fowler, 2009). This defining is important in establishing a representative sample that can fairly accurately reflect the parameters of the population (Bless, Higson-Smith & Sithole, 2006). In Phase 1, probability sampling was employed since the aim was to gain an understanding of

the Health Risk Behaviours that the population of grade 8-10 learners in the Paarl are were engaged in. At this level it was important to establish a representative sample that would allow generalization to the population defined above and would be useful the purposes of the study and general or other uses. The sampling frame is important in determining representativeness and it is recommended that the sampling frame be as comprehensive as possible. Reduced sampling frames also impact the power of statistical analysis negatively (Babbie, 2007). The specific method of probability sampling employed was the simple random sample in which eligible participants were invited from a sampling frame (Bless, Higson-Smith & Sithole, 2006).

### **3.6.2 Non-probability sampling**

Nonprobability sampling is defined by the systematic way in which the researcher selects participants (Lewis-Beck, Bryman & Liao 2004). In other words, each member of a population has an unknown and unequal probability of being selected. In this instance, the aim is not to establish a representative sample for the purposes of generalization, but to allow the sampling technique to be informed by extraneous factors such as access and availability, logistics, ensuring an increased degree of participation and narrowly focused and specific inclusion criteria for samples (Babbie & Mouton 2001). In keeping with the aim of the study, specifically phases 2-5, purposive sampling was employed to ensure that productive members were recruited for participation whose contribution would reflect a high degree of participation and the nature of their contribution would also be estimated to be of a higher quality that would add value to the study (Babbie, 2007). These phases specifically included stakeholders and experts.

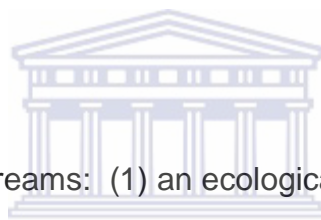
**Purposive sampling:** A purposive sample, also commonly called a judgemental sample, is one that is selected based on the knowledge of a population and the purpose of the study (Jones, 1955, Babbie 1990). The subjects are selected because of some characteristic. The individual characteristics are selected to answer necessary questions about a “certain matter or product” (MacNealy 1999). The usefulness of this method of sampling pertains to when a researcher wants to study “a small subset of a larger population in which many members of the subset are easily identified but the enumeration of all is nearly impossible” (Babbie 1990). Purposive sampling was used during phase 2 of the study when focus group discussions were done to ascertain the input from learners, teachers and life-skills trainers in the community regarding the engagement of health risk behaviour among learners in grade 8-10. This sampling method was also used during the feasibility phase of the study when experts were selected to give expert input regarding the designed youth development programme.



### 3.7 FRAMEWORK OF THE STUDY

This study adopted a framework to guide the process of data collection. The framework (Figure 3.1) is the intervention mapping framework by Bartholomew, Parcel & Kok (1998). The IM framework is a stepwise approach to describe the planned process for theory and evidence-based development, implementation and evaluation of health promotion interventions (Bartholomew et al., 2001). IM was first developed and introduced by Bartholomew, Parcel and Kok (1998) ([http://en.wikipedia.org/wiki/Intervention\\_mapping\\_-\\_cite\\_note-first\\_im\\_paper-2](http://en.wikipedia.org/wiki/Intervention_mapping_-_cite_note-first_im_paper-2)). The main goal of IM is to assist health promoters to develop the best possible intervention using planning, research and theory as key components. IM provides

a vocabulary for intervention planning, procedures for planning activities, and technical assistance with identifying theory-based determinants and methods for change (<http://en.wikipedia.org/wiki/Interventionmapping> - cite note-5). In the health promotion field, Intervention Mapping has successfully been applied to a wide range of different behaviours and populations in various settings. It may help planners develop theory- and evidence-based interventions to promote healthy behaviour. More specifically, IM ensures that theoretical models and empirical evidence guide planners in two areas: (1) the identification of behavioural and environmental determinants related to a target problem, and (2) the selection of the most appropriate theoretical methods and practical applications to address the identified determinants.




IM is focused on three main streams: (1) an ecological approach, (2) participation of all stakeholders, and (3) the use of theories and evidence. An ecological approach considers both social and physical environmental factors that influence a health problem. The question that needs to be answered is how one addresses changing behaviour in a community or certain environment. Furthermore how does one incorporate all the elements that are needed for that change to take place?

Interventions cannot only be implemented for those at risk but also those who are not, because everyone is important when it comes to changing conditions that affect those at risk. Incorporating all stakeholders plays a pivotal role in attempting to effect change. Since the 1990s, it has been recognised that prevention interventions should be developed systematically on the basis of evidence and theory (Green, 2005), because such a planned procedure substantially improves the chance of success (Kok et al. 2004).

**Table 3.1 Intervention Mapping Framework and relation to the study**

Steps	Relevance to current study	Explanation
Step 1Needs assessment	During this step the needs assessment provides the baseline information regarding the learners` engagement in health risk behaviour and the manner in which they manage personal situations	Establish a participatory planning group Conduct the needs assessment Assess community capacity Specify programme goals for health and quality of life
Step 2 the determinants of the health behaviour are used to set objectives for behaviour change, divided in broad performance objectives and concrete change objectives in terms of what a person needs to learn in order to change his or her behaviour.	During this step the reasons for health risk behaviour engagement are explored through focus groups with learners, teachers and life-skill trainers in the community. Important objectives can be set to bring about change.	State outcomes for behaviour and environmental change State performance objectives Select important and changeable determinants Create matrices of change objectives
Step 3, theoretical foundations and empirically	During this step rigorous assessment is being made regarding theory,	Generate programme ideas with the planning group

evaluated methods and strategies for behaviour change are assessed	programme ideas and methods, strategies and change objectives through a systematic review.	<p>Identify theoretical methods</p> <p>Choose programme methods</p> <p>Select or design practical applications</p> <p>Ensure that applications address change objectives</p>
Step 4, the methods and strategies are translated into an organised intervention.	<p>Through this step the researcher can collate and triangulate all the data and information gathered in the previous step in order to design the programme as set out as an objective of the study.</p> 	<p>Consult intended participants and implementers</p> <p>Create programme themes, scope, sequence, and materials list</p> <p>Prepare design documents</p> <p>Review available programme materials</p> <p>Draft programme materials and protocols</p> <p>Pre-test programme materials and protocols</p> <p>Produce materials and protocols</p>
Step 5, the adoption, implementation and sustainability of the intervention is planned	During this step the programme is adopted and implemented. Objectives and performance outcomes are measured	<p>Identify potential adopters and implementers</p> <p>Re-evaluate the planning groups</p> <p>State programme use outcomes and performance objectives</p> <p>Specify determinants for adoption and implementation</p> <p>Create a matrix of change objectives</p>

		<p>Select methods and practical applications</p> <p>Design interventions for adoption and implementation</p>
<p>Step 6, an evaluation plan is provided for and carried out</p>	<p>This step incorporates an evaluation process where the programme is monitored for sustainability and effectiveness. Adaptations are made as the monitoring process indicates or the need arises.</p>	<p>Review the programme logic model</p> <p>Describe programme outcomes</p> <p>Write effect evaluation questions</p> <p>Wrote process evaluation questions</p> <p>Develop indicators and measures</p> <p>Specify evaluation design and write evaluation plan</p>





In essence this looks like a linear process, but the authors see it as a process where planners move back and forth between tasks, with the accumulation of information from one phase to another used to inform and build the next one. This makes the focus on each phase very important because the lack of attention in one phase may lead to the following phase not being adequately contextualised and planned. IM was appropriate for the present study since it provided a framework for the development of an empirically and theoretically grounded programme that was also ecologically appropriate. In the present study a modified IM framework that only included the first five IM operational steps, was not implemented but was evaluated for feasibility.

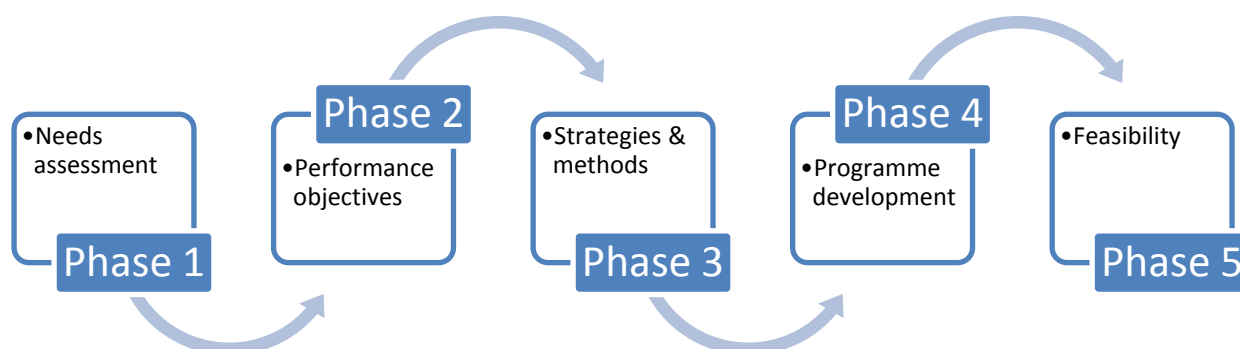
Thus the five phases included:

- 1) Needs assessment
- 2) Identifying performance objectives
- 3) Methods and strategies
- 4) Programme development
- 5) Feasibility of the designed programme.



The study was therefore conceptualised as consisting of five phases aligned with the modified intervention mapping as a framework. Each phase is developed independently with its own methodological elements. The findings from each phase were used to inform the next phase, as illustrated by Figure 3.1 below.

**Figure 3.1 Phases of the Study**



### **3.8 PHASES OF DATA COLLECTION**

#### **3.8.1 Phase 1: Needs Assessment**

The aim of this step of IM is to assess the health problem, its related behaviour and environmental conditions, and their associated determinants for the at-risk populations. The product of this first step is a description of a health problem, its impact on quality of life, behavioural and environmental causes, and determinants of behaviour and environmental causes. To this end, the study adopted survey methodology to obtain baseline information of grade 8–10 learners about the health risk behaviours they engaged in, and the extent to which learners managed personal situations. Survey methodology is a systematic approach to collecting quantitative data that will provide statistical information about a population . Surveys make it possible to sample large populations and gather a wide range of information. It is relatively easy to administer and economical. Disadvantages include the fact that a survey used from the very beginning as well as the method through which it is administered cannot be changed (Sincero 2012). This inflexible design can however also be seen as an advantage as both precision and fairness can be exercised in the study. The use of the survey in this study was appropriate as it assists in

gathering information from a large sample group in a cost-effective manner. The use of the survey made it further possible to gain a wide range of information pertaining to health risk behaviour and the factors associated with that engagement through this singular data collection method.

### **3.8.2 Phase 2: Identifying performance objectives**

The second phase of IM is the definition of programme (change) objectives based upon scientific analyses of health problems and problem-causing factors. To this end, concept mapping was adopted to achieve the objectives of this phase and the second objective of the study. Concept maps are graphical tools for organising and representing knowledge (Novak and Canas, 2008). They include ideas or concepts usually enclosed in circles or boxes of some type, and relationships between concepts or propositions, indicated by a connecting line between two concepts. Words on the line specify the relationship between the two concepts. Concepts are defined as a perceived regularity in events or objects, or records of events or objects, designated by a label. A concept map (Novak, 1998) can be used to frame a research project, reduce qualitative data, analyse themes and interconnections in a study, and present findings. “A concept map is a schematic device for representing a set of concept meanings embedded in a framework of propositions” (Novak and Gowin, 1984, p. 15). One of the strengths of using concept maps in qualitative research is that it allows the researcher to reduce the data in a meaningful way. Using concept maps in the data reduction process allows for the visual identification of themes and patterns. For example, in a study of how different professionals learn in their practice, concept maps were created of each interview. This allowed researchers to

compare how nurses, adult educators, social workers, and lawyers learned (Daley, 2001).

The process of concept mapping is sensitive to the structural nature of participants' knowledge (Patton, 1990) and from the relationships among concepts in participants' minds, misconceptions or alternative concepts can be identified (Duit, Treagust & Mansfield, 1996). Concept maps can be used to qualitatively depict the knowledge structures of mapmakers (stakeholders) through the explicit illustration of a 'visuo-spatial' network of propositions (Duit et al. 1996). Englebrecht et al. (2005) describe concept mapping as a descriptive approach with five distinct phases. These phases are: a preparation phase; a generation or brainstorming phase; a structuring phase where statements are sorted and ranked on the dimensions of importance for the study; an analysis phase which results in a concept map; and finally an interpretation phase where the results are analysed in a session facilitated by a facilitator. The present study used a modified version of concept mapping to identify qualitative concepts from sessions with identified stakeholder groups. During the preparation phase, the authors read extensively in the focus area of the study to formulate the focus prompts for a focus group discussion with various stakeholders. The second phase incorporated qualitative methods such as focus group discussions and in-depth interviews to generate participant responses to the focus prompts. The analysis phase incorporated thematic analyses of transcripts and the distilling of concepts generated from the three participant groups.

### **3.8.3 Phase 3: Methods and strategies**

A systematic review is a “high-level overview of primary research on a particular research question that tries to identify, select, synthesize and appraise all high quality research evidence relevant to that question in order to answer it”

(Cochrane Collaboration, 2013). Hale, Fitzgerald-Yau and Viner (2014)

systematically searched nine biomedical and social science databases (1980-2012) for primary and secondary interventions that prevented or reduced two or more adolescent health risk behaviours (tobacco use, alcohol use, illicit drug use, risky sexual behaviour, aggressive acts). Forty-four randomised controlled trials of universal or selective interventions were identified and were effective for multiple health risk behaviours. Most were school-based, conducted in the United States, and effective for multiple forms of substance use. Effects were small, in line with findings for other universal prevention programmes. In some studies, effects for more than one health risk behaviour only emerged at long-term follow-up. Integrated prevention programmes are feasible and effective and may be more efficient than discrete prevention strategies. In a study by Maher, Lewis, Ferrar, Marshall, De Bourdeaudhuij and Vandelanotte (2013) a systematic review took place to explore “Are health behaviour change interventions that use online social networks effective?” The dramatic growth of Web 2.0 technologies and online social networks offers immense potential for the delivery of health behaviour change campaigns. However, it is currently unclear how online social networks may best be harnessed to achieve health behaviour change. The review found that very modest evidence exists that interventions incorporating online social networks may be effective; however, this field of research is in its infancy.

As mentioned earlier, this phase of IM is dedicated to the selection of theory-based intervention methods and practical applications to change determinants of health-related behaviour. To this end, the Systematic review methodology was adopted to execute this phase of the present study. A systematic review is a “high-level overview of primary research on a particular research question that tries to identify, select, synthesize and appraise all high quality research evidence relevant to that question in order to answer it” (Cochrane Collaboration, 2013).

This was an appropriate methodology for this phase since it provided a systematic evaluation of methodological rigour to identify good quality research on interventions. In this way an empirical base of literature could be established that could report on the content, theoretical orientations and efficacy of intervention programmes aimed at reducing engagement in health risk behaviour among youth. A systematic review enabled the researcher to establish clear inclusion and exclusion criteria for eligible studies. In addition, bias was minimised by setting and following explicit systematic search and evaluation strategies in an effort to effectively answer the proposed research question.

Table 3.2 below compares the use of traditional reviews with systematic reviews and is summarised under the headings: review; characteristics; uses; and limitations.

**Table 3.2 Comparisons of Reviews**

Review	Characteristics	Uses	Limitations
Traditional literature review / narrative review	Describes and appraises previous work but does not describe specific methods by which the reviewed studies were identified, selected and evaluated	Overviews, discussions, critiques of previous work and the current gaps in knowledge often used as rationale for new research. To scope the types of interventions available to include in a review.	The writers assumptions and agenda often unknown. Biases that occur in selecting and assessing the literature are unknown. Cannot be replicated.
Systematic review	The scope of the review is identified in advance (eg review question and sub groups analyses to be undertaken). Comprehensive search to find all relevant studies. Use of explicit criteria to include / exclude studies Application of established standards to critically appraise study quality Explicit methods of extracting and synthesising study findings	Identifies, appraises and synthesises all available research that is relevant to a particular review question. Collates all that is known on a given topic and identifies the basis of that knowledge Comprehensive report using explicit processes so that rationale, assumptions and methods are open to scrutiny by external parties. Can be replicated / updated	Systematic reviews with narrowly defined review questions provide specific answers to specific questions. Alternative questions that have not been answered usually need to be reconstructed by the reader

The advantages of a systematic review are that it reduces bias, is replicable, can resolve controversy between conflicting studies, identifies gaps in current research, and provides a reliable basis for decision making. It also has its disadvantages: results may still be inconclusive; there may be no trials/evidence; the trials may be of poor quality; the intervention may be too complex to be tested by a trial, and practice does not change just because one has the evidence of effect/effectiveness.

#### **3.8.4 Phase 4: Programme Development**

The aim of this step of the IM was to design a youth development programme which should include a description of the scope and sequence of the components of the intervention, completed programme materials, and programme protocols. This step demands careful reconsideration of the intended programme participants and the programme context. The first three steps in the IM built upon each other in gaining information that would ultimately form the basis of the designed programme. The design of the Youth Development Programme was informed through these processes:

- The needs assessment phase whereby the health risk behaviour the learners engage in and the extent to which they manage personal situations were investigated.
- Identifying performance objectives phase whereby the stakeholders who form part of the study i.e. the learners, teachers and community members responsible for life skills training to combat HRB were invited to participate in FGD to assist in addressing the information gathered through the needs assessment phase.



- Methods and strategies phase with the objective to ascertain what informs the content of school-based interventions reported to be effective in preventing health risk behaviours among the youth through a systematic review.

The information gained through these steps was then encapsulated into a concept map that described the important areas to be considered, and included designing a youth development programme to combat health risk behaviour. Consequently, this led to a more informed basis for identifying priority areas for future development of youth intervention programmes, research and implementation thereof.



### **3.8.5 Phase 5: Feasibility**

Dalkey and Helmer (1962) first used The Delphi method while working for the Rand Corporation, during which a four- or five-round Delphi procedure was used. Brooks (1979) and Pfeiffer (1968) later determined that the Delphi method provided valid results with only three rounds. At present the use of the Delphi method has expanded to a wider audience as it is also used in studies related to health care, communications, public relations, education, and scientific disciplines (Kennedy, 2004; Yang, 2003). According to Addler & Ziglo (1996), the Delphi method is suitable to produce information that is useful for decision making, through a series of questionnaires aimed at experts. Frantz (2007) found it useful to explore the attitudes and needs of groups regarding the challenges facing physiotherapy education in a variety of African countries. The Delphi method has been used to build consensus and consistency of opinion

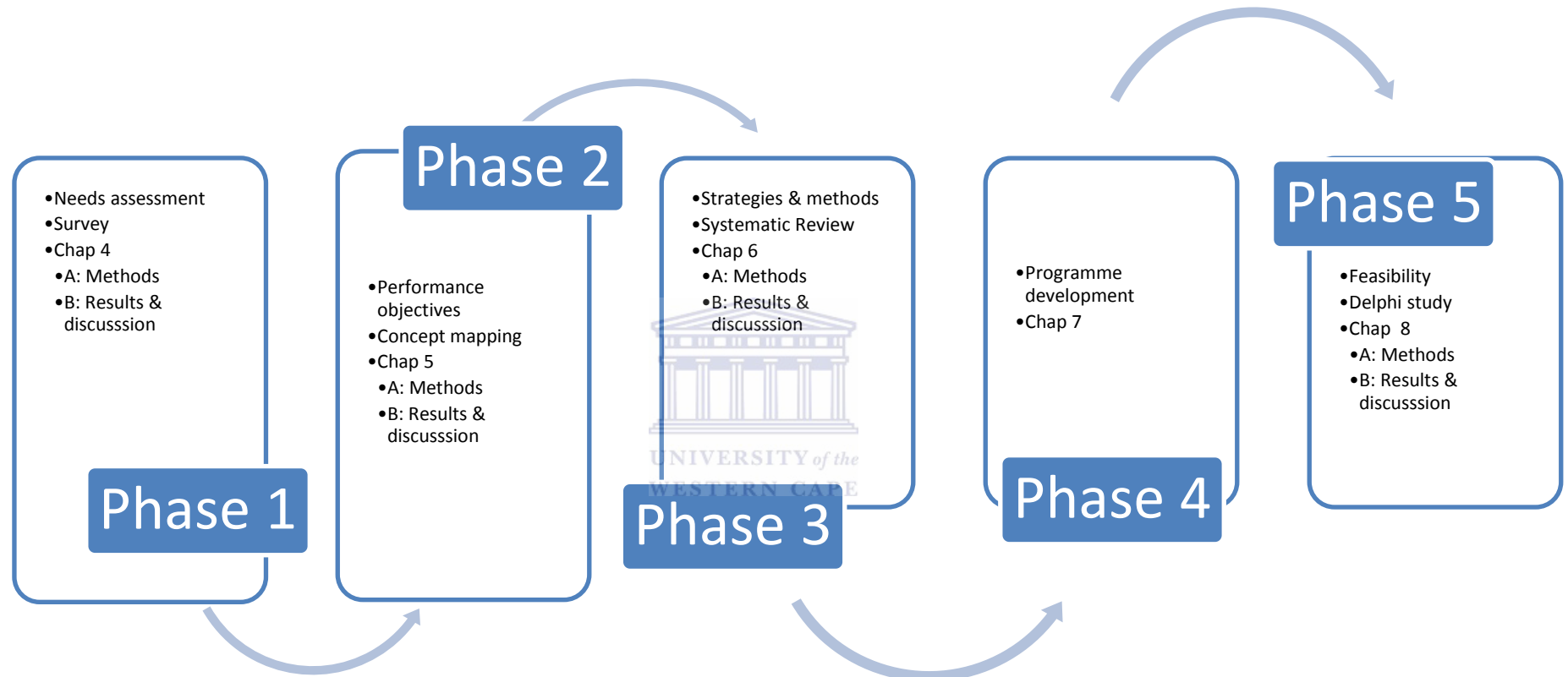
from a group of experts regarding an area of interest or enquiry (Yang, 2003, Hasson, Keeney & McKenna, 2000; Winzenreid, 1997). The Delphi technique takes the experts through a round of questions. During round one, open-ended questions are sent to the experts (panel of informed individuals) pertaining to a topic. The experts could be requested in round 1 to comment on the feasibility of a programme and specific questions could be asked. The researcher on receipt of the responses of the experts then collates the information and compiles it in a systematic manner in relation to the questions asked during the round. Round two of questioning provides the experts with the compiled responses from round one. The experts are then requested to comment, rank or make an evaluation on the responses created following round one. The comments, ranking or evaluations are returned to the researcher who then compiles this in relation to what was requested during round two. During the compilation, the mean for each response is calculated for the group. This phase thus starts building consensus. The data indicating group comments, ranking or evaluations, is sent back to the experts for the third round of questions. During this period experts are provided with an opportunity to review the consensus of the group, reflect on their individual responses, and indicate any changes in response. When the third round of data is returned to the researcher, a final compilation is made that provides the researcher with the group consensus. The Delphi method provides an expert panel with the opportunity to give feedback confidentially, receive group feedback through which the expert can compare his or her own responses. A final consensus can be developed based on the group and individual input of each expert on the panel, and through this process hopefully new thinking or ideas are explored. This is an appropriate method of gaining

expert opinion and consensus around important aspects pertaining to the design of an intervention as described in this thesis (Dalkey & Helmer, 1962; Dalkey, 1969; Linstone & Turoff, 1975; Lindeman, 1981; Martino, 1983; Young & Jamieson, 2001).

During this current study it was envisioned that three rounds would be used to gain expert opinion regarding the designed youth development programme. This study therefore used the Delphi method to develop consensus on the feasibility of a youth development programme that was developed to assist in the reduction of health risk behaviour among youth in high schools in grade 8-10. Through this method a panel of experts could give input as to: (i) the scope of the programme, (ii) the content of the programme, (iii) the approaches to be used in the implementation of the programme, (iv) the implementation strategy of the programme, (v) the resources needed for the implementation of the programme and (vi) the costing involved to implement the designed programme.

This concludes the brief overview of the overarching methodology. Figure 3.2 below reflects the phases and their respective methodological elements. Chapters 4–8 will report on the specific methods of data collection and analysis employed in each phase, with the results and recommendations for the next phase. The figure further indicates how the chapters were allocated.

**Figure 3.2 Brief overview of overarching methodology**



### 3.9 DATA ANALYSIS

Descriptive statistics, specifically frequencies and percentages, were used to summarise demographic data, engagement in risk behaviours, and life skills domains. The data from the YRBSS was subjected to frequency distributions, cross tabulations and Chi-square tests for significant differences. Multiple regression analysis was used to assess whether life skills (LEQ data) could significantly predict engagement in health risk behaviours for this sample.

Focus group and interview transcripts were analysed using content analysis.

Recurrent themes were identified as they emerged from the data. Themes were collated into four subsidiary concept maps that were graphically represented in one meta-figure.

Quantitative data from the Delphi study was presented depicting means and modes. Central tendency is defined by Gravetter & Wallnau (2000) as “the statistical measure that identifies a single value as representative of an entire distribution”. It aims to provide an accurate description of the entire data. The mean, median and mode are the three commonly used measures of central tendency. The qualitative data was grouped under the components of the programme. Recurrent themes were identified and colour-coded to illustrate themes that were grouped together. The data from the Delphi is illustrated in the form of tables.

### **3.10 RELIABILITY AND VALIDITY**

Two validated self-administered questionnaires that had been used in similar studies globally and in South Africa, namely the Youth Risk Behaviour Surveillance Survey (YRBSS) (Brener et al. 2002; Reddy et.al, 2008) and the Life Effective Questionnaire (LEQ) (Neill, Marsh & Richards,1997) were used during phase 1 of the study to obtain baseline information regarding health risk behaviour among high school learners in grade 8-10 in high schools in the Paarl area. A pilot study was conducted to test the understanding of learners regarding the questions and to ascertain whether the answers of learners depicted the questions asked.

### **3.11 TRUSTWORTHINESS**

The aim of trustworthiness in a qualitative enquiry is to support the argument that the enquiry's findings are "worth paying attention to" (Lincoln & Guba, 1985).

Trustworthiness involves credibility, transferability, dependability, and confirmability.

Credibility refers to creating confidence in the 'truth' of the findings. To address

credibility the researcher invited all possible stakeholders to participate and

contribute to the study in order to gather data that best represented the topic being

researched. This technique, while not meeting the technical definition of

'triangulation' (Lincoln & Guba, 1985), provided a richer and more credible data set

than if information was only obtained from one source. In addition, the study aimed

to pilot the designed youth development programme for its feasibility and

implementation using a Delphi study. Member checking was also us, and

participants were given the opportunity to review a summary of the final results of the

interviews. To address transferability, the complete set of data analysis documents

were filed and were available upon request. To address the issues of dependability

and conformability, the researcher relied on an independent audit of the research methods by competent peers, the supervisors of the study. All information generated was thoroughly examined by the supervisors and this included the original transcripts, data analysis documents, comments from the member checking, and the text of the dissertation itself.

### **3.12 ETHICAL CONSIDERATIONS**

Ethical clearance was requested from the Research Ethics Committees and Higher Degrees Committees of the University of the Western Cape (Project number 10/6/2 Appendix A). Permission to conduct the study was obtained from the Western Cape Education Department (Appendix B), Principals and governing bodies of the schools involved (Appendix C). During the needs assessment phase of the study, informed written consent was obtained from parents (Appendix D) and informed written assent from the participants (Appendix E). All participants throughout the various phases of the study were informed that their participation was voluntary and that they could choose not to participate or withdraw at any stage during the study without any consequences. A detailed explanation of the purpose of the study was provided to each participant throughout the process (Appendix F). Confidentiality and anonymity were assured. Participants in the focus group discussion signed a non-disclosure statement for confidentiality purposes to make them conscious of the ethical procedures in advance (Appendix G). This research project involved making audiotapes during the focus group discussions. To help protect the participants' confidentiality, all audio tapes were stored in a locked filing cabinet, with only the researcher having access to it. The results of the study will be made available to all relevant stakeholders.

### 3.13 SUMMARY OF THE CHAPTER

This chapter describes the methodological framework of the study. The study was conducted with high school learners, teachers and life-skills trainers in the Paarl area as participants. Both quantitative and qualitative methods were employed through the use of surveys, focus group discussions, individual interviews, and systematic reviews. Experts in the field of health risk behaviour and youth development were also participants through the use of a Delphi method that was used to determine the feasibility of the designed youth development programme. The chapters to follow describe and discuss the various phases, methodologies and results in detail.





## **CHAPTER 4**

### **BASELINE**

#### **4.1 INTRODUCTION**

Chapter four sets out to meet objective one of the study and that is to obtain baseline information of grade 8 to grade 10 learners as it relates to (a) the health risk behaviours they engage in and (b) the extent to which learners manage personal situations. This chapter will describe the specific methodology that was followed to collect and analyse the data gathered, the results of the data collection and finally a discussion of the results. This chapter acts as a starting point whereby information is collected that will ultimately inform the chapters that are to follow.



#### **4.2 METHODOLOGY**

##### **4.2.1 The study population and sample**

The study was conducted in secondary schools in the Paarl area. In the Paarl area there are 10 secondary schools. The WCED offices in Worcester provided enrolment totals of 5736 learners for grades 8-10 in the 10 schools (personal communication, 10 February 2010). Thus the study population was comprised of grade 8, 9 and 10 learners registered for the 2010 academic school year under the Western Cape Education Department (WCED) within the identified schools. All ten schools were invited to participate in this study of which four accepted the invitation, four did not respond and 2 declined the offer. At the time of the study there was a teacher strike and the researcher could only obtain access to two of the schools with a total enrolment figure of 2300 learners. Thus the sampling frame was reduced from ten

(n=5736) to two schools (n=2300) of which 1600 learners were enrolled in Grades 8-10. Due to the reduced sampling frame, the researcher then decided to invite all the grade 8 -10 learners in both schools to participate in the study (N=1600). The sampling method used was simple random sampling since everyone on that list had an equal opportunity to participate in the study. The final sample consisted of 1027 learners who presented with parental consent and learner assent on the day that the study was conducted.

#### **4.2.2 Design**

This study used a cross-sectional survey to obtain the baseline information. This approach was deemed appropriate as surveys are usually conducted to estimate the prevalence of the outcome of interest for a given population, commonly for the purposes of public health planning (Levin, 2006). Levin (2006) further explained that data can also be collected on individual characteristics, including exposure to risk factors, alongside information about the outcome. Therefore providing a 'snapshot' of the outcome and the characteristics associated with it, at a specific point in time (Polit, Beck & Hungler, 2001). The advantages of a cross-sectional survey is that it is relatively inexpensive, takes up little time to conduct; many outcomes and risk factors can be assessed; useful for public health planning, understanding disease aetiology and for the generation of hypotheses. There is no loss to follow-up. Disadvantages of a cross-sectional survey include that it is difficult, but not impossible to make causal inferences and there may be difficulty with securing adequate response rates (Deutskens, Ruyter, Wetzels, & Oosterveld, 2004). Nulty (2008) reported that a response rate between 20 – 47% can be expected with an average of 33% across the various modes of administration. Fincham (2008) reported that there are now higher expectations for survey response rates and

recommends that rates approximating 60% for most research should be the goal of researchers and cited that it is the expectation of the editorial teams for most health related journals. The present yielded a response rate of 64.20% 1027 out of 1600 that far exceeds the expected range recommended by Nulty (2008) and complies with the Fincham (2008) recommendation. The response of 60% is characterized by Babbie (2009) as a good response rate which assists in increasing the representativeness of the survey. Response rate is not the best way to judge the accuracy of survey results, but representativeness of respondents is (Steeh, Kirgis, Cannon & DeWitt, 2001; Carley-Baxter, Hill, Roe, Twiddy, Baxter & Ruppenkamp, 2009). In this instance acceptable response rates were obtained and the representativeness of the sample was increased through probability sampling.

Surveys can be administered telephonically, by mail, paper and pencil and online (Babbie, 2009; Babbie, 2001). For the purposes of the present study, the paper and pencil mode of administration was used. The advantage of this mode of administration was that the researcher would be present to clarify any questions participants might have and reduced errors resulting from respondents not understanding the instructions or experiencing difficulty with the language of the questionnaires (Babbie, 2007). It also facilitated ease of administration and was time and cost-effective since administration could take place in one sitting. An additional benefit was that the administration took place in a familiar and safe place for the learners (Babbie & Mouton, 2001; Bless, Higson-Smith, & Sithole, 2006).

#### **4.2.3 Data collection instruments**

For the purpose of this study two validated self-administered questionnaires were used for the data collection process. The two instruments were selected to meet the

objectives of this phase namely, the Youth Risk Behaviour Surveillance Survey (YRBSS) (CDC, 2002), and the Life Effectiveness Questionnaire (LEQ) (Neill, Marsh & Richards, 2003)

#### **4.2.3.1 The Youth Risk Behaviour Surveillance Survey (YRBSS)** (Appendix K)

measures the number of health risk behaviours that youth engage in and the extent thereof (Centre for Disease Control (CDC), 2002). This measure has been used with good success in South Africa in the National Youth Risk Behaviour Survey, suggesting that it is appropriate for use with this sample (Reddy et.al, 2008). The questionnaire contains 86 questions which cover areas pertaining to demographic details and health risk behaviour. The area pertaining to the health risk behaviours was divided under headings in the questionnaire with the total in brackets indicating the amount of questions covered under the respective heading. The headings were safety (4), violence-related behaviour (10), bullying (2), sad feelings and attempted suicide (5), tobacco use (11), drinking alcohol (6), dagga / marijuana use (4), other drugs (10), sexual behaviour (7), body weight (5), nutrition (7), physical activity (5) and health related: HIV/AIDS and Asthma (3).

The responses to items are based on a likert-type scale from which the participants had to choose the response that best represented them. For every health risk behaviour scores are produced that indicate first time use, life time use, use during the last 30 days, as well as engagement in health risk behaviour prevalence. The Youth Risk Behaviour Surveillance Survey reported acceptable reliability with internal consistency ranging from .61 to 1 (Brener, Kann, McManus, Kinchen,

Sundberg & Ross, 2002) indicating that the measures are reliable and appropriate for use in research (Foxcroft & Roodt, 2013).

**4.2.3.2 The Life Effectiveness Questionnaire (LEQ)** (Appendix L) measures the extent to which a person succeeds in managing his or her life using generic life skills (Neill, Marsh & Richards, 2003). Neill et al (1997) reported that the LEQ has Chronbach alpha levels ranging from .78 to .93 across the eight sub-scales and test-retest correlations ranging from .60 to .81 that represents a high internal consistency and reliability (Foxcroft & Roodt, 2013). The instrument has eight domains: Time management, Social competence, Achievement, Intellectual flexibility, Task leadership, Emotional control, Initiative, and Self-confidence. Each domain had three items that needed to be answered. Participants responded to each item by choosing which answer suits them best using an eight-point Likert scale anchored by the end points “False, not like me” (1) and “True, like me” (8). The table 4.2.4.1 below illustrates the Likert scale used. Within each individual domain a learner could score minimum of 3 to a maximum of 24. The accumulative score for the overall total 8 domains ranged from a minimum of 24 to a maximum of 192. The higher the score the more learners perceived the statements or questions raised to be more true to them or like them.

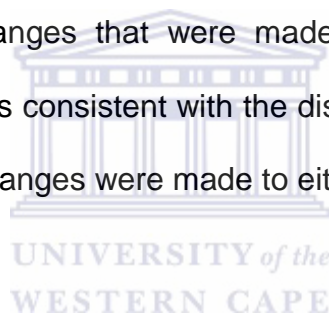
**Table 4.2.4.1 Likert scale**

False Not Like Me						True Like Me	
1	2	3	4	5	6	7	8
This statement doesn't describe me at all; it isn't like me at all		More false than true		More true than false		This statement describes me very well; it is very much like me	

#### **4.2.4 Data collection process**

##### **4.2.4.1 Piloting**

A pilot study was conducted on learners in grade 8 and 9 at a school that was not part of the study population. It was conducted in order for the researcher to ascertain whether the learners had an understanding of the questions and were able to answer the items in the questionnaires. Furthermore it also assisted the researcher to gauge the time needed for the learners to complete the questionnaires. Before administering the questionnaire the only changes that the researcher made was within the demographic section where learners were requested to indicate whether they were in grade 8, 9 or 10 and learners were requested to indicate their race. Following the pilot study changes that were made included changing the word marijuana to dagga as this was consistent with the discourse used by learners in the research setting. No further changes were made to either of the two questionnaires.



##### **4.2.4.2 Administration process**

The researcher made appointments with the school principal and the teachers of the different grade 8-10 learners and set up appropriate times for the questionnaires to be administered. Information sheets, informed consent and assent forms were given to teachers to give to learners in order to obtain parental consent and learner assent. Through the assistance of the school consent forms and information sheets were disseminated to the parents. This assisted in getting parents to feel comfortable with the knowledge that the school support the research being conducted. Parents could also contact the researcher for any clarity that needed regarding the research. The teachers who volunteered to assist in the administration of the questionnaire attended a training session with the researcher in order to become familiar with the

two questionnaires and to afford the teachers the opportunity to discuss or ask questions regarding the instruments or the procedures to be followed. Prior to administering of the questionnaires, learners had to provide informed assent. The researcher explained the study and the need for participation to the principals, teachers and learners. The questionnaires were then administered in class by either the researcher or educators who were trained in the administration of the questionnaire.

#### **4.2.5 Analysis**

Descriptive statistics, specifically frequency distributions and percentages were used to summarise demographic data, engagement in risk behaviours and life skills domains. The data from the YRBSS was subjected to cross tabulations to determine frequency distributions along levels of identified variables with gender (Goodman, 2003). Chi-square analyses were used to assess group differences based on gender. This analysis was appropriate since the survey produced frequency data (Pretorius, 2007; Kranzler, 2010).

Multiple regression analysis was used to assess whether life skills could significantly predict engagement in health risk behaviours for this sample. Regression analysis entails using the least squares principle to determine the best fitting line to a scatterplot of data so that the distance between the line and the furthest points above and below the line are minimized (Walker & Maddan, 2013). In this way, one can predict performance on one variable based on the knowledge of another (Goodwin, 2003). Multiple regression enables the researcher to test the effect of a combination of predictor variables on an outcome variable (Kranzler, 2010). The

omnibus test enables predictors to be entered simultaneously to allow them to compete with one another within the regression analyses. In this way, the shared variances can be partialled out and the unique contribution for each predictor can be determined and tested for significance (Howell, 2008). Thus multiple regression was appropriate for the analysis to determine the extent to which life skills domains can predict engagement in the most frequently engaged in HRB. For the purposes of this analysis, the eight life skills domains were identified as predictor variables including time management, social competence, achievement, intellectual flexibility, task leadership, emotional control, active initiative and self-confidence. The most frequently engaged in HRBs (alcohol drinking, smoking, drug use, sexual activity and physical inactivity) were identified as outcome variables. Thus the predictors were entered simultaneously to allow them to compete with one another within the regression analyses. Five models were tested in which alcohol drinking, smoking, drug use, sexual activity and physical inactivity as the respective dependent variables were tested as a function of time management, social competence, achievement, intellectual flexibility, task leadership, emotional control, active initiative and self-confidence. In each model Conservative estimates recommend 15 participants per predictor variable when determining whether samples are large enough to support a robust analysis (Howell, 2008). In this instance a model testing eight predictors would require a minimum sample of 120 participants. This sample had 1027 participants and therefore exceeded the minimum requirement needed for testing a model with eight predictors.



## 4.3 RESULTS

### 4.3.1 Demographic information

The mean age of the learners was 14.66 (SD=  $\pm$  1.607). The majority of the learners (64.8%) were aged between 14 (n=361, 35.2%) and 15 years (n=304, 29.6%) old.

The gender composition was reasonably even with unequal with male learners comprising 57.5% of the sample (n=591) and female learners 41.1% were female (n=425). The majority (90.6%, n=930) of the sample self-identified as 'coloured' using the racial categories from the South African population. Likewise the majority of the participants were in grade 8 (42%; n=431) were. The demographic information of the learners is listed below in Table 4.1.

**Table 4.1 Demographic information (n=1027)**

Variable	Frequencies	Percentage
<b>Gender</b>		
Male	591	57.5
Female	425	41.4
Missing	11	1.1
Total	1027	100
<b>Age</b>		
13 years	97	9.4
14 years	361	35.2
15 years	304	29.6
16 years	210	20.4
17 years	40	3.9
18 years & older	8	0.8
Missing	7	0.7
Total	1027	100.0
<b>Grade</b>		
Grade 8	431	42.0
Grade 9	352	34.3
Grade 10	238	23.2

Missing	6	0.6
Total	1027	100.0
<b>Race</b>		
Black	45	4.4
Coloured	930	90.6
Indian	8	0.8
White	13	1.3
Other	16	1.6
Missing	15	1.5
Total	1027	100.0

#### 4.3.2 Health Risk Behaviour

Health risk behaviours assessed by the questionnaire included personal safety, violence related behaviours, tobacco and drug use, alcohol use, sexual behaviour and participation in physical activity.

##### 4.3.2.1 Personal Safety

These items for this section focused on behaviours that may result in unintentional injuries, such as wearing a seatbelt. Table 4.2 summarises the questions relating to personal safety and the frequency distributions for each response option. It was found that 53% of the learners do not use a helmet when riding a bicycle. In addition, 21.7% indicated that they never wear a seat belt when driving in a car. Of the respondents, approximately 48% indicated that they had driven with someone who had been drinking in the past 30 days.

**Table 4.2: Personal Safety (n=1027)**

Questions	Choices	Frequency n (%)
When you rode a bicycle during the past 12 months, how often did you wear a helmet?	Missing did not ride a bicycle never wore a helmet rarely sometimes most of the times always	13 (1.3%) 341 (33.2%) 547 (53.2%) 32 (3.1%) 51 (5.0%) 19 (1.9%) 24 (2.3%)
How often do you wear a seat belt when riding in a car driven by someone else?	missing never rarely sometimes most of the time always	6 (0.6%) 223 (21.7%) 115 (11.2%) 451 (44.0%) 134 (13.0%) 98 (9.5%)
During the past 30 days, how many times did you ride in a car or other vehicle driven by someone who had been drinking alcohol?	missing 0 times 1 time 2 or 3 times 4 or 5 times 6 or more times	7 (0.7%) 530 (51.6%) 138 (13.4%) 133 (13.0%) 61 (5.9%) 158 (15.4%)
During the past 30 days, how many times did you ride in a car or other vehicle when you had been drinking alcohol?	missing 0 times 1 time 2 or 3 times 4 or 5 times 6 or more times	6 (0.6%) 874 (85.1%) 61 (5.9%) 45 (4.4%) 12 (1.2%) 29 (2.8%)

#### 4.3.2.2 Violence-related behaviour

Ten items assessed violence-related behaviour and school-related violent behaviours. For example, did learners carry weapons on their person during the past thirty days including whether any of the weapons was brought onto the school premises. Table 4.3 presents the findings related to the learners' self-reported behaviour in this section. The majority of learners (n=898) did not carry any weapons such as a gun, knife or club, however 121 (11.8%) of the learners did feel the need to carry a weapon thus putting them at risk as well as showing the fear of being in some sort of danger thus needing to protect themselves. Although the majority of the learners (n=980) did not feel the need to carry a gun there were 39 learners that did

feel the need to carry a gun. In addition, 59 learners carried a weapon on school property during the past 30 days.

Learners were also asked to indicate whether during the past 12 months their girlfriend or boyfriend ever hit, slapped or physically hurt them on purpose as well as whether they have ever been forced to have sexual intercourse when they did not want to. One hundred and seventy of the learners (17%) indicated that they have been hit, slapped or hurt physically on purpose whilst 119 (11.6%) learners have been physically forced to have sexual intercourse when they did not want to.

**Table 4.3: Violence-related behaviour (n=1027)**

Questions	Choices	Frequency (%)
During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club?	missing 0 days 1 day 2 or 3 days 4 or 5 days 6 or more days	8 (0.8%) 898 (87.4%) 48 (4.7%) 38 (3.7%) 12 (1.2%) 23 (2.2%)
During the past 30 days, on how many days did you carry a gun?	missing 0 days 1 day 2 or 3 days 4 or 5 days 6 or more days	8 (0.8%) 980 (95.4%) 20 (1.9%) 10 (1.0%) 5 (0.5%) 4 (0.4%)
During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club on school property?	missing 0 days 1 day 2 or 3 days 4 or 5 days 6 or more days	9 (0.9%) 959 (93.3%) 35 (3.4%) 16 (1.6%) 4 (0.4%) 4 (0.4%)
During the past 30 days, on how many days did you not go to school because you felt you would be unsafe at school or on your way to or from school?	missing 0 days 1 day 2 or 3 days 4 or 5 days 6 or more days	9 (0.9%) 749 (72.9%) 135 (13.1%) 95 (9.2%) 19 (1.9%) 20 (2.0%)
During the past 12 months, how many times has someone threatened or injured you with a weapon such as a	missing 0 times 1 time	8 (0.8%) 874 (85.1%) 96 (9.3%)

gun, knife, or club on school property?	2 or 3 times	26 (2.5%)
	4 or 5 times	10 (1.0%)
	6 or 7 times	4 (0.4%)
	8 or 9 times	2 (0.2%)
	12 or more times	7 (0.7%)
During the past 12 months, how many times were you in a physical fight?	missing	10 (1.0%)
	0 times	629 (61.2%)
	1 time	204 (19.9%)
	2 or 3 times	94 (9.1%)
	4 or 5 times	39 (3.8%)
	6 or 7 times	17 (1.7%)
	8 or 9 times	8 (0.8%)
	10 or 11	5 (0.5%)
	12 or more times	21 (2.0%)
During the past 12 months, how many times were you in a physical fight in which you were injured and had to be treated by a doctor.	missing	10 (1.0%)
	0 days	929 (90.4%)
	1 day	54 (5.3%)
	2 or 3 days	22 (2.1%)
	4 or 5 days	2 (0.2%)
	6 or more days	10 (1.0%)
During the past 12 months, how many times were you in a physical fight on school property?	missing	8 (0.8%)
	0 times	818 (79.6%)
	1 time	144 (14.0%)
	2 or 3 times	39 (3.8%)
	4 or 5 times	6 (0.6%)
	6 or 7 times	4 (0.4%)
	8 or 9 times	5 (0.5%)
	12 or more times	3 (0.3%)
During the past 12 months did your boyfriend or girlfriend ever hit, slap, or physically hurt you on purpose?	missing	6 (0.6%)
	yes	170 (16.6%)
	no	850 (82.8%)
Have you ever been physically forced to have sexual intercourse when you did not want to?	missing	6 (0.6%)
	yes	119 (11.6%)
	no	902 (87.8%)

#### 4.3.2.3 Bullying

One hundred and fifty one (14.7%) of the learners has indicated that they have been bullied at school and 184 (17.9%) learners were bullied via an electronic medium during the past 12 months. Table 4.4 summarized the findings for bullying.

**Table 4.4: Bullying (n=1027)**

Questions	Choices	Frequency (%)
During the past 12 months, have you ever been bullied on school property?	missing	10 (1.0%)
	yes	151 (14.7%)
	no	866 (84.3%)
During the past 12 months, have you ever been electronically bullied? (Include being bullied through e-mail, chat rooms, instant messaging, websites, or texting.)	missing	11 (1.1%)
	yes	184 (17.9%)
	no	832 (81.0%)

#### 4.3.2.4 Sad feelings and attempts of suicide.

Four hundred and thirty one (41.9%) of the learners expressed feelings of sadness or being hopeless almost every day for two weeks or more in a row. Data further indicates that two hundred eighty nine learners made a plan to commit suicide during the past 12 months and two hundred and ninety eight learners seriously considered attempting to commit suicide. During the past 12 months learners attempted to commit suicide as follows: 120 learners (1 time), 79 learners (2 or 3 times), 8 learners (4 or 5 times) and 16 learners (6 or 7 times). Seventy three learners indicated that their attempted suicide led to them being injured, poisoned or overdosed resulting in needing treatment from a doctor or a nurse. Table 4.5 summarises the results relating to this section.

**Table 4.5: Sad feelings and attempts of suicide (n=1027)**

Questions	Choices	Frequency (%)
During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?	Missing yes no	10 (1.0%) 431 (41.9%) 586 (57.1%)
During the past 12 months, did you make a plan about how to commit suicide?	Missing yes no	14 (1.4%) 289 (28.1%) 724 (70.5%)
During the past 12 months, did you ever seriously consider attempting suicide?	Missing yes no	19 (1.9%) 298 (29.0%) 710 (69.1%)
During the past 12 months, how many times did you actually attempt suicide?	Missing 0 times 1 time 2 or 3 times 4 or 5 times 6 or 7 times	14 (1.4%) 790 (76.9%) 120 (11.7%) 79 (7.6%) 8 (0.8%) 16 (1.6%)
If you attempted suicide during the past 12 months, did any attempt result in an injury, poisoning, or overdose that had to be treated by a doctor or nurse?	Missing I did not attempt suicide during the past 12 months. yes no	20 (2.0%) 497 (48.4%) 73 (7.1%) 437 (42.5%)

UNIVERSITY of the  
WESTERN CAPE

#### 4.3.2.5 Smoking:

From Table 4.6 it becomes evident that 660 (64.3%) learners already engaged in smoking even if it was one or two puffs only. The learners indicated at what age they smoke a whole cigarette for the first time and it was reported during the following ages: Although the majority of the learners did not smoke (50%), at least 19% started smoking at the age of 14-15 years. Three hundred and seventy two (36%) of the learners indicated that they smoked during the past 30 days prior to the survey and 91 (8.9%) of those learners reported that they smoked all 30 days. The majority of the learners who smoked reported that they smoked between 1 to 10 cigarettes on the days that they smoked with 114 smoking 1 per day, 93 smoking 2-5 cigarettes per day and 111 smoking between 6-10 cigarettes. One hundred and eighty three

learners smoked on the school property during the past 30 days ranging from 1-2 days (62 learners) to all 30 days (51 learners). One hundred and eighty two learners stated that they smoked at least one cigarette for a period 30 days continuously.

**Table 4.6: Smoking (n=1027)**

Questions	Choices	Frequency (%)
Have you ever tried cigarette smoking, even one or two puffs?	missing yes no	16 (1.6%) 660 (64.2%) 351 (34.8%)
How old were you when you smoked a whole cigarette for the first time?	Missing I have never smoked a whole cigarette 8 years old or younger 9 or 10 years old 11 or 12 years old 13 or 14 years old 15 or 16 years old 17 years old or older	22 (2.1%) 516 (50.2%) 33 (3.2%) 48 (4.7%) 124 (12.1%) 200 (19.5%) 77 (7.5%) 7 (0.7%)
During the past 30 days, on how many days did you smoke cigarettes?	Missing 0 days 1 or 2 days 3 to 5 days 6 to 9 days 10 to 19 days 20 to 29 days All 30 days	13 (1.3%) 642 (62.5%) 153 (14.9%) 50 (4.9%) 20 (1.9%) 36 (3.5%) 22 (2.1%) 91 (8.9%)
During the past 30 days, on the days you smoked, how many cigarettes did you smoke per day?	Missing I did not smoke cigarettes during the past 30 days Less than 1 cigarette per day 1 cigarette per day 2 to 5 cigarettes per day 6 to 10 cigarettes per day 11 to 20 cigarettes per day More than 20 cigarettes per day	20 (1.9%) 654 (63.7%) 114 (11.1%) 93 (9.1%) 111 (10.8%) 20 (1.9%) 5 (0.5%) 10 (1.0%)
During the past 30 days, how did you usually get your own cigarettes?	Missing I did not smoke cigarettes during the past 30 days I bought them in a store such as a convenience store, supermarket, discount store, or gas station I bought them from a vending machine I gave someone else money to buy them for me I borrowed (or bummed) them from someone else	22 (2.1%) 652 (63.5%) 144 (14.0%) 15 (1.5%) 70 (6.8%) 24 (2.3%)



	A person 18 years old or older gave them to me	11 (1.1%)
	I took them from a store or family member	22 (2.1%)
	I got them some other way	67 (6.5%)
During the past 30 days, on how many days did you smoke cigarettes on school property?	Missing	17 (1.7%)
	0 days	827 (80.4%)
	1 or 2 days	62 (6.0%)
	3 to 5 days	25 (2.4%)
	6 to 9 days	17 (1.7%)
	10 to 19 days	14 (1.4%)
	20 to 29 days	14 (1.4%)
	All 30 days	51 (5.0%)
Have you ever smoked cigarettes daily, that is, at least one cigarette every day for 30 days?	missing	25 (2.4%)
	yes	182 (17.7%)
	no	820 (79.9%)
During the past 12 months, did you ever try to quit smoking cigarettes?	Missing	18 (1.8%)
	I did not smoke during the past 12 months	575 (56.0%)
	Yes	316 (30.7%)
	No	118 (11.5%)
During the past 30 days, on how many days did you use chewing tobacco	missing	19 (1.9%)
	0 days	965 (93.9%)
	1 or 2 days	28 (2.7%)
	3 to 5 days	1 (0.1%)
	6 to 9 days	4 (0.4%)
	10 to 19 days	4 (0.4%)
	20 to 29 days	0 (0.0%)
	All 30 days	6 (0.6%)
During the past 30 days, on how many days did you use chewing on school property?	Missing	20 (1.9%)
	0 days	976 (95.1%)
	1 or 2 days	20 (1.9%)
	3 to 5 days	2 (0.2%)
	6 to 9 days	4 (0.4%)
	10 to 19 days	1 (0.1%)
	20 to 29 days	0 (0.0%)
	All 30 days	4 (.0.4%)
During the past 30 days, on how many days did you smoke cigars, cigarillos, or little cigars?	Missing	19 (1.8)
	0 days	937 (91.2%)
	1 or 2 days	52 (5.1%)
	3 to 5 days	6 (0.6%)
	6 to 9 days	5 (0.5%)
	10 to 19 days	2 (0.2%)
	20 to 29 days	1 (0.1%)
	All 30 days	5 (0.5%)

#### 4.3.2.6 Alcohol

Table 4.7 pertains to the engagement of learners with alcohol drinking. Seven hundred and thirty eight (71.9%) learners reported that during their life they had at least one drink of alcohol for a period 1-2 two to 100 or more days. Five hundred and six (49%) of the learners engaged in alcohol drinking the 30 days prior to the survey. Three hundred and sixty six (66%) of these learners reported that it included having 5 or more drinks in a row within a couple of hours. Sixty five learners had a drink on school property during the past 30 days.

**Table 4.7: Alcohol (n=1027)**

Questions	Choices	Frequency (%)
During your life, on how many days have you had at least one drink of Alcohol?	Missing 0 days 1 or 2 days 3 to 9 days 10 to 19 days 20 to 39 days 40 to 99 days 100 or more days	16 (1.6%) 273 (26.5%) 352 (34.3%) 139 (13.5%) 76 (7.4%) 73 (7.1%) 48 (4.7%) 50 (4.9%)
How old were you when you had your first drink of alcohol other than a few sips?	Missing I have never had a drink of alcohol other than a few sips 8 years old or younger 9 or 10 years old 11 or 12 years old 13 or 14 years old 15 or 16 years old 17 years old or older	17 (1.7%) 251 (24.3%) 67 (6.5%) 81 (7.9%) 168 (16.4%) 305 (29.7%) 124 (12.1%) 14 (1.4%)
During the past 30 days, on how many days did you have at least one drink of alcohol?	Missing 0 days 1 or 2 days 3 to 5 days 6 to 9 days 10 to 19 days 20 to 29 days All 30 days	16 (1.6%) 505 (49.1%) 276 (26.7%) 91 (8.9%) 55 (5.4%) 52 (5.1%) 19 (1.9%) 13 (1.3%)
During the past 30 days,	Missing 0 days	20 (2.0%) 641 (62.4%)

on how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours?	1 day 2 days 3 to 5 days 6 to 9 days 10 to 19 days 20 or more days	154 (15.0%) 75 (7.3%) 71 (6.9%) 35 (3.3%) 11 (1.1%) 20 (2.0%)
During the past 30 days, how did you usually get the alcohol you drank?	Missing I did not drink alcohol during the past 30 days I bought it in a store such as a liquor store, convenience store, supermarket, discount store, or gas station I bought it at a restaurant, bar, or club I bought it at a public event such as a concert or sporting event I gave someone else money to buy it for me Someone gave it to me I took it from a store or family member I got it some other way	23 (2.2%) 512 (49.9%) 119 (11.6%)  35 (3.4%) 18 (1.8%) 97 (9.4%) 130 (12.7%) 29 (2.8%) 64 (6.2%)
45. During the past 30 days, on how many days did you have at least one drink of alcohol on school property?	Missing 0 days 1 or 2 days 3 to 5 days 6 to 9 days 10 to 19 days 20 to 29 days All 30 days	22 (2.1%) 940 (91.5%) 45 (4.4%) 11 (1.1%) 2 (0.2%) 1 (0.1%) 2 (0.2%) 4 (0.4%)

#### 4.3.2.7 Dagga / Hashish use

Two hundred and fifty learners have already engaged in the use of dagga. The majority of learners (n=215) were exposed to dagga use between the ages of 13-16 years however 8 learners indicated being aged 8 or younger and 41 being between the age of 9-12 years old. One hundred and one learners used dagga between 1-5 days during the past 30 days, 30 between 6-9 days, 13 between 10-19 days and 8 between 20-30 days. Seventy one learners used dagga on school property. Table 4.8 reports on the exposure of learners concerned with dagga/ hashish use.

**Table 4.8 Dagga (n=1027)**

Questions	Choices	Frequency (%)
During your life, how many times have you used dagga / Hashish (marijuana)?	Missing Never ( 0 times) Rarely ( 1-2 times) Sometimes ( 3-9 times) Often ( 10-19 times) Very Often ( 20 or more times)	35 (3.4%) 740 (72.0%) 160 (15.5%) 55 (5.4%) 18 (1.8%) 19 (1.9%)
How old were you when you tried dagga / hashish (marijuana) for the first time?	Missing I have never tried dagga / hashish (marijuana) 8 years old or younger 9 or 10 years old 11 or 12 years old 13 or 14 years old 15 or 16 years old 17 years old or older	28 (2.7%) 736 (71.6%) 8 (0.8%) 14 (1.4%) 27 (2.6%) 115 (11.2%) 90 (8.8%) 9 (0.9%)
During the past month (30 days), how often did you use dagga / Hashish (marijuana)	Missing Never ( 0 days) Rarely ( 1-5 days) Sometimes ( 6-9 days) Often ( 10-19 days) Very Often ( 20-30 days)	29 (2.8%) 846 (82.4%) 101 (9.8%) 30 (2.9%) 13 (1.3%) 8 (0.8%)
During the past 30 days, how many times did you use dagga / Hashish (marijuana on school property?	Missing Never ( 0 days) Rarely ( 1-5 days) Sometimes ( 6-9 days) Often ( 10-19 days) Very Often ( 20-30 days)	29 (2.8%) 927 (90.3%) 44 (4.3%) 21 (2.0%) 3 (0.3%) 3 (0.3%)

#### 4.3.2.8 Drug use (Cocaine):

Table 4.9 shows the engagement or exposure of learners regarding any form of cocaine, including powder, crack, or freebase. Twenty six learners have been exposed during their life with 1 learner having used it for 40 times or more and 18 for 1-2 times. Nineteen learners have been exposed to ecstasy, 74 learners have taken steroid pills or injections without a prescription from a doctor, 48 learners have taken prescription drugs such as Oxytocin, Percocet, Vicoden, Adderall or Ritalin.

**Table 4.9 Drug use (n=1027)**

<b>Questions</b>	<b>Choices</b>	<b>Frequency (%)</b>
During your life, how many times have you used any form of cocaine, including powder, crack, or freebase?	Missing 0 times 1 or 2 times 3 to 9 times 10 to 19 times 20 to 39 times 40 or more times	31 (3.0%) 970 (94.4%) 18 (1.8%) 5 (0.5%) 1 (0.1%) 1 (0.1%) 1 (0.1%)
During the past 30 days, how many times did you use any form of cocaine, including powder, crack, or freebase?	Missing 0 times 1 or 2 times 3 to 9 times 10 to 19 times 20 to 39 times 40 or more times	29 (2.8%) 978 (95.2%) 11 (1.1%) 2 (0.2%) 2 (0.2%) 3 (0.3%) 2 (0.2%)
During your life, how many times have you sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high?	Missing 0 times 1 or 2 times 3 to 9 times 10 to 19 times 20 to 39 times 40 or more times	28 (2.7%) 968 (94.2%) 19 (1.9%) 3 (0.3%) 6 (0.6%) 0 (0.0%) 3 (0.3%)
During your life, how many times have you used heroin (also called smack, junk, or China White)?	Missing 0 times 1 or 2 times 3 to 9 times 10 to 19 times 20 to 39 times 40 or more times	28 (2.7%) 977 (95.1%) 13 (1.3%) 3 (0.3%) 2 (0.2%) 0 (0.0%) 4 (0.4%)
During your life, how many times have you used methamphetamines (also called speed, crystal, crank, or ice)?	Missing 0 times 1 or 2 times 3 to 9 times 10 to 19 times 20 to 39 times 40 or more times	28 (2.7%) 971 (94.5%) 15 (1.5%) 5 (0.5%) 3 (0.3%) 1 (0.1%) 4 (0.4%)
During your life, how many times have you used ecstasy (also called MDMA)?	Missing 0 times 1 or 2 times 3 to 9 times 10 to 19 times 20 to 39 times 40 or more times	29 (2.8%) 979 (95.3%) 9 (0.9%) 6 (0.6%) 1 (0.1%) 1 (0.1%) 2 (0.2%)
During your life, how many times have you taken steroid pills or shots without a doctor's prescription?	Missing 0 times 1 or 2 times 3 to 9 times 10 to 19 times	34 (3.3%) 919 (89.5%) 51 (4.9%) 16 (1.6%) 2 (0.2%)

	20 to 39 times	3 (0.3%)
	40 or more times	2 (0.2%)
During your life, how many times have you taken a prescription drug (such as OxyContin, Percocet, Vicodin, Adderall, Ritalin, or Xanax) without a doctor's prescription?	Missing	35 (3.4%)
	0 times	944 (91.9%)
	1 or 2 times	29 (2.8%)
	3 to 9 times	10 (1.0%)
	10 to 19 times	4 (0.4%)
	20 to 39 times	2 (0.2%)
	40 or more times	3 (0.3%)
During your life, how many times have you used a needle to inject any illegal drug into your body?	Missing	35 (3.4%)
	0 times	963 (93.8%)
	1 time	21 (2.0%)
	2 or more times	8 (0.8%)
During the past 12 months, has anyone offered, sold, or given you an illegal drug on school property?	Missing	47 (4.6%)
	Yes	155 (15.1%)
	No	825 (80.3%)

#### 4.3.2.9 Sexual Behaviour

In Table 4.10 it is shown that 257 learners have had sexual intercourse. The first age of sexual intercourse has been reported by the learners as follows: 30 learners reported being 11 years or younger; 20 learners 12 years old; 47 learners 13 years old; 64 learners 14 years old; 73 learners 15 years old; 32 learners 16 years old and 10 learners aged 17 years or older. One hundred and twenty seven learners reported that they did not use a condom during their last sexual encounter. Fifty learners further indicated that they used alcohol or drugs before they had their sexual encounter the last time.

**Table 4.10 Sexual Behaviour (n=1027)**

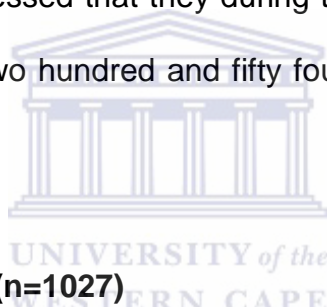
Questions	Choices	Frequency (%)
Have you ever had sexual intercourse?	Missing	39 (3.8%)
	Yes	257 (25.0%)
	No	731 (71.2%)
How old were you when you had sexual intercourse for the first time?	Missing	38 (3.7%)
	I have never had sexual intercourse	713 (69.5%)
	11 years old or younger	30 (2.9%)
	12 years old	20 (1.9%)



	13 years old 14 years old 15 years old 16 years old 17 years old or older	47 (4.6%) 64 (6.2%) 73 (7.1%) 32 (3.1%) 10 (1.0%)
During your life, with how many people have you had sexual intercourse?	Missing I have never had sexual intercourse 1 person 2 people 3 people 4 people 5 people 6 or more people	35 (3.4%) 711 (69.2%) 127 (12.4%) 60 (5.8%) 35 (3.4%) 13 (1.3%) 8 (0.8%) 38 (3.7%)
During the past 3 months, with how many people did you have sexual intercourse?	Missing I have never had sexual intercourse I have had sexual intercourse, but not during the past 3 months 1 person 2 people 3 people 4 people 5 people 6 or more people	34 (3.3%) 711 (69.2%) 83 (8.1%) 132 (12.8%) 28 (2.7%) 19 (1.9%) 2 (0.2%) 5 (0.5%) 13 (1.3%)
Did you drink alcohol or use drugs before you had sexual intercourse the last time?	Missing A. I have never had sexual intercourse B. Yes C. No	32 (3.1%) 664 (64.6%) 50 (4.9%) 281 (27.4%)
The last time you had sexual intercourse, did you or your partner use a condom?	Missing A. I have never had sexual intercourse B. Yes C. No	37 (3.6%) 680 (66.2%) 183 (17.8%) 127 (12.4%)
The last time you had sexual intercourse, what one method did you or your partner use to prevent pregnancy? (Select only one response.)	Missing I have never had sexual intercourse No method was used to prevent pregnancy Birth control pills Condoms Depo Provera (injectable birth control) Withdrawal Some other method Not sure	36 (3.5%) 726 (70.7%) 72 (7.0%) 14 (1.4%) 135 (13.1%) 9 (0.9%) 6 (0.6%) 3 (0.3%) 26 (2.5%)

#### 4.3.2.10 Physical Activity

Table 4.11 depicts the learner's engagement in physical activity. Five hundred and sixty six learners were physically active for sixty minutes during the past 7 days ranging from 166 learners for 1 day of the 7 days to 62 being active for all 7 days. The vast majority of the learners (962) spent their time watching television ranging from 157 learners for less than an hour to 226 learners for 5 or more hours per day. Only 434 learners indicated that they attend Physical Education Classes during certain days of the school week. The number of days in which they attend physical education ranged from 1 day (250 learners) to 5 days (41 learners). Five hundred and twenty four learners expressed that they during the past 12 months played in 1 to 3 or more sports teams. Two hundred and fifty four in 1 team, 142 in two teams and 128 in 3 or more teams.



**Table 4.11 Physical Activity (n=1027)**

Questions	Choices	Frequency (%)
During the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day? (Add up all the time you spent in any kind of physical activity that increased your heart rate and made you breathe hard some of the time.)	Missing	65 (6.3%)
	0 days	396 (38.6%)
	1 day	176 (17.1%)
	2 days	119 (11.6%)
	3 days	88 (8.6%)
	4 days	58 (5.6%)
	5 days	51 (5.0%)
	6 days	12 (1.2%)
	7 days	62 (6.0%)
On an average school day, how many hours do you watch TV?	Missing	65 (6.3%)
	I do not watch TV on an average school day	73 (7.1%)
	Less than 1 hour per day	157 (15.3%)
	1 hour per day	106 (10.3%)
	2 hours per day	143 (14.0%)
	3 hours per day	160 (15.6%)
	4 hours per day	97 (9.4%)
	5 or more hours per day	226 (22.0%)
On an average school day, how many hours do you	Missing	64 (6.2%)
	I do not play video or computer	297 (28.9%)



play video or Computer games or use a computer for something that is not school work? (Include activities such as Nintendo, Game Boy, PlayStation, Xbox, computer games, and the Internet.)	games or use a computer for something that is not school work Less than 1 hour per day 1 hour per day 2 hours per day 3 hours per day 4 hours per day 5 or more hours per day	204 (19.9%) 112 (10.9%) 118 (11.5%) 66 (6.4%) 47 (4.6%) 119 (11.6%)
In an average week when you are in school, on how many days do you go to physical education (PE) classes?	Missing 0 days 1 day 2 days 3 days 4 days 5 days	70 (6.8%) 523 (50.9%) 250 (24.3%) 88 (8.6%) 43 (4.2%) 12 (1.2%) 41 (4.0%)
During the past 12 months, on how many sports teams did you play? (Include any teams run by your school or community groups.)	Missing 0 teams 1 team 2 teams 3 or more teams	103 (10.0%) 400 (39.0%) 254 (24.7%) 142 (13.8%) 128 (12.5%)

### In Summary:

The majority of the learners that participated in the study were in grade 8. Males were the majority gender. Health risk behaviour engagement amongst the participants showed that 64.3% smoked, 49.6% drank alcohol, 22.4% have used dagga, 2.5% have used cocaine, 25.1% were sexually active and 38.8% were physically inactive. In addition, 54% reported having had multiple sexual partners and 19.4% were sexually active in the last three months. Although only 311 of the participants responded to the question of condom use during their last sexual encounter, 41% reported that they did not use a condom. Furthermore, 21.6% of the learners consumed alcohol and/ or drugs before their last sexual encounter. Table 4.12 summarizes information about the engagement of the participants in smoking, drinking, drug use, sexual activity and physical activity.

**Table 4.12: Frequency distribution for engagement in Health Risk Behaviour (n=1027)**

Health Risk Behaviour	Responses	Frequency	%	Cum
Smoking	Yes	660	64.3	64.3
	No	353	34.4	96.7
	Undecided	14	1.3	100.0
Drinking	Yes	501	48.8	48.8
	No	510	49.65	98.45
	Undecided	16	1.55	100
Drug use: Dagga	Yes	251	24.4	24.4
	No	741	72.2	96.6
	Undecided	35	3.4	100.0
Cocaine	Yes	26	2.5	2.5
	No	971	94.5	97.0
	Undecided	30	3.0	3.0
Sexual Activity	Yes	258	25.1	25.1
	No	730	71.1	96.2
	Undecided	39	3.8	100.0
Physical Activity	Yes	565	55.0	55.0
	No	398	38.8	93.8
	Undecided	64	6.2	6.2

%= Percentage; Cum % = Cumulative percentage

#### 4.4 Cross-tabulations between health risk behaviour and identified demographic variables

Cross tabulations were done with regards to the health risk behaviours depicted in Table 4.12. The cross tabulation looked at the distributions across the intersection of age and gender per health risk behaviours. The results have been tabularized and are presented per HRB.

##### 4.4.1 Smoking and Age

From Table 4.13 Smoking prevalence associated with age illustrates that at least 60% of learners reported smoking across all age groups. The prevalence of smoking amongst 13, 14 and 15 year olds was 60.4%, 60.3% and 49.6% respectively. The

prevalence of smoking amongst 17 and 18 year olds who were still in grades 8-10, was 62.5% and 75% respectively. The prevalence for this group must be interpreted with caution since it represent a smaller group that has aged out for their grade and often present with a range of other challenges. Table 4.14 captures the distributions for smoking relative to age (n=1020).

**Table 4.13 Cross-tabulation: Age x Smoking (n=1020)**

Variable		Age					
		13	14	15	16	17	18
Smoking	Yes	52	218	201	151	30	5
	No	42	140	96	58	10	3
Missing		3	3	7	1	0	0
N		97	361	304	210	40	8



#### 4.4.2 Smoking and Gender

From Table 4.14 below the prevalence of smoking was 64.3%. The gender distributions for smoking reveals that more male learners reportedly smoke (n = 412) in comparison to female learners (n=243). Of the smoking subgroup, 62.4% were male. The gendered pattern that is suggested by the cross tabulation was tested empirically through a Chi Square test to determine if there are significant differences in the frequency of smoking between male and female learners. The results are reported later in this chapter.

**Table 4.14 Cross-tabulation: Gender x Smoking (n=1027)**

Variable		Gender		
		Male	Female	Missing
Smoking	Yes	412	243	5
	No	174	173	4
Missing		5	9	2
N		591	425	11

#### 4.4.3 Drinking and Age

Table 4.15 captures the frequency distribution of the learners' drinking during the last 30 days across age groups. Drinking prevalence associated with age illustrates that the 13-16 years age groups presents with higher engagement. The 13 year old age groups with the highest engagement illustrates that 62 of a total 97 learners engaged in drinking the last 30 days. This was followed by the 14 year old age group at 210 out of 391.

**Table 4.15 Cross-tabulation: Age x Drinking (n=1020)**

Variable		Age					
		13	14	15	16	17	18
Drinking	Yes	62	210	135	80	13	1
	No	35	146	161	129	27	7
Missing		0	5	8	1	0	0
N		97	361	304	210	40	8

UNIVERSITY of the  
WESTERN CAPE

#### 4.4.4 Drinking and Gender

Table 4.16 below clearly depicts a gendered pattern in alcohol consumption. Two hundred and ninety one (291) of the 591 (28.3%) male learners, engaged in drinking the last 30 days in comparison to the 210 female learners (20.4%) who reportedly drank. Thus males are reportedly engaged in drinking more than girls. Of the drinking subgroup, 57.6% was male.

**Table 4.16 Cross-tabulation: Gender x Drinking (n=1027)**

Variable		Gender		
		Male	Female	Missing
Drinking	Yes	291	210	4
	No	295	206	5
Missing		5	9	2
N		591	425	11

#### 4.4.5 Sexual Behaviour and Gender

From Table 4.17 below it becomes evident that more female learners (143/405) were reportedly sexually active than male learners (114/585). Female learners constituted 55.6% of the sexually active group in comparison to males who comprised 44.4%. A third (33.6%) of female learners reported that they were sexually active in the last 30 days in comparison to less than one fifth (19.3%) of male learners. What is interesting to note is that 36 learners, 20 females and 16 males, did not respond to the question of being sexually active. The gendered pattern that emerges here was tested empirically for significant differences in sexual activity between gender groups and the results are reported later in the chapter with all Chi-square results.

**Table 4.17 Cross-tabulation: Gender x Sexual Behaviour (n=1027)**

Variable		Gender		
		Male	Female	Missing
Sexual Behaviour	Yes	114	143	0
	No	461	262	8
Missing		16	20	3
N		591	425	11

#### 4.4.6 Sexual Behaviour and Age

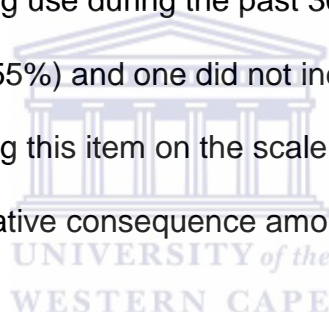
Table 4.18 captures the frequency distribution of the learners' sexual behaviour by age group. From the table it becomes evident that 12.4% of 13 year olds; 16.1% of 14 year olds; 25% of 15 year olds; 40% of 16 year olds; 50% of 17 year olds; and 75% of 18 year olds were sexually active. Within the sexually active group, 15 and 16 year olds were most active constituting 29.6% and 32.7% of the sexually active group respectively.

**Table 4.18 Cross-tabulation: Age x Sexual Behaviour (n=1027)**

Variable		Age					
		13	14	15	16	17	18
<b>Sexually active</b>	<b>Yes</b>	12	58	76	84	20	6
	<b>No</b>	82	296	206	124	18	2
<b>Missing</b>		3	7	22	2	2	0
<b>N</b>		97	361	304	210	40	8

#### 4.4.7 Drugs use (Cocaine and Dagga) and Gender

Table 4.19 below illustrates the frequency of drug use (cocaine) over the last 30 days across the gender of learners. Only twenty learners out of the sample of 1025 (2%) reportedly engaged in drug use during the past 30 days of who eight (8) were male (40%), 11 were female (55%) and one did not indicate gender (5%). Twenty-six (26) learners omitted answering this item on the scale which could be related to embarrassment or fear of negative consequence amongst other reasons.

**Table 4.19 Cross-tabulation: Gender x Drug use (n=1027)**

Variable		Gender		
		Male	Female	Missing
<b>Drug use</b>	<b>Yes</b>	8	11	1
	<b>No</b>	568	403	7
<b>Missing</b>		15	11	3
<b>N</b>		591	425	11

On differentiation between dagga and other drugs, the reporting changed dramatically as illustrated in Table 4.20 below that reflects the frequency distribution for Dagga use across genders.

**Table 4.20 Cross-tabulation: Gender x Dagga use (n=1027)**

Variable		Gender		
		Male	Female	Missing
Drug use	Yes	74	76	2
	No	503	336	7
Missing		14	13	2
N		591	425	11

The number of learners who reported using Dagga in the last month increased to 14.8% (n=152) from the 2% (n=20) who reported using drugs including Dagga. Female learners constituted 51% (n=79) of the subgroup that acknowledged using Dagga in the last month in comparison to males who comprised 48% (n=74). Of the males who acknowledged using Dagga, 8.8% (n=52) reportedly used on less than five days in the last month; 2.5% (n=15) reportedly used dagga on six (6) to nine (9) days of the last month whereas only 0.7% (n=4) and 0.5% (n=3) reportedly used dagga on between 10-19 and 20-30 days respectively. Of the females who acknowledged using Dagga, 11.3% (n=48) reportedly used on less than five days in the last month; 3.3% (n=14) reportedly used dagga on six (6) to nine (9) days of the last month whereas only 2.1% (n=9) and 1.2% (n=5) reportedly used dagga on between 10-19 and 20-30 days respectively. The slight larger percentage use of Dagga reported by females was tested empirically to determine if there was a significant difference in dagga use based on gender. The results are reported later in the chapter.

#### **4.4.8 Drug use (Cocaine and Dagga) and Age**

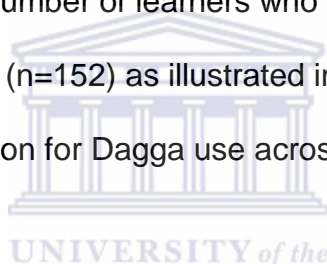
Table 4.21 below shows the frequency of drug use (dagga) across the age groups of learners in the sample. As mentioned before only 2% (n=20) of the sample

acknowledged using drugs including Dagga in the past 30 days. From Table 4.21 it becomes evident that the highest frequency of dagga use was indicated in the 14 and 16 year old age groups.

**Table 4.21 Cross-tabulation: Age x Drug use (n=1027)**

Variable		Age					
		13	14	15	16	17	18
Drug use	Yes	3	7	2	7	1	0
	No	94	347	284	202	39	8
Missing		0	7	18	1	0	0
N		97	361	304	210	40	8

On further differentiation, the number of learners who reported using Dagga in the last month increased to 14.8% (n=152) as illustrated in Table 4.21, Table 4.22 reflects the frequency distribution for Dagga use across age groups.



**Table 4.22 Cross-tabulation: Age x Dagga use (n=1025)**

Variable		Age					
		13	14	15	16	17	18
Age	Yes	10	34	46	47	10	4
	No	86	320	240	162	30	4
Missing		1	7	18	1	0	0
N		97	361	304	210	40	8

From the table it becomes evident that 10.3% of 13 year olds; 9.4% of 14 year olds; 15.1% of 15 year olds; 22.4% of 16 year olds; 25% of 17 year olds; and 50% of 18 year olds reportedly smoked Dagga in the last month. Within the group that reportedly smoked Dagga, 15 and 16 year olds were most active constituting 30% and 30.3% of the group respectively. The most commonly reported frequency of smoking Dagga was between one and five times per week, followed by six to 9 times per week.



#### 4.4.9 Physical activity and Gender

From Table 4.23 it becomes evident that the majority of learners (55.2%, n= 566) were not physically active during the seven days preceding the administration of the survey on the association of physical activity amongst learners, with age and gender. Within the gender groupings, 62.6% of male learners and 33.6% of female learners were reportedly physically active during the week preceding the survey. Male and female learners constituted 43.3% and 31.3% of the physically active sample respectively.

**Table 4.23 Cross-tabulation: Gender x Physical Activity (n=1027)**

Variable		Gender		
		Male	Female	Missing
Physical Activity	Yes	256	133	7
	No	307	258	1
Missing		28	34	3
N		591	425	11

#### 4.4.10 Physical activity and Age

Table 4.24 reports on the frequency distribution of physical activity across the age groups. From the table it becomes evident that 47.4% of 13 year olds; 42.7% of 14 year olds; 39.8% of 15 year olds; 25.7% of 16 year olds; 40% of 17 year olds; and 37.5% of 18 year olds reportedly engaged in physical activity in the week prior to the survey. Within the physically active group 14 and 15 year olds were most active constituting 38.9% and 30.6% of the group respectively.

**Table 4.24 Cross-tabulation: Age x Physical activity (n=1020)**

Variable		Age					
		13	14	15	16	17	18
Physical activity	Yes	46	154	121	54	16	3
	No	49	190	151	148	22	4
Missing		2	17	32	8	2	1
N		97	361	304	210	40	8

#### 4.5 PEARSON'S CHI-SQUARE ANALYSIS

Chi Square tests were computed for gender and selected Health Risk Behaviours. Significant differences were found between male and female participants on the extent to which they engage in drinking alcohol ( $X= 22.8$ ,  $p < .01$ ). The results suggest that male learners reportedly drank significantly more than female learners. In other words subgroups based on gender did not come from the same population in relation to drinking.

Significant differences were found in the usage of drugs (Cocaine and Dagga) between the genders ( $p<.01$ ). 72.7% of males reported using drugs in comparison to 27.3% of female learners. Thus male learners reportedly use drugs significantly more than female learners. Thus the male and female subsets in the sample were representative of different populations. Null findings were reported for differences between male and female learners in terms of smoking dagga ( $p > .05$ ). In this instance the male and female subsets came from the same population.

Significant differences were reported between the genders in terms of engagement in risky sexual activity ( $X= 51.18$ ,  $p < .001$ ). A significantly larger percentage of female learners (55.6%) were engaging in risky sexual activity in comparison with

44.4% of male learners. Thus male and female learners who were engaging in risky sexual behaviour came from different populations.

In short, gendered patterns in engagement with drinking, drug use and risky sexual behaviour was empirically supported by the results of Chi square tests. Male learners tended to significantly drink and use drugs more than female learners whilst female learners engaged in risky sexual behaviour significantly more than male learners. The gendered pattern of engagement was not supported for the specific use of Dagga.

#### 4.6 LIFE EFFECTIVENESS QUESTIONNAIRE (LEQ)

LEQ scores for each domain could range from a minimum of three points to a maximum of 24 points. Mean scores obtained on the LEQ, as a measure of perceived competence in eight life skills domains, provided the following picture of the sample in the study presented in Table 4.25 below. The highest mean scores were obtained on perceived self-confidence (Mean = 20.24; SD=  $\pm 4.2$ ) and achievement motivation (Mean = 19.43  $\pm 4.5$ ). The lowest mean scores were obtained on time management (Mean = 15.55  $\pm 4.2$ ) and emotional control (Mean = 15.59  $\pm 5.02$ ). The remaining domains centred around 16 scaled points.

**Table 4.25 Individual Domain Scores**

Domain	Mean Score	SD
Time Management	15.55	$\pm 4.2$
Social-Competence	16.03	$\pm 4.4$
Achievement Motivation	19.43	$\pm 4.5$
Intellectual Flexibility	16.66	$\pm 4.5$
Task Leadership	16.57	$\pm 4.5$

Emotional Control	15.59	± 5.02
Active Initiative	17.49	± 4.9
Self-Confidence	20.24	± 4.2

#### 4.6.1 Regression analyses<sup>1</sup>:

The five models testing the impact of life skills on engagement in smoking, drinking, drug use, sexual activity and physical activity respectively were all found to be significant ( $p = .000$ ). The respective contribution of each model is reflected in Table 4.26

**Table 4.26 Error variance explained in regression models**

Model	Variables	R	R <sup>2</sup>
1	Smoking	0.12	0.35
2	Drinking	0.11	0.34
3	Drug use	0.31	0.56
4	Sexual activity	0.14	0.38
5	Physical activity	0.02	0.04

\*\*  $p < 0.001$

**4.6.1.1 Model 1- Smoking:** Model 1 accounted for 35% of the variance in smoking as a function of the identified predictors. Emotional control ( $p = .000$ ), Time management ( $p = .000$ ), Social competence ( $p = .037$ ), and Initiative ( $p = .043$ ) were significant predictors of smoking controlling for intellectual flexibility, task leadership, achievement and self-confidence. Emotional control: For every one unit increase in emotional control, there was a corresponding change in smoking habit ( $b = 0.141$ ). A positive beta value found indicated that increases in emotional control scores

<sup>1</sup> This portion of the study has been published and the citation is as follows: Pharoah, H., Frantz, J. & Smith, M.R. (2011). Life Skills as predictors of engagement in health risk behaviours: A survey of secondary school learners. *African Journal of Physical, Health Education, Recreation and Dance*, June 2011(Supplement).

correspond to increases in the smoking score. As smoking habit was coded with higher values and lower values indicating non-smoking, the positive signage on the beta actually reflects an inverse relationship rather than a positive relationship. That is, learners who had low emotional control were significantly more likely to smoke when the other life skills were controlled.

Time management: For every one unit increase in time management there was a corresponding change in smoking ( $b = .121$ ). The signage on the beta is positive indicating that increases in time management scores corresponds to an increase in the smoking score. Similarly, increased time management skills significantly predicted non-smoking while controlling for the other seven life skills domains.

Social Competence: For every one unit increase in social competence, there was a corresponding change in smoking ( $b = -0.097$ ). The negative beta value indicates an inverse relationship between social competence and smoking. That is, increased social competence significantly predicts abstinence from smoking whereas decreased social competence significantly predicts smoking, when controlling for the other seven life skills domains that were held constant. The degree of personal confidence and self-perceived ability in social interactions a learner possesses significantly predicts the likelihood that the learner will engage in smoking.

Active Initiative: For every increase in initiative, there was a corresponding change in smoking ( $b = -0.089$ ). The negative beta value indicates an inverse relationship between Active initiative and smoking. That is, increased initiative significantly predicts non-smoking, controlling for the other seven life skills domains.

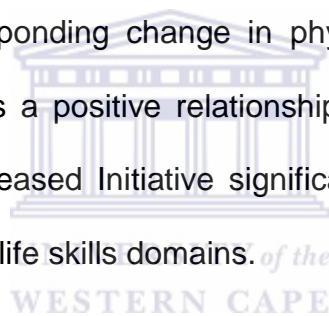
**4.6.1.2 Model 2 - Drinking:** Model 2 accounted for 34% of the variance of drinking. Achievement ( $p = .046$ ) and Emotional control ( $p = .000$ ) were significant predictors of Drinking controlling for the remaining life skill domains. For every one unit increase in Achievement, there was a corresponding change in drinking ( $b = -0.102$ ). The negative beta value indicates an inverse relationship between achievement and drinking. Increased Achievement significantly predicts abstinence from drinking, controlling for the remaining life skills domains. Emotional Control: For every one unit increase in emotional control, there was a corresponding change in drinking ( $b = -0.136$ ). The negative beta coefficient indicates an inverse relationship between Emotional control and drinking. Therefore increased emotional control significantly predicts abstinence from drinking controlling for the remaining life skills domains.

**4.6.1.3 Model 3 – Drug Use:** Model 3 accounted for 56% of the variance in drug use. Time Management was a significant predictor of Drug use ( $p = .004$ ) controlling for the remaining life skill domains. For every increase in Time management there was a corresponding change in Drug use ( $b = .121$ ). The signage on the beta is positive indicating that an increase in time management score corresponds to a concomitant increase in the learners' drug use score. Higher values on Drug use indicate use and lower values indicate abstinence. Thus, the positive signage on the beta reflects an inverse relationship. That is, an increased time management skill significantly predicts non-drug use, controlling for the remaining life skills domains.

**4.6.1.4 Model 4 - Sexual activity:** Model 4 accounted for 38% of the variance in sexual activity. Time management was a significant predictor of sexual activity ( $p = .023$ ), controlling for the remaining life skills domains. For every increase in time management there was a corresponding change in sexual activity ( $b = .098$ ). The

signage on the beta is positive indicating that increases in time management scores correspond to increases in the sexual activity score. Sexual activity was coded as a categorical variable with the higher value indicating sexual activity and the lower value abstinence. Thus, the positive signage on the beta coefficient actually reflects an inverse relationship. Increased time management skills significantly predict abstinence from sex, controlling for the remaining life skills domains.

**4.6.1.5 Model 5 – Physical activity:** Model 5 accounted for 4% of the variance in physical activity. Active initiative was a significant predictor for physical activity ( $p=.000$ ) controlling for the other life skills in the model. For every increase in active initiative, there was a corresponding change in physical activity ( $b= 0.166$ ). The signage on the beta indicates a positive relationship between active initiative and physical activity. That is, increased Initiative significantly predicts physical activity, controlling for the other seven life skills domains.

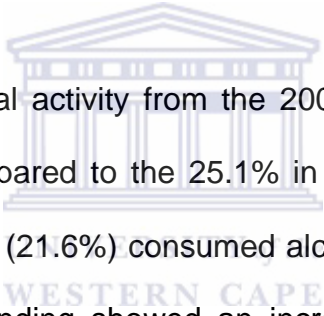


## **4.7 DISCUSSION**

This phase of the study was designed to conduct a survey among grade 8-10 learners to establishing a baseline of their engagement in health risk behaviours as estimated or measured by the Youth Risk Surveillance Survey (CDC, 2002). The relationship between life skills, as measured by the Life Effectiveness Questionnaire (Neill, Marsh & Richards, 1997), and engagement in the most prevalent health risk behaviours, as emerged from the survey data for this sample was also examined.

The learners reported engagement in health risk behaviours that included the use of tobacco, alcohol and other substances, unprotected sexual activity, poor dietary

habits, physical inactivity, and other behaviours that contribute to unintentional injuries and violence. The results showed that learners were actively smoking (64.3%) and drinking (49.65%). A quarter of this sample used dagga (24.4%). The results pertaining to current use or engagement (last 30 days) showed that learners were actively smoking (36.2%), drinking (49.7%), and using “dagga” (14.8%). These findings show alarming increases compared to results from the 2008 South African Youth Risk Behaviour Survey (Reddy et.al 2010) among learners which indicated that 21% actively smoked and 10% used “dagga”. Trends in alcohol use were similar despite efforts being made to educate the population on the prevention of health risk behaviours and the harmful effects of continued alcohol use.



A decrease of 12.9% in sexual activity from the 2008 results was reported where 38% was sexually active compared to the 25.1% in the current study. The results also indicated that 50 learners (21.6%) consumed alcohol and/ or drugs before their last sexual encounter. This finding showed an increase compared to the results reported by Reddy et.al (2010) where 14% of their participants consumed alcohol or drugs before sexual intercourse. Though this finding does not imply a causal relationship between substance use and sexual activity it is worrying that substance use is occurring prior to sex given that drug or alcohol use impairs decision-making. This raises concerns about the learners` decisions to consent to sex, engagement in safe sex practices e.g. condom use, and risk reduction. It also resonates with the finding that engagement in risky sexual behaviour after consumption of alcohol, especially amongst females was on the increase.



More and more evidence shows that several of these risk behaviours tend to co-occur (Wiefferink et.al, 2006; Driskell, Dymont, Mauriello, Castle & Sherman, 2008) and have similar determinants (Wiefferink et.al, 2006). The implication for intervention is that integrative programmes that address such multiple behaviours become imperative (Prochaska, 2008). The baseline data from the present study underscore the need for integrative programmes that address multiple risk behaviours effectively and can efficiently reduce the burden on schools and teachers consistent with the recommendation from Ten Dam (2002).

The results further supported gendered patterns for engagement in smoking, drinking and sexual activity, as evidenced by significant findings on the Chi square tests. These results raise an important awareness that health risk behaviour amongst the youth is still on the increase and that gender specific impact should be noted as change initiatives might need to reflect gendered patterns either in content or implementation.

Regression analyses indicated that life skills were important in reducing or preventing health risk behaviours among grades 8-10 learners. In particular, the combination of time management, social competence, achievement motivation, intellectual flexibility, task leadership, emotional control, active initiative and self-confidence significantly explained the variance in smoking, drug use, drinking and sexual activity. This finding is consistent with results of studies reported in the literature indicating that life skills training could reduce engagement in health risk behaviours (Hawkins et al., 1999). Smoking was significantly predicted by 1) the extent to which a learner perceives him or herself to maintain emotional control when

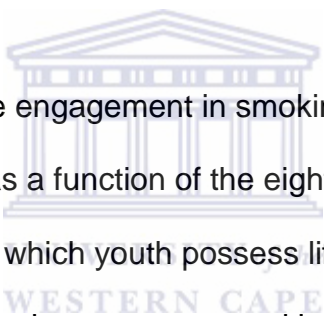
faced with potentially stressful situations, and 2) the extent to which a learner perceives that they make optimal use of time. In other words, increased perceptions of effective emotional regulation under stress (emotional control) and increased personal confidence and perceived social efficacy (social competence) could significantly predict non-smoking behaviour and vice versa.

Alcohol drinking was significantly predicted by 1) the extent to which a learner likes to initiate action in new situations, 2) the extent to which a learner is motivated to achieve excellence and put the required effort into it, and 3) the extent to which a learner perceives him or herself to maintain emotional control when faced with potentially stressful situations. That is, increased capacity for active initiative-taking in new situations and increased motivation and effort to achieve significantly predicts abstinence from drinking. Similarly, increased perceptions of effective emotional regulation under stress can significantly predict abstinence from alcohol.

Time management emerged fairly consistently as a significant predictor across three regression models suggesting that the extent to which a learner perceives that they make optimal use of time should be highlighted in life orientation curricula or other school-based intervention programmes. Physical activity was significantly predicted by the extent to which a learner likes to initiate action in new situations. That is, increased capacity for active initiative-taking in new situations and increased motivation and effort to be successful significantly predicts increased physical activity. Such a finding is consistent with reports in the literature (Jarvie & Maguire, 1994; Sallis, Prochaska & Taylor, 2000).

## 4.8 CONCLUSION AND RECOMMENDATIONS

The results from this survey underscored that engagement in health risk behaviours is still increasing despite the vast number and type of intervention programmes undertaken to educate youth on the harmful effects of health risk behaviours. Further the number and combination of health risk behaviours engaged in necessitates the development of integrative programming. The results further provided empirical support for gendered patterns in how youth engage in smoking, drinking and risky sexual activity that in turn requires programming to be sensitive to the impact of gender. The impact of gender will require the content, implementation, and composition of recipient groups to be gender –sensitive.



The results established that the engagement in smoking, drinking, drug use, sexual activity and physical activity was a function of the eight life skills domains, measured by the LEQ. Thus the extent to which youth possess life skills can significantly predict whether health risk behaviours are engaged in. The implication for programming is that life skills education or development must be included as part of the integrative programme.

The results of this phase presents the empirical findings of a baseline survey of HRBs engaged in and life skills or ability to handle life situations. Though the results provide clear directives and implications for the programme that needs to be developed, the theoretical framework of the broader study advocate the importance of exploring the subjective views of stakeholders regarding the health risk behaviour youth engage in. The next phase entails a stakeholder review that aims to determine the perceptions about the HRBS youth engage in and the factors influencing

engagement through focus group discussions with learners, teachers and life-skills trainers within the community that these learners come from.



## **CHAPTER 5**

### **CONCEPT MAPS OF STAKEHOLDER VIEWS**

#### **5.1 INTRODUCTION**

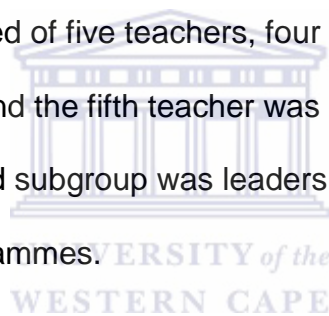
Chapter five sets out to meet objective two of the study and that is to formulate performance objectives for the programme, through stakeholder consultation. Chapter four clearly highlighted that the respondents were engaging in various health risk behaviours. The life skill domains that contribute to engagement in these behaviours include social competence, time management, achievement motivation, intellectual flexibility, task leadership, emotional control, active initiative and self-confidence. Chapter five aims to explore the reasons for this continued engagement in health risk behaviours and the possible solutions. The chapter will describe the specific methodology that was followed to collect and analyse the data gathered, report the results of the analysis and finally the discussion of the results.

#### **5.2 METHODOLOGY**

##### **5.2.1 Study population and sample**

For this phase, the study population included representatives from various stakeholder groups. The stakeholder groups consisted of 32 high school learners aged between 13-18 years, 4 high school teachers, a district representative involved in school based programmes, and two community leaders involved in youth development. Participants were purposively selected in order to get a sample that would provide in-depth information regarding health risk behaviours that youth participate in and the reasons for participation. Purposive selection of these

participants was based on the contribution they would make from their experience with youth/adolescents/high school learners. The focus of the focus group discussions and interviews would be to obtain feedback and input from stakeholders on what they perceive is needed to design successful youth development programmes. The participants represented different subgroups and were divided into those various sub groups which included the learners, teachers and community members. Three focus group discussions were held with the 32 learners from grade 8-10. The learners were purposively selected following stratification according to age, grade and gender. This yielded three groups divided into a group of 10 male participants, a group of 10 female participants and a mixed group of 12 participants. The second subgroup consisted of five teachers, four of the teachers were employed at schools in the community and the fifth teacher was involved at district level within the study community. The third subgroup was leaders within the community involved with youth development programmes.



### **5.2.2 Design**

Concept mapping applies an action research approach in which the research participants are encouraged to freely externalise the relationships among the concepts in their mind (Rebich & Gautier, 2005). The process of concept mapping is sensitive to the structural nature of participants' knowledge (Patton, 1990) and the relationships among concepts in participants' minds, misconceptions or alternative concepts can be identified (Duit, Treagust & Mansfield, 1996). Concept maps can be used to qualitatively depict the knowledge structures of mapmakers (stakeholders) through the explicit illustration of a 'visuo-spatial' network of propositions (Duit et al., 1996).

Englebrecht et al. (2005) describe concept mapping as a descriptive approach with five distinct phases. These include a preparation phase; a generation or brainstorming phase; a structuring phase where statements are sorted and ranked on the dimensions of importance for the study; an analysis phase which results in a concept map, and finally an interpretation phase where the results are analysed in a session facilitated by a facilitator. The present study used a modified version of concept mapping to identify qualitative concepts from sessions with identified stakeholder groups. During the preparation phase the authors read extensively in the focus area of the study to formulate the focus prompts. The second phase incorporated qualitative methods to generate participant responses to the focus prompts. The analysis phase incorporated thematic analyses of transcripts and the distilling of concepts generated from the three participant groups. Thus this study employed a qualitative design using focus group discussions and in-depth interviews.

### **5.2.3 Data collection methods**

The study used both focus group discussions and semi-structured interviews as the methods of data collection. The focus group discussion was used to get more in-depth information on the perceptions, insights and beliefs of learners, teachers and life-skills trainers on the engagement of learners in health risk behaviour. Wilkinson (2004) stated that at the simplest level, a focus group is an informal discussion among a group of selected individuals about a particular topic. Kamberelis & Dimitriadis (2008: 375) indicated that focus groups are 'collective conversations', which can be small or large. According to Liamputtong (2009) the primary aim of a

focus group is to describe and understand meanings and interpretations of a select group of people to gain an understanding of a specific issue from the perspective of the participants of the group. The purpose of the focus group discussion is to promote self-disclosure among participants and to obtain in-depth information on concepts, perceptions and ideas of a group. The characteristics of a focus group discussion according to Krueger & Casey (2000) include (i) having 5-10 participants; (ii) composed of participants who are similar to each other; (iii) Provide qualitative data; (iv) involves a topic of interest that has been carefully planned and (v) session length is under two hours. Participants were chosen based on their knowledge or experience on the topic and questions and probes were planned in advance to focus attention on the topic. The discussion was planned to promote spontaneous dynamic interaction between participants so that ideas could be explored. The outcomes of the focus group discussions were therefore based on the responses of the group. It was thus deemed appropriate to make use of focus group discussions to explore the health risk behaviour that learners engage in, the reasons why learners engage in these behaviours and possible ways to address the problem. Three focus group discussions were conducted with a total of 32 learners.

The semi-structured interviews focused on Health risk behaviour engagement among learners in grade 8-10 and were guided by the following questions:

- What is the health risk behaviour that learners in grade 8-10 engage in?
- What are the reasons of factors that influence the health risk behaviour engagement of learners?



- Where and how are learners exposed to engagement in health risk behaviour? What should be included in youth development programmes to assist in reducing engagement in health risk behaviour

In addition, semi-structured interviews were held with five purposively selected teachers (of whom four were teachers at secondary schools in Paarl and one was a district representative involved with school based programmes for the WCED) and two community leaders from community organisations who were actively involved in life-skills training to reduce health risk behaviour amongst the youth in Paarl and surrounding area.

#### **5.2.4 Data collection procedure**

Focus groups were conducted at the school, which was a convenient and familiar location. At each session a short description of the purpose of the project was given to familiarise participants with the process that was planned. Two researchers were involved in the focus group discussion of which one was the facilitator and the other was a note taker who made notes and recorded the observations. On the day of the focus group discussions all participants signed a confidentiality agreement form. The facilitator then asked participants to respond to stimulus questions. The questions focussed on the following: "The reasons learners engage in health risk behaviour and interventions needed to assist in combating health risk behaviour among learners." Sessions were audio-recorded and lasted an average of one hour and were later transcribed verbatim.

Individual interviews were held at a place and time convenient for the participants. All the participants signed consent to participate in the study and the interview. At each session a short description of the purpose of the project was given to familiarise participants with the process that was planned. The facilitator then asked each participant during each individual interview to respond to the same stimulus questions. The questions focussed on the following: “The reasons learners engage in health risk behaviour and interventions needed to assist in combating health risk behaviour among learners.” Sessions were audio-recorded and lasted an average of one hour and were later transcribed verbatim. After each interview the participant was given a summary of the interview from the notes that the facilitator/interviewer made to ascertain that this is in accordance to what the participant has responded to in the interview.



#### **5.2.5 Data saturation and data analysis**

According to Carlson and Glenton (2011), data saturation can be achieved by conducting interviews or focus group discussion with different categories of informants in order to refine the theories that emerge. In this study data was gathered from various informants and the information obtained from each interview was further unpacked with the next interview.

Qualitative data analysis was undertaken by the researcher. Focus group and interview transcripts were analysed using content analysis. Recurrent themes were identified independently by the researcher and the two thesis supervisors as it emerged from the data. Following this, an analysis meeting was convened at which

the themes identified by each were compared and discussed. Following agreement on these, each one undertook a full analysis of approximately half the transcripts, with a small overlap to allow for further comparison of the theme interpretation and allocation of data extracts to particular themes. Themes were collated into four subsidiary concept maps that were graphically represented in one meta-figure

The data generated from the focus group discussions and interviews was analyzed as described above and represented in an objective form as visual maps.

The maps aim to highlight the priority areas for each stakeholder group in identifying key areas to be included in a youth development programme. Similarities and disparities between the stakeholder groups could be identified and if appropriate subgroup analyses could be carried out using the baseline demographic data. The “key areas that will be presented are the areas that are of most importance for more than one stakeholder group and so are of particular importance for planning the intervention.



#### **5.2.6 Trustworthiness of the data**

The aim of trustworthiness in a qualitative inquiry is to support the argument that the inquiry’s findings are “worth paying attention to” (Lincoln & Guba, 1985). Four issues of trustworthiness demand attention namely credibility, transferability, dependability, and conformability. To address credibility, all stakeholders were included that play an active role within the study setting concerned with health risk behaviour amongst learners aged 13-18 years in grade 8-10 in order to ensure that information was obtained from various sources. This technique, while not meeting the technical definition of “triangulation” (Lincoln et al., 1985), provided a richer and more credible data set than if information was only

obtained from one source. During the focus group discussions to ensure that the data captured during this stage was trustworthy, the data was transcribed verbatim from the recordings, and member checking was done with the group and individually interviewed participants in order to verify the recorded responses. The member checking, notes and observations were done to enhance the validity of the study.

To address transferability, the data analysis documents used to generate the answer to the research questions was made available to the thesis supervisors. The complete set of data analysis documents used within the concept maps is on file and available upon request. To address the issues of dependability and conformability, an independent audit of the research methods used was done by competent peers in this case, the thesis supervisors. All information generated was thoroughly examined by the supervisors and these include the original transcripts, data analysis documents, comments from the member checking, and the text of the dissertation itself.

### **5.2.7 Reflexivity**

Maxwell, (1996), argues in favour of *critical subjectivity*, which he describes as, a quality of awareness in which we do not suppress our primary experience; nor do we allow ourselves to be swept away and overwhelmed by it; rather we raise it to consciousness and use it as part of the inquiry process. The researcher has been involved with the development of youth over an extended period of 15 years which include raising three daughters. In his career he has played a mentorship role with various young people whether through supporting students

within their studies as a lecturer or developing young athletes within a high performance environment. Within each of the areas mentioned many a challenge has been faced and experienced whether from the perspective of the youth or the researcher (as lecturer, professional or father engaging with young people). The development of young people have thus become a passion that acts as a strong motivator to understand more in order to create an opportunity to have a bigger impact in youth development but more importantly change can only take place when one has a thorough understanding and insight into the challenges that young people face. Thus to ensure that the responses from participants were neither misinterpreted nor biased in their translation, the interviews were transcribed verbatim and quotes were included to support the participants' experiences of the themes and sub-themes.



## **5.3 RESULTS**

### **5.3.1 Demographic data of the participants**

Focus group discussions were held with learners aged 13-18 years from grades 8-10. The individual interviews were also held with purposively selected teachers (5) and community members (2). The teachers had between 5-25 years teaching experience amongst them and were involved with these learners on a daily bases whether through teaching, sport or assisting in resolving social issues that the learners might be faced with. The community members were involved with life skills training among the youth in the Paarl and surrounding areas for more than 10 years. An additional interview was conducted with a teacher who was responsible for implementing education and skills development programmes in schools, pertaining

to prevention of HIV/AIDS and other health risk behaviours. Further interviews were conducted with two community members (one of whom is a school principal) who are from community organisations that were identified as important sources of information since they had an average of 10 years' experience in health risk behaviour and life skills programmes with the youth.

### **5.3.2 Emerging themes**

The findings demonstrated that participants felt that the content of programmes aimed at effectively combating health risk behaviours amongst youth should be informed by four major aspects or themes and will be represented within a concept map: 1) The type of health risk behaviours that youth engage in, 2) Perceived reasons why youth engage in health risk behaviours 3) Places of exposure to health risk behaviour, and 4) Specific content or focuses.

#### **Theme 1: Health risk behaviours that youth reportedly engage in**

In order to confirm the information gained from the quantitative survey, the participants were asked to identify the common health risk behaviours that learners participate in according to how they perceive them. Once this was corroborated, the participants further expressed that the content of proposed programmes should address information on the health risk behaviours that learners were currently engaged in. Table 5.1 reflects the most illustrative quotes per stakeholder group per health risk behaviour.

**Table 5.1: Health Risk Behaviours that youth engage in.**

Identified HRB	Challenge	Illustrative Quote
Smoking	Smoking has been identified as increasing, with a major impact on health	<p>“Smoking, drinking alcohol and sexual activity are the most common health risk behaviours” (learner)</p> <p>“Smoking, drinking alcohol, drug use and sexual activity are the main health risk behaviours at our school” (teacher)</p> <p>“Smoking is a big problem in schools” (Community leader)</p>
Sexual activity	Increased incidence of teenage pregnancy in schools as a result of unprotected sex that also poses a risk in terms of contracting STDs and HIV/AIDS	<p>“Smoking, drinking alcohol and sexual activity are the most common health risk behaviours” (learner)</p> <p>“In one year in the same grade at the same school ... there were more than 40 teenage girls who were pregnant” (teacher)</p> <p>“They are sexually active – have access to porn” (CL)</p>
Crime	Increased engagement in behaviour and activities that are illegal	<p>“Take part in crime due to peer pressure” (learner)</p> <p>“Children are breaking into houses now” (teacher)</p>

		<p>“Adults are using them to gather information to commit a crime, so these youth...not only boys...boys and girls are used to enter houses where bigger people cannot enter, so they are involved in crime from a very young age”.(CL)</p>
Violence	Conflict is resolved through violence rather than through prosocial skills	<p>“Stress at home makes you take it out on someone else at school” (learner)</p> <p>“Conflict is resolved through violence”. (teacher)</p> <p>“They engage in fighting” (CL)</p>
Drug and alcohol use	Drug & alcohol use are increasing, and are thought to reduce the ability to make informed decisions about engaging in other behaviours that pose risks to the youth	<p>” Alcohol makes you think you are strong” (learner)</p> <p>“Gansterism and Tik are a huge problem in the area” (teacher)</p> <p>“Hubbly bubbly, instead of putting in water they put in alcohol and instead of flavour they use marijuana” (CL)</p>
Obesity	Obesity poses a risk to health since it causes chronic diseases of lifestyle like hypertension that are	<p>“obesity - causing high blood pressure” (CL)</p>



	increasingly diagnosed in younger people. This might relate to physical inactivity and poor impulse control related to eating	
--	---	--



## **Theme 2: Reasons why youth engage in health risk behaviour**

Another clear theme that emerged was the perception about why youth engage in health risk behaviours. Five distinct sub-themes were identified across all three groups of stakeholders. These themes included peer pressure, role modelling, experimenting, dysfunctional homes and communication. Within the theme of peer pressure it was evident that learners participated in health risk behaviours because there was a need for them to feel part of or belong to a group and not to be left out. This sense of needing to belong meant that they would go with what others think in order to be included. Within the subtheme of role modelling there is a strong focus on the negative impact of role models on youth and some of this may have lead to the experimenting phase where they want to know what all the hype is about.

In addition, dysfunctional homes also emerged as key reason for engaging in health risk behaviour. This is reflected in the responses relating to communication as well where the learners escape from their personal situations at home and thus join groups where they feel a sense of belonging. Table 5.2 reflects the themes and relevant quotes associated with the themes.

**Table 5. 2: Perceived reasons why youth engage in health risk behaviours**

<b>Subthemes</b>	<b>Experience</b>	<b>Illustrative Quote</b>
Peer pressure	Feeling of acceptance	<p>" They don't want to feel left out" (teacher)</p> <p>" We fear being rejected by our friends" (learner)</p> <p>"Influence from friends" (Community Leader)</p>
Role modelling	Poor role models	<p>"I see the example from my parents who are drinking and smoking" (Learner)</p> <p>"Their role models in the community is the gangsters who use drugs, alcohol and have lots of sexual partners" (Teacher)</p> <p>"Parents having a very low morale, not good role models for children" (Community Leader)</p>
Experimenting	Understanding by doing	<p>"We also want to know how it feels to drink" (learners)</p> <p>"Learners express to me as a teacher that they will not be an addict and just want to know what it feels like to use drugs or drink alcohol." (teacher)</p> <p>"for some of them their behaviour stems from I am experimenting" (CL)</p>
Dysfunctional homes	Home environments does not provide support	<p>"We engage in risky behaviours to escape from problems at home." (learner)</p> <p>"The majority of the learners from this school</p>

	or evidence of prosocial behaviours and coping	come from homes where mum and dad both abuse alcohol and use drugs” (teacher) “Learners do not have family support.” (cl)
Communication	Not knowing how to express thoughts, feelings and emotions	“Due to the circumstances that the learners grow up in, they are not able to communicate what they feel and therefore have the tendency to express their frustration through violence. (teacher) “There’s a lack of communication in parents that may cause health risk behaviours in children.” (cl)



### **Theme 3: Places of exposure to health risk behaviour.**

Participants across all three subgroups (learners, teachers and community members) felt that the content of effective programmes should identify the contexts, sources or places where youth are perceived to be exposed to various HRBs. From their responses it becomes evident that participants in all subgroups (learners, teachers and Community members) assumed that “exposure” referred to HRBs such as drinking/alcohol and drugs, and did not include other health risk behaviours such as physical inactivity. Table 3 summarises the places where youth were exposed to health risk behaviours according to the three groups.

**Table 5.3: Exposure to health risk behaviour**

Learners	Teachers	Community Members
<p>“Lots of parents allow children to drink at New Year or at family events”</p> <p>Fellow classmates bring alcohol or drugs to school or these sport events”.</p> <p>“The public swimming pool is a place where our bags are not checked therefore we can smuggle alcohol in with us”.</p>	<p>“Learners have to get to sport events on their own thus affording them the opportunity to come drunk to the event as they drink at each other’s homes beforehand”.</p> <p>“Learners smuggle alcohol and drugs to school or sport events”.</p>	<p>“We find that children as young as seven or eight years old are exposed to alcohol, especially over weekends, it is there, it is available and we try it”.</p> <p>“The curiosity of a young inquisitive mind is a big thing. He does not need encouragement, he sees the bottle of beer standing there and the older brothers have finished half of it and is passed out. He is there with all but two or three of his friends and they just want to try it”.</p> <p>“The same with smoking, the mother smokes and drinks and the boyfriend smokes and drinks. In that whole community it is not something that is frowned upon, it is something that is accepted”.</p>

#### **Theme 4: Specific content or focuses of proposed programmes.**

Participants expressed that effective programmes should also include specific content that were reflected in three subthemes namely: 1) Life skills, 2) Exposure to the effects of health risk behaviour, and 3) Literacy and expressive abilities. Life skills, as specific content to be included, were identified by all participants as integral. This content included four subthemes as illustrated in Table 4: a) ability or capacity in skills such as decision-making, resistance to peer pressure, b) identity concerns such as self-esteem, crisis management, c) internal locus of control, and d) executive functions that enable the delaying of gratification as priorities.

**Table 5.4: Specific content thought to be included in proposed youth programmes**

<b>Subthemes</b>	<b>Experience</b>	<b>Illustrative Quotes</b>
Life skills training	The acquisition of skills for prosocial living, and effective management of self and relationships could mitigate engagement in HRBs	<p>“Youth development programmes that improve the life skills of learners are non-existent. Learners do not know how to cope with crisis in their lives”. (teacher)</p> <p>“We would like to be taught how to cope with crisis in our lives. We do not know how to say no and want to belong”. (learner)</p> <p>“Self equipping in learners: coping with crisis, decision-making, handling</p>

		peer pressure, handling relationship pressure, and dealing with abuse.” (CL)
Exposure to effects of HRB	Graphic or shocking visual or physical evidence of drug use is thought to be a deterrent to engaging in HRBs	“We need practical experiences. Take us to see people who are infected or are addicted to drugs” (Learner) “Learners need to practically see the consequences of health risk behaviour. They feel that it would never happen to them. They will not be addicted.” (Teacher)
Literacy and expressive abilities	Increasing their abilities to express their thoughts and feelings in a prosocial manner	“Education: being educated helps you think about what is good and not good.” (learners) “We need kids to read a lot more. In doing so they learn to express themselves better. They communicate better and their world becomes so much bigger” (teacher) “Special classes be presented at school” (CL)

## 5.4 DISCUSSION

Chapter five sets out to meet objective two of the study and that is to formulate performance objectives for the programme, through stakeholder consultation.

Therefore the chapter aimed to explore the reasons for the continued engagement of youth in health risk behaviours and the possible solutions to address the delay, prevention and reduction that engagement. Concepts maps were used to distil the information into a visual format in order to build a matrix of information that informs the design of the youth development programme. During this phase, three focus group discussions were conducted with a total of 32 learners including a male group of 10 learners, a female group of 10 learners, and a mixed-gender group consisting of 12 learners (6 boys and 6 girls) from the age groups 13-18 years in grade8-10. In addition, semi-structured interviews were held with five purposively selected teachers (of whom four were teachers at secondary schools in Paarl and one was a district representative involved with school based programmes for the WCED) and two community leaders from community organisations who were actively involved in life-skills training to reduce health risk behaviour amongst the youth in Paarl and surrounding area. Three subgroups therefore gave stakeholder input namely the learners, teachers and community members. Four themes emerged that should be considered when designing a youth development programme and these themes were distilled through concept maps. The findings from theme one suggest that examining the health risk behaviours youth are currently engaged in enhances the effectiveness of programmes. From the maps smoking, drinking, drug use, crime, violence, sexual activity emerges as health risk behaviour that the youth engage in. Thus emphasizing the importance that programmes address current specific health







participants for inclusion in the content of programmes aimed at intervening in engagement in HRBs amongst youth. The notion that dysfunction in the home environment negatively impact adolescents who in turn engaged in HRBs in order to self-medicate the impact of dysfunctional homes was consistent with literature (Orriols, Gaillard, Lapeyre-Mestre & Roussin, 2009) that has been used traditionally to justify its inclusion in programme content. Closely related to this is the ability or inability of youth to express their thoughts and emotions which leads to frustration that is then expressed through anti-social means such as violence (Stoltz, 2007). Thus participants perceived programmes where the content addresses the expressive abilities of adolescents as it relates to emotion regulation and the mediation of the impact of dysfunctional homes, might increase its effectiveness.

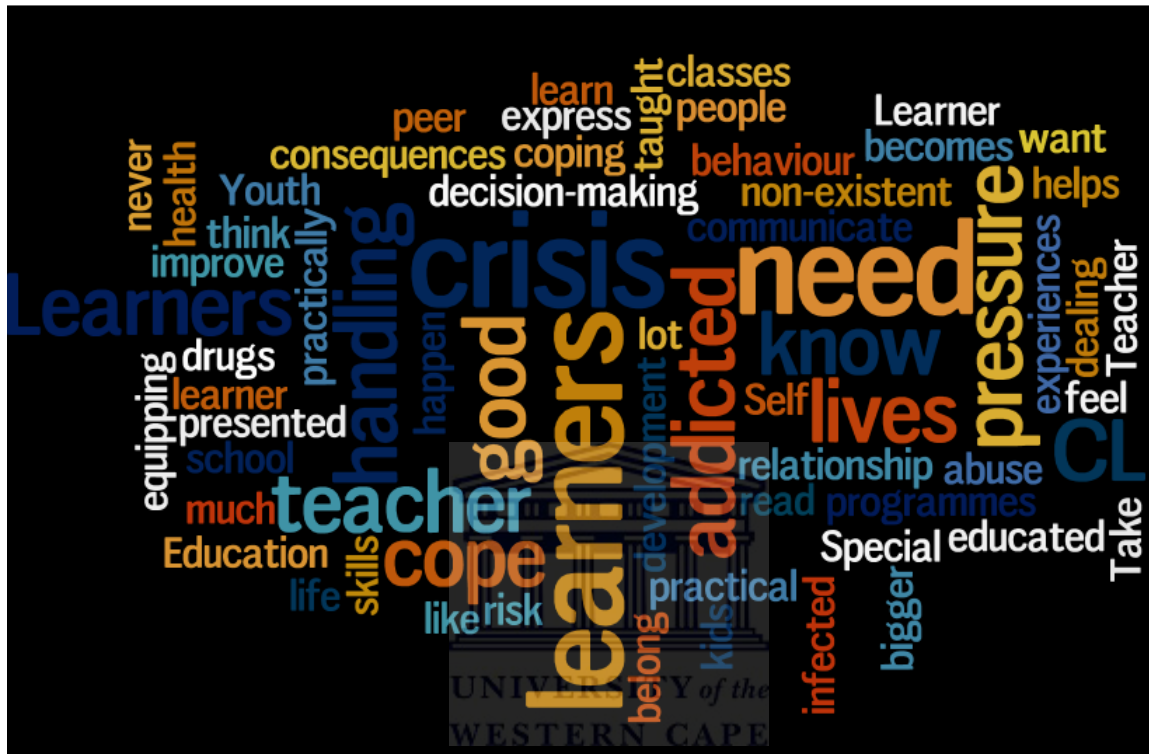
**Figure 5.3 Theme 3: Places where youth are exposed to engagement in Health Risk Behaviour**



Another area that emerged was the context where youth were exposed to health risk behaviour and this included peer groups, the family and communities. Peer groups provide both opportunity and exposure to various HRBs (Reddy et al., 2010). The participants indicated that in the family context, learners are not only exposed to HRBs through modelling or observation, but they are also invited to participate in the HRBs by parents and figures of authority. This radically alters the boundaries between parent and youth subgroups, and dramatically undermines the authority of the parent subgroup to challenge their children's engagement in HRBs (Smetana & Asquith, 1994). In supervised contexts such as family homes, schools and youth groups, inadequate supervision and/or monitoring create opportunities for engaging in HRBs, such as drinking at school events whether sporting, recreational or educational. This is consistent with Burlew, Johnson, Flowers, Peteet, Griffith-Henry and Buchanan (2009) who reported that the role of supervision is integral in adolescent engagement in HRBs. Thus the findings indicate participants' perception that programmes that address places of exposure to HRBs might be more effective in combatting engagement in HRBs. The inclusion of peer pressure is important since adolescence is characterised by a normative shift from identification with parental or familial relationships to peer relationships (Sadock & Sadock, 2003). Traditionally programme content focused on the role of negative peer influence in anti-social behaviour and almost assumed that peer pressure was negative by definition (Swadi & Zeitlin, 1988). Thus it would be useful for programme content to make the distinction between positive and negative peer influences while normalizing the need to identify with peers (Valente, Rilt-Olsen, Stacy, Unger, Okamoto & Sussman, 2007). In this way, programme content can validate normal adolescent

processes and highlight the role of peer influence on decision-making particularly with regard to engagement in health risk behaviour.

**Figure 5.4 Theme 4: Content of youth development programmes**



Participants had clear perceptions about the content that should be included in youth development programmes. Important to note is a criticism lodged against existing programmes by community members and the teacher subgroups that existing programmes do not sufficiently, if at all, address the development or augmentation of life skills as a specific focus in their programme content. This perception in turn influences how stakeholders engage and buy into programmes that are being offered currently, despite the fact that these programmes do not address life skills.

With regards to the content of the programme it was clear that life skills and more graphic or shocking exposure to the effects of engaging in health risk behaviour were perceived as more valuable. Though all three subgroups commented on literacy, the

learners perceived it more as “education” which somehow reduces vulnerability to engagement in HRBs. The teacher and community leader subgroups were more able to articulate clearly that increased literacy levels translated into an increased ability to express and articulate their thoughts and feelings, as well as to establish the link between their thoughts, feelings and behaviour. This would enable them to engage more prosocially using a range of life skills rather than engaging in HRBs as an escape from their internal and contextual challenges.

In most cases a fairly consensual picture emerged across the three subgroups, though there was some differentiation in the way respective subgroups thought about the routes to engagement in health risk behaviours. The contributions of each subgroup were reflective of their relative positions regarding engagement in HRBs amongst youth.

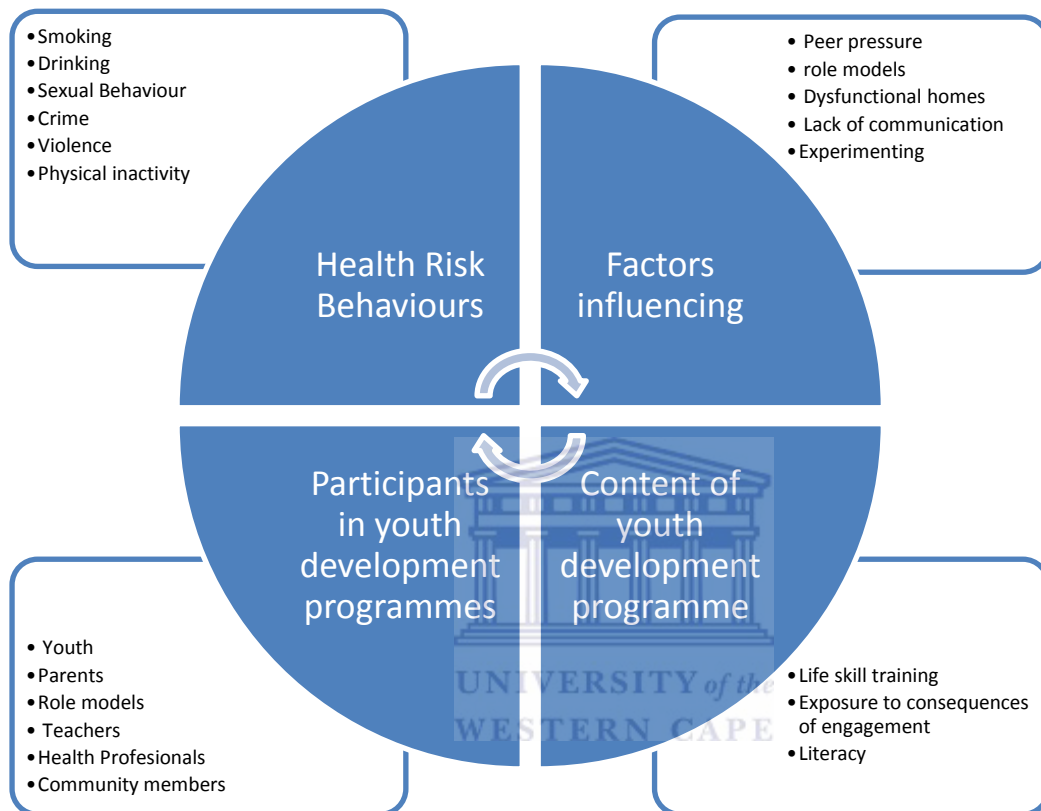


## 5.5 CONCEPT MAPS

Based on the information that emerged from the present study, four concept maps were distilled from the results discussed above. The matrix presented below is a summary of the concept maps which emerged from the data (Figure 5.5). Each quadrant represents a concept map that corresponded to the themes discussed above and is conceptualized as interacting with one another. The derived concept map suggests that the development of programme content should start with contextual relevance achieved by understanding the range of HRBs youth engage in. This in turn allows for an exploration of the pathways in which engagement has come about. The second and third quadrants illustrate this through their focus on the reasons why youth engage in HRBs and the places where they are exposed to

HRBs respectively. Once the content has addressed what they do and why they do it, the process of skills development can commence to combat engagement in HRBs.

**Figure 5.5: Concept map**



## 5.6 CONCLUSION

This chapter highlights the valuable input gained from stakeholders, to whom the designed youth development programme will have a direct impact on. The themes that have emerged and that are distilled in the combined concept will act as a guide for the following chapter where a systematic review will be undertaken to explore the content used in interventions pertaining to health risk behaviour reduction amongst the youth.



## **CHAPTER 6**

### **PHASE 3: METHODS AND STRATEGIES**

#### **6.1 INTRODUCTION**

During chapter four and five the baseline of engagement amongst youth and the stakeholder perception resulting in a concept map with regards to health risk behaviour was identified. This chapter will now focus on the important task of the consolidation of literature on interventions that will assist in the identification of methods and strategies used in health risk behaviour interventions amongst the youth. The objective for this phase of the study was thus:

To determine the content of school-based interventions reported in literature and its effectiveness in reducing or delaying health risk behaviours amongst the youth.

The research question for this phase was:

What is the content of school-based intervention programmes for preventing, delaying and reducing engagement in health risk behaviours amongst adolescents?

#### **6.2 METHODOLOGY**

For this part of the study a systematic review was conducted. A systematic review is a “high-level overview of primary research on a particular research question that tries to identify, select, synthesize and appraise all high quality research evidence relevant to that question in order to answer it” (Cochrane Collaboration, 2013).



For Evidence Based Practice purposes, systematic reviews provide practitioners with pre-filtered evidence, save time, and minimize the need for appraisal expertise (Schlosser, 2007). This is an appropriate methodology for the current research question as it provided a systematic summation of studies reporting on the content and methodological rigour which is exactly what is lacking in current research on the topic. A systematic review will enable the researchers to compile and synthesize data from all relevant sources meeting the inclusion criteria, whilst minimizing the influence of bias, in an effort to effectively answer the proposed research question.

The aim of the systematic review was to identify the empirical evidence related to the content of school-based intervention programmes for preventing, delaying and reducing engagement in health risk behaviours amongst adolescents. A systematic review was conducted of both local and international literature to address this research objective. The articles to be reviewed were systematically collected and reported in a narrative form. Before the commencement of the review, a systematic review protocol was drawn up in order to guide the process (Appendix H).

PICO is a standardised format for constructing clinical questions to ensure formation of searchable, answerable questions (Kitchenham 2004). Thus it was decided that the articles will be selected according to population, intervention and outcome (PIO) to improve the relevance of the studies included. The population was adolescents/youth/high school learners, the intervention had to focus on school based programmes and the outcome was related to reduction in health risk behaviour amongst the youth at high school level. The review also focused on the programme content as it relates to theoretical orientation or underpinning, scope of the interventions, nature of intervention activities and facilitation styles.

### 6.2.1 Inclusion Criteria:

*Types of studies:* The review considered quantitative studies. Experimental and quasi-experimental designs were considered for inclusion in a narrative summary to enable the identification of current best evidence regarding the use of a youth development program to combat health risk behaviours. Studies were eligible for inclusion if they reported on interventions with youth. These interventions had to address health risk behaviours in some way and must have been school-based.

*Types of participants:* This review considered studies that included adolescents, specifically learners in high schools.

**Time period:** 2002- June 2013



### 6.2.2 Exclusion Criteria:

Studies were excluded if they were not peer-reviewed, were not published within the designated time period, or were not found in one of the listed databases or in the reference lists of related articles. Studies were also excluded if they did not meet the criteria needed to answer the proposed research question. Therefore all studies which did not report on interventions, did not address health risk behaviours, were not school-based, or did not include our target population were excluded. Articles that required payment for viewing or accessing the full text i.e. those that were not in the public domain were also excluded.

### **6.2.3 Data collection process**

The search strategy aimed to find published studies and was conceptualized at three levels: 1) database identification, 2) search terms and 3) search process

#### **6.2.3.1 Database identification**

The databases used to conduct the search were chosen based on the premise that they are central to social science research, health care interventions research and the topic of the research study. Thus the databases were Cochrane, Biomed Central, Pubmed, Science Direct, Ebscohost and SA Publications. Furthermore Psych Articles was seen as a core database in psychology where research on Health Risk Behaviour could be published. . Other databases with a narrower focus that could be equally appropriate such as CINAHL (nursing and allied health professions) which could have published work around health risk behaviour from an allied health perspective were also included.

#### **6.2.3.2 Search terms**

Search terms were selected based on the research question, and Boolean words as well as truncation were used as part of the search strategy. The phrase “youth development programme’ was interchanged with the American spelling of program. Sigillary terms such as health risk behavior were interchanged with health risk behaviour. Articles were searched for on the UWC electronic database. The search terms used in the guidelines search engines were simplified due to the nature of the site (Table 6.1).

**Table 6.1: Key words**

<b>Key words</b>
Youth development program
health risk behavior or youth development programme
Life skills training and youth

### **6.2.3.3 Search process:**

The searches for suitable or potential titles were conducted by entering the keywords in strings or Boolean phrases to enhance the effectiveness of the search. The search was conducted by a team of four research assistants under the direct supervision of the primary researcher. The primary researcher completed a brief training on the search strategy and use of data bases and search engines. Then the team conducted the searches in a laboratory where hits or results could be compared in real time to ensure that searches were replicable. The primary researcher was present on site to manage quality assurance and compliance with search strategy.

The search process has three steps: Title search, Abstract assessment, and Full text assessment.

*Title Search:* The titles identified through the database search using the identified keyword strings were reviewed by two independent reviewers. The aim was to select papers for inclusion based solely on the perceived relevance of the title to the review

aims. Any disagreement that arose between the reviewers was resolved through discussion until consensus was reached. The one supervisor acted as a third party control, helping reviewers to reach a consensus when they differed in opinion. Consensus during this part was reached concerning the use of systematic review articles that would be used for reference mining. Information for all the selected titles was recorded in a summary table that included the evaluation of each reviewer and the final outcome (appendix J). The titles identified as appropriate were included in the next step i.e. abstract assessment

*Abstract Assessment:* Abstracts of all suitable titles identified during the title search were read independently by a pair of reviewers and then evaluated relative to the inclusion and exclusion criteria of the review as well as the PIO. The same method of review was followed with regards to resolving disagreements. Abstracts that satisfied the inclusion criteria were identified for the full text review. Information for all the selected titles was recorded in the abstract summary table (Appendix I).

*Full Text Assessment:* Papers selected for retrieval were assessed by two independent reviewers for methodological rigour using a critical appraisal tool. Assessment of the articles was done independently and then discussed by the two reviewers. Final scores for each item and by extension the article had to be agreed upon by the reviewers. As before, one of the supervisors acted as a control to verify decisions made at all stages of the review process.

#### 6.2.4 Methodological Quality Assessment

*Critical appraisal tool-* Critical appraisal tools specifically developed for intervention studies were reviewed for appropriateness (Hannes, 2011). The tools either were overly simplified and assessed too few aspects considered important in methodological rigour or were too focused on the components of particular methods such as randomized control trials. In this way it was felt that a tool needed to be developed that would sufficiently address the aspects central to assessing methodological quality and would accommodate the range of designs that could be used in intervention studies. The tool was constructed to suit the specific needs of the study based on expertise in the theory of research methodology as evidenced by teaching, practice and qualifications in this area. Two reviewers were trained in administering the tool and the content of items was explained to assist reviewers with their evaluation process. The draft appraisal tool was then tested or piloted by the reviewers on a sample of four articles to assess ease of administration, logical coherence and content sufficiency when used with full text articles. The piloting also served as training for the reviewers. The tool was then refined based on the feedback given by the reviewers. The revised tool assessed 4 domains namely purpose of the measure, methodological measure, general considerations (Quality of the information) and the overall rating of the publication. Each domain consisted of items that were scored using either forced choice or likert scale answers. The number of items per scale ranged between 6 and 15. The tool produced a score for each subscale and a total score out of 64 that was expressed as a percentage. Each article had the potential to score weak (0-40%), moderate (41-60%), strong (61-80%), or excellent (81-100%). All full text articles were then assessed using the finalized or revised tool (Appendix J).

*Threshold scores:* The threshold score for inclusion was set at 60% in other words articles that were evaluated to have a “strong” methodology. Fifteen articles were included in the summative review after satisfying the threshold score.

Meta synthesis: The content of the articles included in the final stage was summarized using a *data extraction sheet*. The extraction sheet was organized into four main sections, “General Description”, “Intervention”, “Methodological Appraisal” and “Analysis and Results.” For ease of use each section was captured in a separate table. Under each main heading or table were relevant sub-headings. General description had the sub-headings author, target group, HRB`s targeted, Geographical location and setting. Intervention had the sub-headings authors, theoretical orientation, scope of the intervention, nature of activities and facilitation styles. The sub-headings for methodological appraisal were authors, design, participants, sample type, sample style, sample size and outcome measures. Under analysis and results were the following sub-headings namely authors, data analysis, empirical evidence/results and authors conclusions. All completed tables were sent to one of the supervisors for verification.

### **6.3 RESULTS AND DISCUSSION**

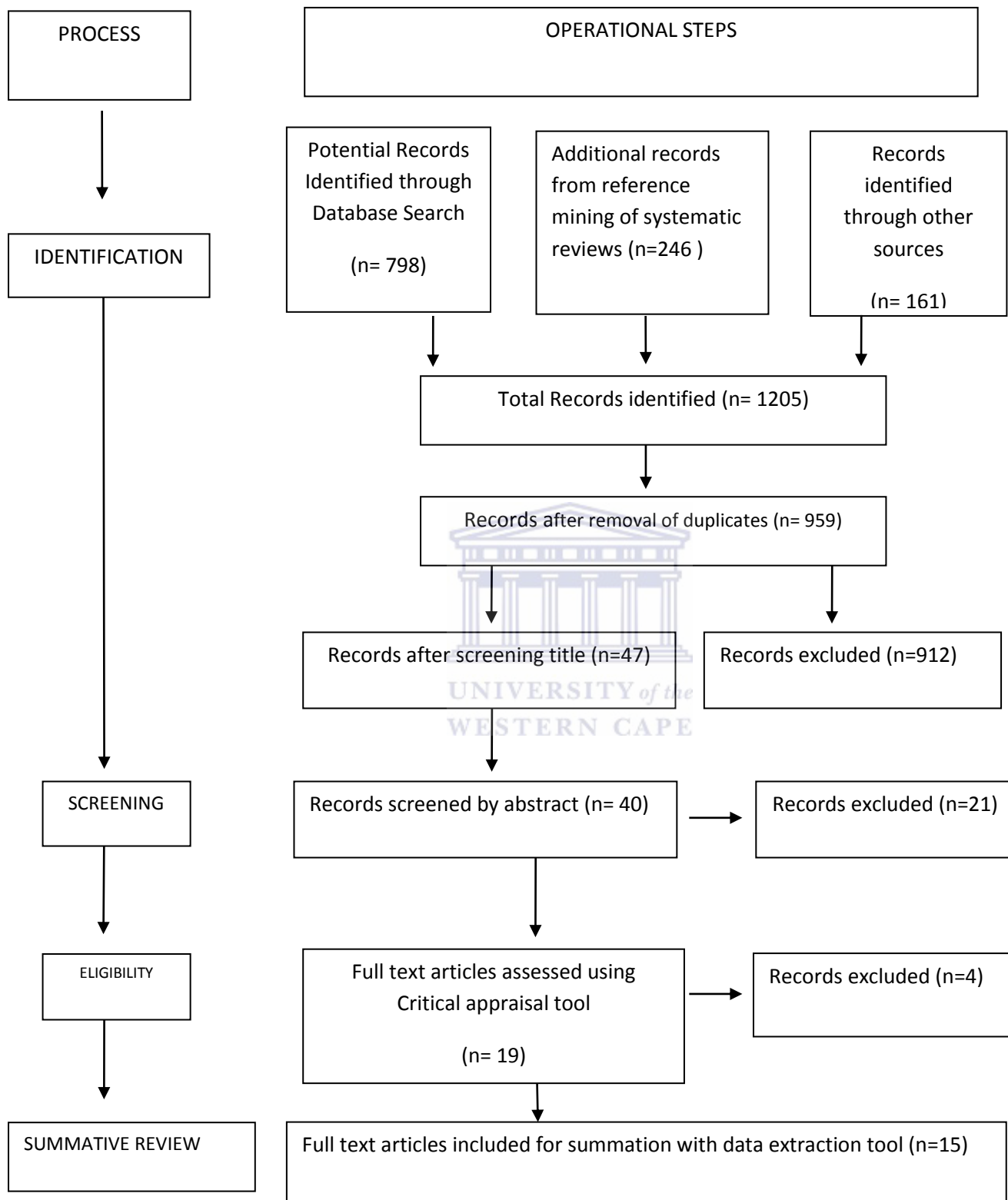
The total records identified at the start of the review were 1205. This number was reduced to 959 after all duplicates were removed. Forty seven (47) of the articles were included during the title search, 40 of which proceeded to the abstract search. Twenty one (21) articles were excluded during the abstract search. Common reasons for exclusion during this stage were incorrect target group, not being

intervention studies, studies which were not school-based, and studies providing a systematic review. Of the 19 articles that underwent full text analysis 4 were excluded. Common reasons for exclusion included incorrect target group and non-school based interventions. 15 articles acquired an acceptable threshold score during the full text analysis and these articles were used to compose the systematic review. A diagram detailing the search/screening process can be found in Figure 6.1 below.





**Figure 6.1 – Diagram of Review Process**



\*Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(6): e1000097. doi:10.1371/journal.pmed1000097

### 6.3.1 General Descriptions of the Studies

*Geographical location:* The vast majority (Two thirds) of the studies were conducted in the USA (Werch et al. 2005; Spoth et al 2008; Wright & Burton 2008; O'Brien 2010; Soper et al 2010,). Two studies were based in South Africa (Visser 2005 & Visser et al 2012) and one study each was done in Taiwan, Europe and India (Huang et al 2011; Faggiano et al 2006 & Reddy et al 2002).

*Target group:* Nine of the studies targeted intermediate level students (Grade 6-9) and the remaining six studies targeted both intermediate and senior level students. None of the studies targeted only senior level (Grade 10-12) students.

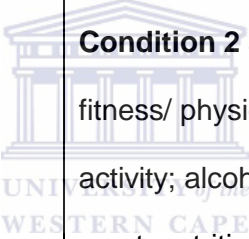
*Health risk behaviours targeted:* Alcohol use and binge drinking, tobacco use, drug use, lack of physical activity, poor nutrition, verbal and physical violence, risky sexual behaviour, and HIV/AIDS risky behaviour. The most commonly targeted health risk behaviour was alcohol use and binge drinking followed closely by tobacco use and drug use. There were no major differences between the studies conducted in the USA (Werch et al. 2005.; Spoth et al. 2008; Wright & Burton 2008; O'Brien 2010; Soper et al 2010) versus those conducted in Europe, India, and Taiwan (Huang et al 2011; Faggiano et al 2006 & Reddy et al 2002) regarding the health risk behaviours targeted however, both of the articles targeting risky behaviour associated with HIV/AIDS were conducted in South Africa (Visser 2005 & Visser et al 2012).

*Setting:* As one of the requirements of the inclusion criteria, all studies were school-based however, some studies also included home-based components.

**Table 6.2 General Description of studies**

Authors	General description				
	Type of Study	Target group	HRBs targeted	Geographical Location	Setting
Reddy et al (2002)	Quantitative, Two-year group-randomized trial; Intervention; Pre and Post Test	Grade 7 learners	Tobacco and alcohol use	New Deli, India	School-based and home-based
Spoth et al (2008)	Quantitative. Five year intervention. Experimental and control group	Grade 7 - Grade 12 Students	Alcohol, tobacco and marijuana	USA	School-based
Smith et al (2004)	Quantitative. Compared the cost-effectiveness of Life Skills Training (LST) to a LST curriculum infusion approach (I-LST) for two years.	High-school learners in the intermediate phase.(Grade 7; 8; 9).	Alcohol use; Binge drinking; Marijuana use; Inhalant use; Cigarette use/smoking.	The United States – Focus on high-schools in Pennsylvania.	School based: Nine rural school districts in central Pennsylvania.

O'Brien et al (2010)	Quantitative, cross sectional, assess physical activity, nutrition, and tobacco-related policy associations with an intervention.	Students in high-school and middle-school across the State of Maine. (Grades 6 – 12).	Physical activity; nutrition; tobacco use.	The United States – Focus on high-schools in the state of Maine.	School based: Middle and High schools in the State of Maine.
Wright & Burton (2008)	Case based, Qualitative and quantitative type of study	High School pupils – 14.8 years	- violence, - teen pregnancy, - sexually transmitted diseases	USA	School based: Inner City high school
M Visser (2005)	A repeated measurement design used to assess impact of the intervention	High school learners	Health Risk Behavior	South Africa	School based
Soper et al. 2010	Randomised experimental trial testing mechanisms by which intervention reduce substance use and risky	Age 15-19 yrs, Grade 9-12	USA	Northeast Florida (America)	School-based

	sexual behaviour				
Werch et al. (2003).	Randomized clinical trial. Baseline and 3 months testing	Adolescent eighth graders (Average age 13.2 years)	<b>Condition 1:</b> fitness/ physical activity; alcohol use; sport; nutrition; healthy sleeping habits.   <b>Condition 2 and 3:</b> fitness/ physical activity; alcohol use; sport; nutrition; healthy sleeping habits.	Northeast Florida (America)	School-based
Visser et al (2012)	Process and outcome evaluation design	Grades 8-12	Sexual behaviour towards HIV/AIDS	Gauteng (South Africa)	School-based
Werch et al (2005)	Randomized control trial. Control group, treatment group. Pre and post test	Intermediate and senior	Alcohol use Drug use Cigarette use	USA	School-based

			Exercise habits		
Huang et al (2011)	Quantitative. Pre-test Post Test design	Intermediate learner (7 <sup>th</sup> grade)	Drug use	Taiwan	School based
Botvin (2006)	Randomized school based drug prevention trial. Pre and post test	Intermediate learners (6 <sup>th</sup> grade)	Drug use	USA	School based
Faggiano et al (2006)	Randomized groups with three different interventions. Pre and Post test	Junior high schools(12-14)	Substance abuse	Austria, Belgium, Germany, Greece, Italy, Spain and Sweden	School based
Eisen , (2003)	Pre-test post-test experimental design	Middle School Learners(6 <sup>th</sup> grade)	Substance use	USA	School based
O'Hearn(2002)	Experimental design. Pre and Post Test	Middle School students (10-12 grades).	Health compromising behaviours	Hispanic Community	School based

### 6.3.2 Intervention Content

*Theoretical Orientation:* Approaches focusing on social and cognitive factors, such as social cognitive theory, social learning theory, social influence theory, social bonding theory and interpersonal cognitive problem solving were most prevalent. Also quite prevalent was the use of behavioural approaches such as problem behaviour theory, harm reduction theory, cognitive behavioural theory and behavioural self-control theory.

*Type of Activities:* Common activities were information sessions, educational lessons, discussions and debates, consultations, focus groups, role plays, homework exercises and take home pamphlets/flyers.

*Facilitation Styles:* The majority of studies (8) were only facilitated by classroom teachers who received either training or training manuals. Two studies were facilitated by the health education teachers at the schools. One study was facilitated by teachers as well as mothers and social workers. One study made no mention of facilitation and only three studies were facilitated by trained professionals.

*Scope of the intervention:* During this review, seven distinct types of intervention programs were identified. These are, health risk intervention only and then health risk intervention including the following; Life skills education, physical activity/sport, parent education/involvement, life skills and physical activity/sport, life skills and parent education/involvement, and physical activity/sport and parent education/involvement. The results of each of these groups are detailed below in Table 6.3.

**Table 6.3 Intervention content**

Authors	Programme/ Intervention content			
	Theoretical orientation	Scope of interventions	Nature of activities	Facilitation Styles
Reddy et al 2002	Not specified	Prevention of tobacco and alcohol use.	Activities Debates Discussions Survey Home activities	Trained staff from AIIMS administered surveys  Teachers received training manuals for activities, debates and discussions
Spoth et al (2008)	Social learning theory & Problem behavior theory	Prevention of alcohol, tobacco and marijuana use	Life-skills training as well as a program focused on strengthening families.	Forty-five program facilitators received 3 days of on-site training; all were White, 38 were female (84%), and all were between the ages of 30 and 65.
Smith et al (2004)	Constructive and Interdisciplinary.	PRIMARY OBJECTIVE: To test the effectiveness	The standard LST curriculum, delivered in a planned	Teachers were recruited in both the LST and I-LST conditions to



		<p>of an infused approach to teaching the Life Skills Training components. (Are the health risk behaviours identified, reduced after implementation of infused approach of LST programme.) Primarily focusing on differences found in each gender.</p>	<p>sequence, consists of 15 lessons in the first year (seventh grade), 10 in the second year (eighth grade), and 5 (or 7 depending on time) in the third year (ninth grade). The core LST components consist of self-image and self-improvement; decision making; smoking, marijuana, and alcohol myths and realities; smoking and biofeedback; advertising awareness; coping with anxiety; communication skills; social skills; and assertiveness. The I-LST curriculum has no set number of lessons. Instead, the</p>	<p>participate as providers of the respective approaches. In the LST schools, teachers were trained in the LST approach by an approved LST trainer. In the I-LST schools teachers were trained by members of the ADAPT staff in LST principles. The comparison schools did minimal drug prevention education during the period of this study. (See page 56 if more info required)</p>
--	--	--	---	---

			matrix as described above is completed to assure that all LST core components are taught to each student in at least one subject area.	
O'Brien et al (2010)	*Not specified	<p>This study evaluates the impact of the Healthy Maine Partnerships SHC (HMPSHC) intervention on school policies and student risk behaviors after its first 5 years.</p> <p>Two research questions were assessed:</p> <p>1." Were more physical activity, nutrition, and tobacco- related school</p>	<p>"Data sources include the Maine School Health Profiles Survey and the Maine Youth Drug and Alcohol Use Survey/Youth Tobacco Survey. Cross-sectional analyses were performed on 2006 data to assess physical activity, nutrition, and tobacco-related policy associations with the HMPSHC intervention. Finally, policy and student behaviour</p>	<p>Not really specified – surveys filled out by principles and lead health educators of the various schools.</p> <p>Thus, I do not believe much facilitation is necessary as surveys merely question policies implemented by the schools.</p>

		<p>policies and programs associated with intervention schools than with nonintervention schools in 2006?” (p. 178)</p> <p>2. “ Were school policies and programs associated with lower student risk behavior in intervention schools” (p. 178)</p>	<p>analyses were conducted to assess associations.” (p. 176)</p> <p>There are three instruments that were administered:</p> <p>1. The Maine School Health Profiles Survey (MEPro- files). Divided in two – “lead health educator survey” and “principle survey”. The principal and lead health educator, respectively, fill out the surveys separately.</p> <p>2. The Maine School Health Profiles Survey and the Maine Youth Drug and Alcohol Survey - MYDAUS. (a biennial survey administered in even-numbered years by the</p>	
--	--	--	---	--

			<p>Maine Office of Substance Abuse to public school students in grades 6 through 12.) Use of this survey provides the opportunity to link student behavior to schools and school policy profile data.</p> <p>3. A data set containing information on free and reduced lunch participation by school which was obtained from the Maine Department of Education.</p>	
Wright & Burton (2008)	Instructional Learning Theory	Teaching personal and social responsibility to reduce HRB and low expectations	<p>Nature of the intervention program is a combination of both educational and physical. The educational focus deals with life skills training,</p>	<p>Directive facilitation process.. Training and instructional, as well as opportunities for peer leader led events.</p>


			responsibility, group work, goal setting, dealing with stress. The physical –Tai Chai Tiger Program part builds self-confidence and self-respect.20 lessons, 2 per week for 10 weeks	
M Visser (2005)	Preventing the spread of HIV/AIDS	Address some of the serious psychosocial problems that confronts learners i.e. HIV/AIDS, substance and child abuse by way of life skills that can contribute to the development of a healthy lifestyle	Trained and empowered two teachers in every secondary school in the country to present life skills and HIV/AIDS education in their schools	Trained teachers in secondary schools
Soper et	Problem behaviour	Reduction in substance	-For mothers - mother-child	- Mother with self-help initiative,


al. 2010	theory	use & risky sexual behaviors, Parental monitoring, Adaptive Coping, Negative Errors	relationship quality, effective discipline; inter parental conflict and father child contact - For children - active coping, avoidant coping, coping efficacy, negative errors and quality of mother –child relationship. -LC group, mothers and children received books and syllabi related to coping with divorce.	Social workers, educators
Werch et al. (2003).	Social Cognitive Theory Health Belief Model. Behavioural Self-control Theory. Theory of Planned Behaviour.	Reduction of alcohol use risk factors. Increase exercise frequency; sport; nutrition; healthy sleeping habits.	Sport consultation (sport) Prevention messages. Seven screening questions. Student contract. Sport Consultation Plus Alcohol Preventive Consultation (Sport Plus):	Structured consultations run by trained project staff; such as trained nurses.  Self-reported alcohol use.

	<p>Social Bonding Theory.</p> <p>The Multi-Component Motivational Stages (McMOS) prevention model.</p>		<p>Prevention messages.</p> <p>Seven screening questions.</p> <p>Student contract.</p> <p>The alcohol consultation.</p> <p>Sport Consultation Plus</p> <p>Alcohol Consultation Plus</p> <p>Parent Print Materials (Sport Plus Parent):</p> <p>Prevention messages.</p> <p>Seven screening questions.</p> <p>Student contract.</p> <p>The alcohol consultation.</p> <p>Parental SPORT cards mailed one per week.</p>	
Visser et al	- Cognitive behavioural theory	-primary prevention of risk behaviour	-focus groups & role plays	-2 Teachers and a Principal used per school

(2012)	-Ecological theory	-change in lifestyle of individuals who already engage in risk behaviour		
Werch et al (2005)	<ul style="list-style-type: none"> <li>- Multi-Component Motivational Stages Model</li> <li>- Social Cognitive Theory</li> <li>- Health Belief Model</li> <li>- Theory of Planned Behaviour</li> <li>- Behavioural Self-Control Theory</li> <li>- Social Bonding Theory</li> </ul>	<ul style="list-style-type: none"> <li>-Health risk behaviours</li> <li>- fitness education</li> <li>-exercise skills</li> </ul>	<p>In-person health behaviour screen</p> <p>one-on-one brief consultation</p> <p>Take-home fitness prescription targeting health promoting behaviours</p> <p>Flyer reinforcing key components mailed to the home</p>	<p>Who is facilitating – fitness specialists, nurses, certified health education specialists who all received 2-day training. Style – semi structured. Number of facilitators – not specified.</p>
Huang	Theory of planned	Drug use prevention	Sessions, peer leader	Students peers, health education



et al (2011)	behaviour		discussion, home work exercise, role play, experience sharing	teachers, professor of health education,
Botvin (2006)	Harm reduction	Life skills training	Sessions, homework, group discussions, modelling, demonstration, behaviour rehearsal	Classroom teacher
Faggian o et al (2006)	Social influence approach	Social skills training, personal skills and knowledge and normative education.	Sessions , side activities involving peers and parents 	Class teachers
Eisen , 2003	Social influence and social cognitive approaches	Cognitive behavioural skills, personal responsibility, effective communication, better decision making, social influence resistance, asserting rights an d	Sessions	Classroom teachers

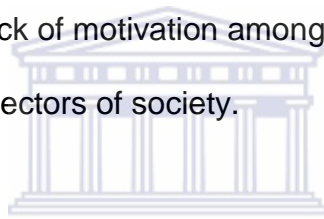
		increasing drug use knowledge and consequences		
O'Hearn 2002	Interpersonal cognitive problem solving	At risk urban adolescents: setting positive reachable goals, anticipating and responding to barriers, to goal attainment using social support and building one's strengths.	Workshops, manuals, booklets, written exercises, using social support, psychoeducation  	Teachers

### 6.3.3 Empirical Evidence/Results

*Health risk intervention only:* The study done by O'Brien et al. (2010), targeted tobacco use, lack of physical activity and bad nutrition. Results of the study indicated at post-test a decrease in daily soft drink consumption, time spent watching television, decrease in tobacco use and a general increase in physical activity when compared to pre-test scores. However, post-test results indicated that the risk for the initiation of tobacco use did not differ significantly from the pre-test scores.

*Health risk intervention including life skills education:* Two thirds (10/15) of the studies included in this review incorporated a life skills element as part of the intervention. The study of Smith, Swisher and Vicary et al. (2004), included a life skills training group (LST) and an infused life skills training group (I-LST) which incorporated preventative training into regular academic lessons (eg. using a reading comprehension lesson to teach that chewing tobacco has negative health risks). Results indicated a significant reduction in tobacco use, marijuana use, and binge drinking for females in the LST and I-LST groups as well as a reduction in alcohol use and inhalant use for females in the LST group during the first year. During the second year all effects were lost for LST females and only reduced tobacco use remained significant for I-LST females. No significant impact was found for males at any time in any category. Botvin, Griffin and Nicols (2006), and Huang et al. (2011), found that the addition of life skills education resulted in reduced drug use when compared to controls. Huang et al. (2011) found that the intervention also increased the prevention of drug and tobacco use initiation. Botvin, Griffin and Nicols (2006) also found that the life skills training significantly reduced the risk of verbal aggression, physical aggression, and physical fighting. Eisen et al. (2003), found a

significant reduction in tobacco use and marijuana use at post-test for baseline nonusers but no significant effects were found on the alcohol use indicators. For baseline drug users no significant difference was found between intervention and control groups for amount, frequency of use, or prevalence rates for any of the drug use indicators but intervention school students did show less progression to use of more advanced substances than control schools. Visser, Schoeman and Perold (2004), aimed to increase HIV/AIDS awareness and reduce risky sexual behaviour. At post-test there was a significant difference in learners' knowledge about HIV/AIDS but the intervention was largely unsuccessful as there was no significant difference in risky sexual behaviour. This was attributed to hindrances such as more pressing needs within the population, lack of motivation among teachers, limited resources, and instability across various sectors of society.



*Health risk intervention including parent education/involvement:* Visser et al. (2012) aimed to improve their unsuccessful 2004 study by adding a parent education element. While they found significant differences in learners' knowledge about HIV/AIDS, knowledge of protective behaviour and attitudes towards people with HIV/AIDS, results from post-tests showed an increase in high risk behaviours. More learners were sexually experienced and more learners perceived their friends to be sexually active. Additionally there were no significant differences in protective behaviours despite the increased knowledge in this area. Reddy et al. (2002) found that the addition of family involvement did not make any significant difference as there were no significant differences between the school-only and school and family-based groups. Both of these groups showed decreased prevalence in tobacco use as well as a reduction in alcohol consumption. Adolescents in the control group of

this study increased alcohol and tobacco usage during the year of the study which highlights the necessity of school-based intervention/prevention programs.

*Health risk interventions including life skills and parent education/involvement:* the results of the study done by Spoth et al. (2008) found a significant decrease in tobacco and marijuana use but no significant difference in alcohol use. These results echo those found by Eisen et al. (2003). Soper et al. (2010) however, found that the parental education element of the study increased parental monitoring which decreased substance use, including alcohol, marijuana and poly drug use. They also found that adaptive coping skills reduced risky sexual behaviour for youth with a high risk for developing adjustment problems. However the intervention decreased adaptive coping and increased negative errors for substance use and risky sexual behaviour for adolescents with low levels of risk for adjustment problems. Faggiano et al. (2007), found a significant decrease in alcohol, tobacco, and marijuana use in all intervention groups compared to controls. Tobacco usage was the lowest in the parent involved intervention group compared to the other intervention groups and the controls. These findings suggest that passive parental education is not sufficient in producing significant reductions in health risk behaviours. Active parental participation through at-home monitoring of behaviour or involvement in the intervention itself produced the most significant results.

*Health risk intervention with physical activity/sports:* Werch et al. (2003) included a sport-only intervention group in their study. They found that this group alone showed a decrease in the perception of the prevalence of peer alcohol use. A significant decrease was also found in alcohol use initiation as well as quantity and length of

alcohol use. This group also showed the greatest improvement at post-test on social norms.

*Health risk intervention with physical activity/sport and parent education/involvement:*

Werch et al. (2005) found a significant decrease in alcohol use initiation and consumption and drug use behaviours and an increase in exercise habits. The Sport-Plus-Parent group in Werch et al's 2003 study resulted in a significant reduction in alcohol initiation and the quantity of alcohol consumption and reduced heavy usage over time. This group also showed the greatest increase in the number of days exercising in the last week. The only differences between the sport-only group and the sport-plus-parent group was that the sport-plus-parent group reduced heavy alcohol usage over time and spent a greater number of days exercising. This suggests that the addition of parental involvement serves to reinforce the positive results of the sports intervention, as well as assist in the long-term maintenance of these results, as can be seen in the reduction of heavy alcohol usage over time.

*Health risk intervention with physical activity/sport and life skills:* Wright and Burton

(2008) do not report directly on reductions in any health risk behaviours however they do report finding increases in responsibility and self-confidence which are often important elements in resisting peer pressure regarding the initiation of health risk behaviours. They also found a decrease in stress caused by community factors which is important as stress is a relatively common precipitating factor for many health risk behaviours including substance abuse and risky sexual behaviour.

**Table 6.4 Empirical Evidence**

Authors	Analysis & Results		
	Data analysis	Empirical evidence/ results	Authors Conclusions
Reddy et al (2002)	All analyses done using mixed effects regression models. Scores were examined at pretest for any significant differences between conditions. If F-tests showed that there were significant differences when the 3 conditions were compared, further t-tests examined which conditions were significantly different from each other. The differences between conditions at pretest and posttest were also examined for interactions with individual student's gender and type of	Project HRIDAY demonstrated that a systematic and coordinated health promotion program with young adolescents can delay the onset of smoking and alcohol use in New Deli. e findings were generalized appropriately. The population (young adolescents in New Deli) is represented by the sample (Grade 7 students from 30 schools).	The intervention appears to have made a significant impact on the prevalence of tobacco and alcohol use in the young adolescent age-group.  Students in the control schools increased their tobacco and alcohol use over the year of study.

	<p>school. All analyses's were done using SAS GLIMMIX MACRO.</p> <p>This program allows specification of a non-Gaussian, binomial distribution.</p>		
Spoth et al (2008)	<p>Outcome analyses were "intent-to-treat," using data from individuals in the entire sample, whether or not particular individuals participated in the intervention(s). Individual scores were examined using a multilevel analysis of covariance with school included as a</p>	<p>Findings from the prevention trial follow-up assessment 5½ years after baseline indicated positive outcomes for 12th graders on all substance initiation measures, for one or both intervention conditions. In addition, positive outcomes on more serious or problematic use were shown for higher-risk subsamples.</p> <p>Finally, the 12th grade relative</p>	<p>There was not a significant difference in the use of alcohol after the intervention. There was, however, a significant difference in the use of tobacco and marijuana.</p>



		<p>reduction rates for the initiation measures convey their practical significance, particularly for drunkenness, cigarette and marijuana initiation.</p> <p>Findings were not generalized.</p>	
--	--	---	--



<p>Smith et al (2004)</p>	<p>“we initially analyzed our data using multilevel methods and found that the estimate of the intraclass correlation was negligible” (p. 60)</p> <p>“The analysis for this study utilized a fixed effects analysis of covariance regression model with maximum likelihood</p>	<p>This article only reports on the first two years of the intervention and focuses on its effectiveness for both genders. Results are thus analysed separately per gender.</p> <p>1st year:</p> <ul style="list-style-type: none"> <li>- No significant impact for males on all levels.</li> <li>- Significant difference observed for females – LST programme significantly reduced alcohol use, marijuana use, inhalant use and binge-drinking.</li> </ul> <p>Separate analyses indicated that the LST treatment by gender interaction for smoking (<math>B = .546, / = 1.99</math>), binge drinking, (<math>B = .357, t = 2.65</math>), and marijuana use (<math>15 = .390, t = 2.61</math>) was statistically significant i.e. effect for females was significantly greater than for males.</p>	<p>Both the LST and the I-LST approaches had a moderate positive effect on the substance use patterns of participating females by the end of the first year of programming, but these effects dissipated by the end of the eighth grade – LST method: alcohol consumption, binge drinking, and marijuana use are all lower than comparison females i.e. I-LST and control.</p> <p>There was no impact on males in either of the intervention groups at either time point.</p> <p>These program effects suggest that either approach is moderately successful with white, rural females during the seventh grade – this gender finding is not unique.</p>
---------------------------	--	--	--

	<p>estimation procedures.” (p. 60)</p> <p>“Due to the non-normal distribution of the substance use variables, robust standard errors were used.” (p. 60)</p> <p>“All significance tests were two-tailed.” (p. 60)</p>	<p>The I-LST program also resulted in significantly less smoking, binge drinking and marijuana use among females. The I-LST treatment by gender interaction was significant for smoking (<math>B = .250, t = 2.43</math>).</p> <p>2nd year:</p> <ul style="list-style-type: none"> <li>- Males remain unaffected.</li> <li>- All effects were lost for LST females and only one effect remained for the I-LST females. I-LST females maintained their significantly lower use of cigarettes as compared to the control females.</li> </ul>	<p>Supported by other studies.</p> <p>Limitations:</p> <ol style="list-style-type: none"> <li>1. While most studies rely on self-report data, the validity of these reports can always be questioned.</li> <li>2. The requirement of active parental consent increases the probability that the highest risk students did not participate in the survey.</li> <li>3. the inability of current study to account for school effects in the analysis.</li> </ol> <p>Recommendations:</p> <p>“Regardless of the approach, our experience,</p>
--	---	--	---

			<p>and that of Botvin (1995; 1990), is that the provision of these programs requires follow-up training for teachers.” (p. 66)</p> <p>“It should also be recognized that the I-LST strategy probably requires more up-front investment, due to the need to coordinate the efforts of multiple teachers.” (p. 66)</p>
O’Brien et al (2010)	<p>- All analyses were done using Stata 10.</p> <p>- For analyses looking at the associations between school policies and</p>	<p>-Intervention schools were more likely to be associated with physical activity intramural offerings, improved nutritional offerings, and tobacco cessation programs.</p> <p>-In intervention schools, supportive school policies were associated with decreased soda consumption, decreased inactivity, and decreased tobacco use.</p> <p>-Required school health education curricula were</p>	<p>In schools with school health coordinators there exists a stronger association with improved school programs. Improved policies and programs were associated with decreases in risk behavior among students in intervention schools. The Healthy Maine Partnerships SHC intervention may be a viable Maine’s</p>

	<p>student behaviors, the MYDAUS and MEProfiles surveys were merged together.</p> <p>- Separate analyses for intervention and non-intervention schools were done. The logistic models over a multinomial regression modeling strategy was selected for analysis of data.</p>	<p>more predictive of decreased risk behavior in intervention schools than in nonintervention schools.</p> <p>-The odds of intervention schools offering intramural or physical activity clubs were over 3 times greater than nonintervention schools.</p> <p>-23% of intervention schools had unhealthy snack foods or beverages available before classes begin in the morning versus 31.1% of nonintervention schools.</p> <p>-A larger percentage of intervention schools (49%) had adopted policies requiring healthy options versus nonintervention schools (28%).</p> <p>-As for tobacco, the odds of intervention schools offering tobacco cessation programs to faculty and</p>	<p>Coordinated School Health Program model to replicate and evaluate in other settings.</p>
--	--	---	---


	<p>- Standard errors of the regression coefficients were calculated using the empirical variance estimator, 40 allowing responses from students within a given school to be correlated. (p. 179)</p>	<p>staff were nearly twice those of nonintervention schools.</p> <p>-No differences in topics covered in required health education courses were found between intervention and nonintervention schools in 2006.</p> <p><u>MYDAUS + MEProfiles results</u></p> <p>Significant associations between student-level behaviors and school-level policies were seen in survey items related to physical activity, nutrition, and tobacco use. All these associations were found to be significantly different by intervention status.</p> <p>The odds of students drinking 2 or more sodas per week were 17% (<math>p = .023</math>) smaller if schools had a policy that did not allow for unhealthy.</p>	
--	--	--	--

		<p>Items to be sold during school lunch periods. In intervention schools with required health education courses that included required physical activity and fitness topics, the odds of students watching 2 or more hours of TV per day were 22% less (<math>p &lt; .001</math>) than those of students in schools without such a policy.</p> <p>No significant difference was found between intervention and nonintervention schools in the risk of students trying cigarettes when schools taught tobacco-use prevention in required health education courses.</p>	
Wright & Burton (2008)	Deductive (theory-driven) when collecting data related to program	The goal of the intervention was to increase responsibility and self-confidence and decrease stress caused by community factors. On these two accounts and others alike the intervention was	-The intervention was relevant for the population of the sample – inner city high school students.


	goals. Inductive (data-driven) for data identifying relevant behaviors, perceptions & events.	effective and successful	<p>-Intervention programs that are both physical and life skills orientated serve great benefit for teenagers where certain HRB are the norm.</p> <p>However the lack of these unique intervention programs is based on lack of funding, space, administrative support and staff.</p>
M Visser (2005)	T Test	There was a significant difference in some aspects; in the learners' knowledge about HIV/AIDS	<p>On a behavioural level it was found that there were significant changes in the learners' knowledge of HIV/AIDS, knowledge of protective behaviour and their attitudes towards people with HIV over the period of 1 year.</p>



Werch et al.  (2003).	<p>Pre-test</p> <p>Equivalence:</p> <p><b>Significant differences</b> were reported is reported between mean alcohol problems.</p> <p><b>Significant time effects</b> on three alcohol measures were reported accompanied by F ratios.</p>	<p>10-minute sport consultation with and without an additional alcohol consult and parent print materials, resulted in reductions in alcohol consumption and problems, and increases in exercise frequency over time.</p> <p>Decreases were found across all intervention groups on alcohol use initiation and alcohol problems, while increases were found in the frequency of both vigorous and moderate physical activity.</p> <p>Adolescents exposed to the Sport consultation alone were the only group to show a reduction over time in their perception of the prevalence of peer alcohol use.</p>	<p>This study's findings suggest that a brief sport-based screen and consultation tailored to adolescents' health habits, with and without parent materials, may potentially reduce alcohol use, while increasing exercise frequency.</p>


	<p><b>Significant interaction effects</b></p> <p>were reported for protective factors and two risk factors regarding alcohol use, alcohol consumption measures; moderate exercise; self-control and peer prevalence.</p> <p>Lack of <b>significant interaction effects</b></p> <p>was reported regarding physical</p>	<p>Sport consultation alone showed the greatest improvement at post-test on social norms.</p> <p>In addition, those receiving the parent postcards were the only group to show an increase in parent-child alcohol communication over time. to</p> 	
--	---	---	--

	activity.		
Visser et al (2012)	Qualitative- T-test  Quantitative-  Thematic content analysis	<p>In the group as a whole there was an increase in the reported high-risk behaviour of the learners over the period of a year.</p> <p>More learners were sexually experienced (<math>p &lt; 0.01</math>) and perceived their friends to be sexually active (<math>p &lt; 0.01</math>) in the post-test. There were no significant changes in their protective behaviours.</p> <p>Focus groups results also revealed admission by learners that the teachers were helping them to know more about HIV/AIDS.</p>	<p>Significant changes in the learners' knowledge of HIV/AIDS, knowledge of protective behaviour and their attitudes towards people with HIV/AIDS over the period of 1 year.</p> <p>It cannot be concluded that the changes can be attributed to the intervention alone.</p> <p>The intervention did not have an impact on the normal sexual maturation process.</p>
Werch et al (2005)	Chi-square tests  Independent t-tests	<p>Tests at 3-months post-intervention were significant (<math>p &lt; 0.05</math>) for:</p> <p>Alcohol consumption and initiation behaviours</p>	<p>These findings indicate that a brief 12-min one-on-one consultation integrating health risk behaviour avoidance messages within those promoting positive health behaviours</p>

	MANCOVAs	<p>Alcohol use risk and protective factors</p> <p>Drug use behaviours</p> <p>Exercise habits</p> <p>Tests were not significant (<math>p &gt; 0.05</math>) for:</p> <p>Drug use initiation</p> 	<p>holds promise for reducing health risk behaviours while increasing exercise habits and other positive health behaviours among high-school adolescents in the short term.</p> <p>Limitations-positive results were not maintained at the 12-month follow-up.</p> <p>Reasons for this may be that the follow-up fell after summer break, suggesting that high school learners may experience increased risk for some health risk behaviours during summer break.</p> <p>The findings were generalized to the population represented by the sample however, the authors did add that only a</p>
--	----------	--	---

			single suburban school was used for the study and results should therefore be tempered and further studies in other settings should be conducted.
Huang et al (2011)	Spss, Anova, x statistics, covariance, two tailed test	There is a significant difference, drug use has been reduced after intervention	Intervention was effective in preventing tobacco and drug use. Generalizations to a wider population were not specified.
Botvin (2006)	Generalized estimating equations (GEE)  T-test- two tailed  Generalized estimating equations (GEE)	There is a significance difference of drug use reduction. School based prevention approach previously found to prevent tobacco, alcohol, and illicit drug use can also prevent violence and delinquency	The intervention was effective. Student who receive life skills training are less likely to engage in youth violence and delinquency. The sample size was big enough to allow generalizations.

Faggiano et al (2006)	Descriptive analysis, chi- squared- Benferronni	Alcohol and using cannabis and the results were as follows;34.9% had smoked, 24.7 had been drug and 8.9% had used cannabis. The baseline showed high prevalence and wide geographical variations of substance use	There was a significant difference after intervention concerning alcohol use and cannabis use.
Eisen , 2003	Mixed model regression post tests	For pretest nonusers recent cigarette smoking was lower for 'skills for adolescence, SFA' than controls $p<.05$ ,as was lifetime marijuana use $p<.06$ .	For baseline users their skills for adolescence delays substance use (smoking and drinking). The limitations encountered hindered the authors from making generalizations to the whole population
O'Hearn(2002)	MANOVA	Significant gain in knowledge of goal setting skills and improvement in problem solving skills	Middle school students may obtain more generic problem solving skills that have been deemed important in the prevention behavioural and psychological problems. The authors concluded that concluded that the

			results can be generalized with success to other areas
Soper et .al. 2010	Descriptive statistics and correlations, Box's M analysis for the 2 intervention groups, Outlier analysis, Full information maximum likelihood (FIML)	<p>Significant negative relationship between Parental monitoring and substance use.</p> <p>Results indicated that parental monitoring mediated the effects on substance use and adaptive coping mediated effects on risky sexual behaviour.</p> 	<p>According to Sober et al. (2010), the following were reported:</p> <p>Several limitations to this study-research should assess other aspects of risky sexual behaviour e.g. inconsistent condom use and age at first intercourse. Dependent variables were based on self-report and future research should include parents and peers perspectives on health risk behaviors. Mediators and outcomes were assessed contemporaneously which can produce bias estimates of effects. The sample may be biased in ways that affect generalizability.</p>

### 6.3.4 Theoretical Orientation

#### *Social and social-cognitive based theories*

These have been linked with significant increases in positive personal qualities such as responsibility, self-confidence, stronger internal mechanisms to facilitate coping with stress caused by community factors (Wright & Burton, 2008) as well as significant increases in goal setting and problem-solving skills (Eisen et al., 2003) and general improvements in interpersonal social skills (Faggiano et al., 2006). Increases in these positive personal qualities and skills subsequently correlated with reductions in health risk behaviours such as alcohol abuse (Eisen et al., 2003; Faggiano et al., 2006), tobacco use (Eisen et al., 2003; Sproth et al., 2008) and marijuana use (Faggiano et al., 2006; Sproth et al., 2008).

#### *Behavioural Based Theories*

These approaches have been linked with decreases in high level health risk behaviours such as risky sexual behaviour, drug use, and youth violence and delinquency (Botvin, Griffin, & Nicols, 2006).

#### *Cognitive-Behavioural Theories*

Visser et al. (2012) was the only study to utilize this approach. Their intervention was successful at increasing knowledge about HIV/AIDS but unsuccessful at changing the risky behaviour associated with HIV/AIDS. As Visser et al (2012) was the only study included in this review that utilized a Cognitive-Behavioural theory, no hypotheses or generalizations can be made as to the effectiveness of this approach at this time.



### *Multi-Theory Approaches*

Werch et al. (2003) and Werch et al. (2005) utilized a combination of behavioural, social, and social-cognitive theories. These included specifically Social-Cognitive theory, Social Learning theory, Theory of Planned Behaviour, and Behavioural Self-Control theory. These studies were associated with reductions in alcohol use initiation, alcohol consumption and drug use (Werch et al., 2003; Werch et al., 2005). They were also associated with increases in healthy behaviours such as physical activity and exercise habits (Werch et al., 2003, Werch et al., 2005) and improvements in positive personal qualities such as more realistic perceptions of the prevalence of peer health risk behaviours and improvements in social norms (Werch et al., 2003).



## **6.4 DISCUSSION**

Interventions incorporating an element of passive parent education (pamphlets/flyers mailed to the home) were no more effective than those without this element (Werch et al., 2003; Werch et al., 2005; Reddy et al., 2002; Visser et al., 2012). However, interventions promoting active parental involvement such as at-home monitoring or assisted facilitation seem to have produced consistently positive results (Eisen et al., 2003; Soper et al., 2010; Spoth et al., 2008). Especially noticeable amongst this group was the potential for long-term maintenance of the intervention effects.

The incorporation of life skills in the interventions produced mixed results with the majority of studies reporting significant reductions in the use of tobacco and drugs (Botvin, Griffin, & Nicols, 2006; Eisent et al., 2003; Huang et al., 2011). Reduction in

alcohol usage was successful with non-drug users but not with drug users (Eisent et al., 2002). It also resulted in reductions in youth violence (Eisen et al., 2003). One study examining gender specific reactions to the life skills intervention found that females were positively affected but unable to maintain the positive results and males being completely unaffected (Smith, Swisher, & Vicary, 2004). The life skills intervention was not successful at reducing risky behaviour associated with HIV/AIDS and even the involvement of the family was not enough to result in significant positive results for that topic. These findings suggest that life skills can play a vital role in the reduction of health risk behaviours by teaching and promoting the everyday skills necessary to deal with some of the precipitating factors of health risk behaviours such as peer-pressure, community issues, and stress. However, the findings suggest that life skills alone are perhaps not sufficient in meeting the needs of males, current drug users, and the reduction of risky behaviours associated with HIV/AIDS. The addition of sport/physical activity by Wright and Burton (2008) found much more positive results in males than the life skills only interventions.

Both of the HIV/AIDS studies were facilitated solely by classroom teachers and sometimes the principal and the nature of activities was mostly educational, using lessons, role plays and focus groups. Soper et al (2010) managed to reduce risky sexual behaviour with adaptive coping mechanisms and this is perhaps something for future HIV/AIDS interventions to consider.

The addition of sport or physical activity in interventions seemed to reduce health risk behaviours while significantly increasing positive behaviours and characteristics such as accurate perceptions regarding the prevalence of health risk behaviour among peers, self-confidence, responsibility, and social skills. The addition of positive health promoting behaviours such as exercise and good nutrition have

resulted in significant reductions in health risk behaviours such as alcohol use, tobacco use, and an unhealthy diet (Werch et al., 2003; Werch et al., 2005; Wright & Burton, 2008).

Looking at all the findings related to the theoretical orientations of the studies, interventions utilizing social or social cognitive approaches seem to focus more on the improvement of positive personal qualities and skills on the hypothesis that improvements in these areas will subsequently lead to a decrease in health risk behaviours. Results of the interventions included in this systematic review provide evidence which serves to confirm the accuracy of this hypothesis.

Interventions incorporating behavioural theories seemed to be the most effective at reducing high level health risk behaviours such as risky sexual behaviour, drug use and youth violence. The goal of Visser, Schoeman and Perold's 2004 study and Visser et al.'s 2012 study was to reduce risky behaviour associated with HIV/AIDS and was largely unsuccessful. Based on the findings, perhaps the inclusion of a behaviour-based theory would make this intervention more successful in the future.

The most effective theoretical approach seems to be a multi-theory approach utilizing a combination of behavioural, social, and social cognitive theories. This appears to be associated with more holistic improvements in that it reduces health risk behaviours whilst increasing healthy behaviours and improving positive personal attributes and skills which have the potential to better maintain the reductions in health risk behaviours. Future studies should be done with long term follow ups to assess the potential of these multi-theory approach based interventions to successfully maintain reduced health risk behaviours over the long term.

## 6.5 CONCLUSION AND RECOMMENDATIONS

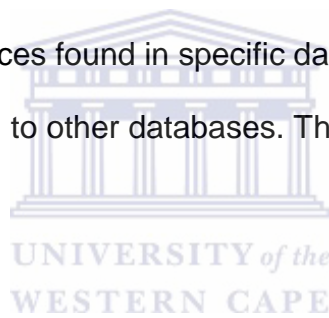
Interventions seem to be most effective when they widen the scope and include other aspects such as life skills, sport, and parental education/involvement. All of these elements displayed positives and negatives on their own, but the studies with the best results were those that included more than one of these additional elements. The addition of sport was particularly powerful at increasing positive, more realistic attitudes and perspectives regarding the self and others and these elements in turn were successful at reducing health risk behaviours. Parental involvement was particularly effective at reinforcing positive effects of the intervention and maintaining long-term results. Life skills education was particularly effective with females and at helping learners in poorer areas cope with community stressors. Interventions which used trained professionals as facilitators were generally more successful. Facilitation by classroom teachers was generally less effective, especially regarding HIV/AIDS intervention. The theoretical underpinning of the intervention does seem to affect the results with regard the nature of the health risk behaviours that are addressed, as well as the extent to which the interventions are successful at reducing these health risk behaviours and whether or not healthy behaviours and positive personal attributes and skills are promoted. Theoretical orientation also seems to have the potential to affect long term maintenance of reduced health risk behaviours. Generally the interventions targeting younger intermediate students were more effective than interventions targeting older intermediate and senior students. In some cases long-term studies showed good results among lower intermediate students which were not maintained as the students became seniors. Some studies also suggest that interventions conducted with non-drug users were more effective than with drug users.

Taking all these findings into consideration, an intervention targeting younger intermediate learners (Grade 7-9) with regular booster programs throughout high school to better maintain results and to address the greater pressures that come with being a senior is recommended. Furthermore it is recommended that facilitators be trained professionals or that a trained professional at least trains the teachers and then supervises the process. Integrating positive health promoting factors such as physical fitness, nutrition, and self-confidence alongside the reduction of health risk behaviours is also an essential component that should be present. An intervention incorporating physical activity/sport and practical life skills would surely contribute tremendously to the effectiveness of youth development programmes. Sport interventions are especially recommended for males and for use in more disadvantaged areas. Including an element of parent education, perhaps in the form of a seminar, and encouraging active parental participation by providing simple homework activities which encourage parent-child communication on the topic is an essential component that must be part of any programme/intervention. It is also important that parents be aware of the nature and aims of the intervention so that they are better able to provide at-home monitoring of their child's behaviour and progress. Realistically this may not always be possible due to the fact that many parents work full-time or night-shifts. Some single parents need to work more than one job and some learners do not even live with their parents or have other family or community commitments to attend to when they get home after school. It is however important that the learners are accountable to some authority figure. It is also recommended that interventions utilize a multi-theory approach for more holistic results and behavioural based approaches to specifically target higher level health risk behaviours. Based on the findings, the researcher would recommend an initial

short-term, multi-theory approach intervention, which would be more cost-effective and therefore could be implemented in more settings, followed by regular booster programs throughout high-schools, as well as regular and long term follow ups to assess and keep track of the levels at which reduced health risk behaviours are maintained. All of these findings and recommendations will form an integral part of the design of the youth development programme that will be formulated in the following chapter 7.

## **6.6 LIMITATIONS OF THE REVIEW STUDY**

This review only included sources found in specific databases and therefore the findings cannot be generalized to other databases. The review is limited to a specific time frame.



## **CHAPTER 7**

### **DEVELOPMENT OF A YOUTH DEVELOPMENT PROGRAMME**

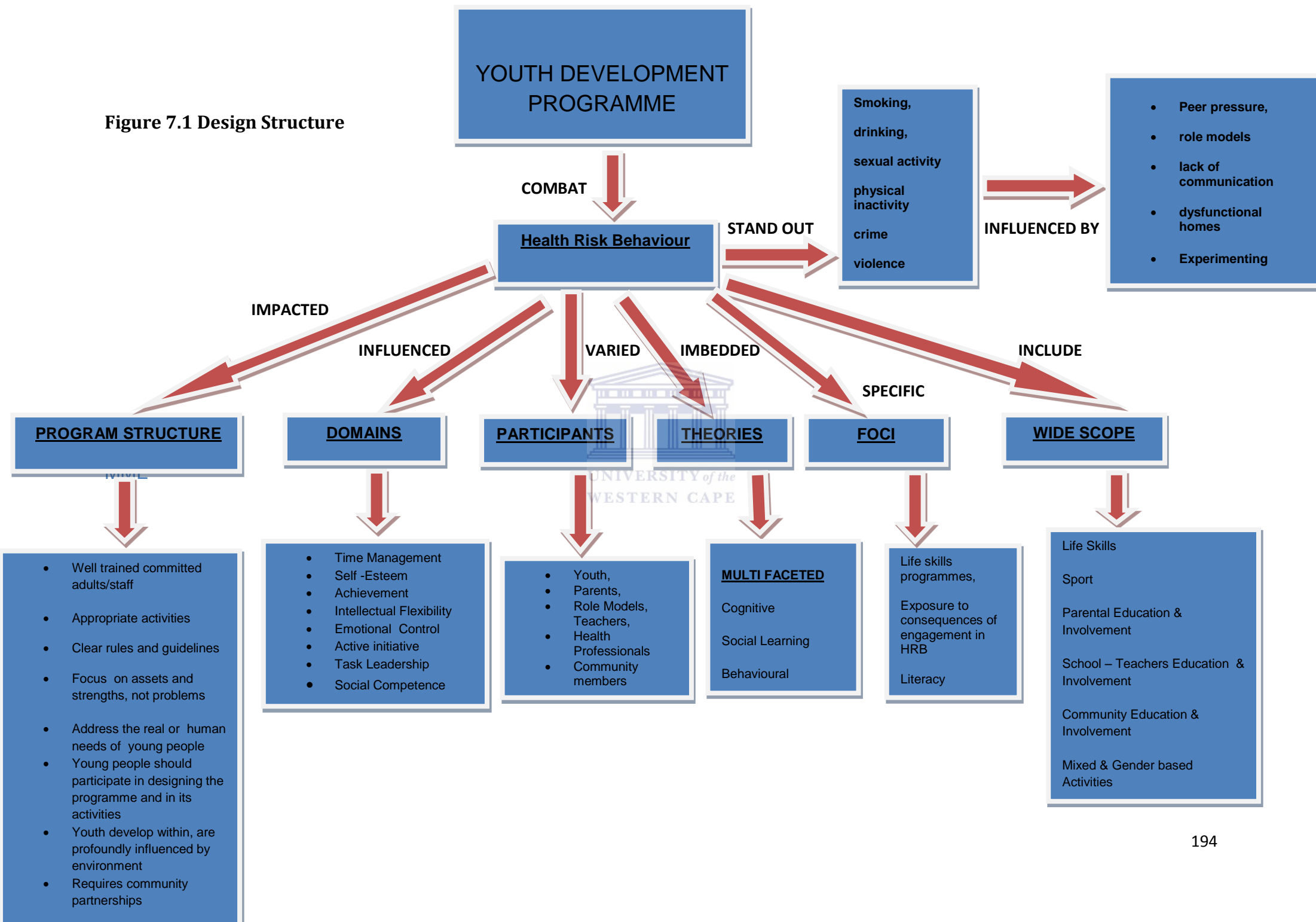
#### **7.1 INTRODUCTION**

This chapter reports on the youth development programme that was designed using the intervention mapping framework. This framework proposed that the design of programme be informed by the following three phases:

- The needs assessment phase (Chapter 4) that established baseline data about the health risk behaviour that the learners engage in, and the extent to which they manage personal situations;
- The identification of performance objectives phase (Chapter 5) where stakeholders cooperated in exploring the reasons for this continued engagement in health risk behaviours and the possible solutions;
- The methods and strategies phase (Chapter 6) in which empirical evidence was collated to determine the content of school-based interventions reported to be effective in preventing health risk behaviours among the youth.

The results from the previous phases (Chapters 4-6) were triangulated, and culminated in an initial concept map (Figure 7.1). The concept map was designed to outline the relations between various concepts and to inform the proposed youth development programme. The concept map describes the important areas to be considered and includes designing a youth development programme to combat health risk behaviour. This could lead to a more informed basis for identifying priority areas for future development of youth intervention programmes, research, and implementation thereof.

Figure 7.1 Design Structure





## 7.2 DEVELOPMENT OF THE YOUTH DEVELOPMENT PROGRAMME

### 7.2.1 Health risk behaviours

The concept map describes the important areas to be considered and included in designing a youth development programme to combat health risk behaviour. This could lead to a more informed basis for identifying priority areas for future development of such programmes, research and implementation thereof. During the needs assessment phase, the major health risk behaviours that were identified as those that the learners engage in, were smoking, drinking, sexual activity, physical inactivity, crime, and violence. This was similar to the findings of other studies in countries such as England (Brooks, Magnusson & Klemnera, 2011). Over the past decade, evidence from a number of local studies reveals that youth in South Africa use alcohol, tobacco and other drugs, engage in unprotected sex, have unhealthy dietary habits, are physically inactive, and are both perpetrators and victims of violence (Frantz 2006, Reddy, James, McCauley, 2003; Swart, Reddy, Pitt, Panday, 2001; Swart, Reddy, Ruiter, de Vries, 2002; Swart, Seedat, Stevens, Ricardo, 2002). The health risk behaviours identified in this current study also correlate well with a national study by Reddy et al. (2010) using the Youth Risk Behaviour Surveillance Survey amongst youth in grades 8-11. It was further identified that peer pressure, role modelling, lack of communication and dysfunctional homes were the major factors that influence the engagement of the learners in health risk behaviours. Researchers have found some evidence that these peer influences are reciprocal (Boxer et al., 2006; Lavalley et al., 2006; Multisite Violence Prevention Project, 2008). Children in groups in which the majority are aggressive will become more so, and children in groups in which the majority are not aggressive will become less so.

The general tendency is for groups to homogenise, but there are several moderators that may either increase or mitigate adverse effects.

A variety of evidence from cross-sectional, longitudinal, and experimental prevention trials has yielded support for several conclusions (NRC and IOM, 2009):

- Parents who form warm relationships with their children and have minimal conflict with them, provide adequate monitoring and supervision, and do not provide models of drug use, can protect youth from developing substance use disorders.
- Lack of strong positive relationships with parents, increases involvement with deviant peers, which increases adolescents' risk for a variety of problems, including precocious transitions, such as early pregnancy, premature independence from parents, and school dropout.
- Parental monitoring and positive parental relationships have been linked with later sexual debut, fewer sexual partners, and increased condom use.

The role of parents and adult supervision is highlighted as a positive influence when thinking about youth development programmes. Hazen et al. (2008) stress that "it is extremely important for adults to open lines of communication and be mindful of the values and behaviours they are demonstrating to youth".

Therefore informing those designing youth development programmes about the importance of identifying the major health risk behaviours that youth engage in as well as understanding the factors that influence that engagement, forms the basis of being able to bring about change in behaviour. One of the critiques by participants during the focus group discussions was that programmes designed to combat HRB do not focus on the current HRB that learners engage in, thus emphasising the need for context-specific programmes.

### **7.2.2 Components of the intervention programme to be considered**

The concept map illustrates that there were six areas identified that could contribute to the design of a successful intervention programme. The areas are programme structure, domains, participants, theories, foci, and wide scope. Each of these areas is examined below; describing what is needed in each area to be able to strengthen the design of the programme.

#### **7.2.2.1 Programme Structure**

The structure of the programme plays an integral role in accomplishing the goals of changing health risk behaviour among the youth. Knowledge gained through the systematic review and Focus Group Discussions (FGD`s) identified clear areas that need to form part of the programme structure in order to ensure effective contribution to behaviour change among youth. To begin with, it is clear that well trained and committed staff should form the backbone of the programme. The challenges that the youth face are enormous, and they cannot be overcome without staff having the skill to navigate the youth through a process of discovery, learning, building confidence, and making the right decisions. Therefore the emphasis is placed on appropriate activities that cater to build the skills of the youth appropriately. According to Wilson and Lipsey (2007) intervention programmes may include behavioural techniques such as rewards, token economies, contingency contracts that are aimed at modifying or reducing inappropriate behaviour; cognitive techniques which are focused on changing thinking or cognitive skills, and social skills training designed to help youth better understand social behaviour and learn appropriate social skills (e.g., communication skills and interpersonal conflict management).

In designing the programmes, characteristics to be considered include clear programme guidelines, context-specific focus, focussing on the positive, and ensuring stakeholder involvement. Programmes that are successful are also built on clear rules and guidelines by which all involved understand what is expected, but more than that, understand that all one's actions have a consequence. Proper guidance is based on rules that appropriately shape the focus on bringing about change in the lives of the youth, through building skills and the ability to understand one's responsibility towards oneself, family and community at large. It is very important for any programme to focus on assets and strengths. Too many programmes focus on problems and therefore create a sense that everything is wrong, thus creating a sense that there is no hope. Each community, family and person has assets and strengths that make it possible to make a difference. Focussing on these positive areas, one can create a paradigm shift towards making a difference within oneself, creating hope and a sense of achievement. Fraser-Thomas, Cote and Daiken (2005:34) emphasise the following: "organised programs need to be consciously designed to assure that youth have positive rather than negative experiences, resulting in positive rather than negative outcomes."

In designing youth development programmes, it is important that programmes take a community youth development approach in creating opportunities for participants to connect to others, develop skills, and use those skills to contribute to their communities, which in turn increases their ability to succeed. Perkins and Noam (2007) emphasise that when we provide youth with real opportunities to contribute to the needs of their communities, the clubs and organisations that they participate in, and the families that they grow up in, then we are contributing to the successful

development of youth now and in the future. Therefore making sure that the programme addresses current or real needs of young people will play an important role in combating health risk behaviour. In meeting this context-specific requirement, understanding which health risk behaviour/s that the youth indulge in, is essential in ensuring that the programme designed will be appropriate.

Finally, in designing intervention programmes, the efforts of interdisciplinary or inter-professional teams are essential. Peneul, Fishman, Cheung and Sabelli (2011) emphasise that in order for interventions to be sustainable, there are four key principles: (a) a focus on persistent problems of practice from multiple stakeholders' perspectives (which this study did through the survey and focus group discussions); (b) commitment to iterative, collaborative design (this was achieved through testing the feasibility of the designed programme through a Delphi study); (c) a concern with developing theory related to both learning and implementation through systematic enquiry (this was accomplished through a systematic review of current literature on youth development programmes); and (d) a concern with developing capacity for sustaining change in systems (this emerged from the Delphi study and will be highlighted in Chapter 8 which limited the implementation of the programme).

In designing this programme, the information from young people was included because it was the intention of the researcher to create an opportunity for the youth to take ownership of their own programme design and set the goals to be achieved. In addition, involvement of key community people to provide input into programmes is essential to ensure the success of the programme. The programme therefore


needs to have the community as a partner in order for change and knowledge to be transferred throughout the environment in which the youth live.

#### **7.2.2.2 Domains**

During phase 1 eight domains were identified as possible factors that affect why the youth partake in health risk behaviour. The eight domains according to the LEQ are time management, self-esteem, achievement, intellectual flexibility, emotional control, active initiative, task leadership and social competence. The design of the programme needs to incorporate skills that will address these domains. This is supported by Perkins and Noam (2007) who contended that key characteristics of youth development programmes should include aspects of positive social norms (social competence), support for efficacy and mattering (self-esteem), opportunities for skills building (achievement, task leadership, time management) and strength-based focus (emotional control). Understanding the influence of the various domains on how the youth make choices, and strengthening their resolve and ability to make choices, will assist the youth to make positive choices. The youth for example feel that they are not achieving when compared to norms or evaluations as set out by society. How one passes in the school system creates the distinct separation of those who do well and pass with an A aggregate and those, for example, who pass with a 50% mark. Learners therefore perceive passing with a higher mark as being a better person. Taking each of the domains and incorporating activities or skills that will positively influence the manner in which the youth perceive themselves, display maturity, and make decisions, will surely assist in making a difference in whether programmes are successful or not. Guerra & Bradshaw (2008) conclude that one

should focus not so much on identifying risk factors for risky behaviour, but on protective factors. Such researchers advocate that school intervention programmes should focus on building on youth's strengths rather than focussing on their weaknesses. These strengths may include positive self-esteem, self-control, decision-making skills, a moral belief system, and prosocial connectedness (e.g. school connectedness or school bonding). The extent to which this approach to intervention research is prioritised above a risk model is evidenced by the 2010 Centre for Disease Control (CDC) call for ways to increase connectedness in teen environments in order to reduce high-risk behaviours

### **7.2.2.3 Participants**



The participants in youth development programmes can no longer be only the learners who need to change their health risk behaviour. The youth, parents, role models, teachers, health professionals and community members all need to form part of a youth development programme. It is not only the learners who need skills to be developed. An important programme characteristic is that parents may be involved in the intervention. Parent involvement has been shown to be a crucial ingredient of intervention studies (Wilson & Lipsey, 2007). Research has indicated that there are positive academic outcomes stemming from parent involvement ranging from benefits in early childhood to adolescence and beyond (Henderson & Mapp, 2002; Patrikakou, Weissberg, et al., 2005). Qualitative studies have shown that schools where youth experience trust among peers, teachers and themselves, have reduced risk taking behaviour (LaRusso & Selman, 2003). All participants in the programme will need skills to make it successful. Skills that might need to be

developed before implementation include: facilitation, mentorship, communication, presentation, and how to build cohesion and trust. The assumption is made that all teachers, health professionals and community members have all the skills to address the challenges that face the youth. Another assumption is that the youth have no knowledge or skills. Research has shown that adolescents are fully aware of the risks involved in certain behaviours, and that exclusively knowledge-based interventions are largely ineffective across various domains (DiClemente, Hansen, & Ponton, 1996). The programme needs to build from the premise that all are participating in the programme in order to build skills. The programme designers need to understand what knowledge and skills already exist, and how they can be incorporated to strengthen the programme. Each participant's role needs to be clearly defined.



#### **7.2.2.4 Theories**

Youth development programmes are successful if they incorporate a multi-faceted approach regarding the use of theories. Peneul et al. (2011) stress the importance of basing interventions on appropriate theories. Although the focus of Peneul et al. (2011) is on design-based research in the educational setting, we can learn from this approach as youth development programmes all have an educational component. Using the design-based implementation research principles allows us as researchers to use theories in designing effective programmes, but also to ensure that it helps us to build within these programmes. No one theory is sufficient as a framework for the programme. Human behaviour directly affects the maintenance of health and the prevention of disease. Therefore the importance of understanding that behaviour

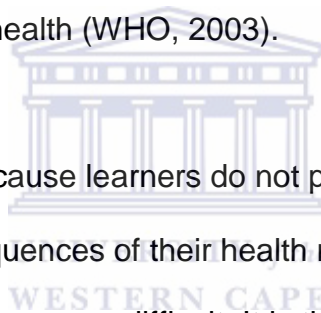


theory should play an integral role in a youth development programme. It is essential but understanding that one programme can possibly integrate aspects of various theories is also important. Growing evidence suggests that effective programmes to change individual health behaviour require a multifaceted approach to helping people adopt, change, and maintain behaviour. Werch et al.. (2003) and Werch et al. (2005) used a combination of behavioural, social, and social-cognitive theories. These included specifically the Social-Cognitive theory, Social Learning theory, Theory of Planned Behaviour, and Behavioural Self-Control theory. These studies were associated with reductions in alcohol use initiation, alcohol consumption, and drug use (Werch et al., 2003; Werch et al., 2005). They were also associated with increases in healthy behaviours such as physical activity and exercise habits (Werch et al., 2003, Werch et al., 2005) and improvements in positive personal qualities such as more realistic perceptions of the prevalence of peer health risk behaviours and improvements in social norms (Werch et al., 2003). Côté, Godin and Gagné (2006) maintain that a 'one size fits all' intervention is not appropriate and will challenge sustainability of the developed programme. The authors also advise that using a dynamic framework like intervention mapping could assist in developing efficient programmes that are based on empirical knowledge and design based on appropriate theoretical models.

#### **7.2.2.5 Foci**

During the focus group discussion, participants clearly defined the following three areas as important foci of a youth development programme: life skills programmes, exposure to the consequences of HRB, and literacy. The participants identified that a lack of life skills plays an important role in the health risk decisions that learners

make. Children need to learn how to make decisions and solve problems. The methods used in the teaching of life skills builds upon what is known about how young people learn from their own experiences and from the people around them, from observing how others behave, and what consequences arise from behaviour. This is described in Social Learning Theory developed by Bandura (1977). In Social Learning Theory, learning is considered to be an active acquisition, processing and structuring of experiences. Life skills are an effective tool for empowering young people to make informed and responsible decisions about their own well-being (Hawkins et al. 1999), and may be directed towards personal actions or actions towards others, as well as towards actions to change the surrounding environment in order to make it conducive to health (WHO, 2003).



It was also pointed out that because learners do not perceive themselves to be at risk and do not see the consequences of their health risk behaviour choices, changing that behaviour becomes very difficult. It is therefore important to be exposed to the consequences of HRB choices. Most theoretical models of health and risk behaviour see the individuals' judgements about risk as a fundamental element in determining behaviour (National Research Council and Institute of Medicine, 2002). The individual's beliefs about the consequences of their actions and perceptions of their vulnerability to these consequences, have been conceptualised as playing a fundamental role in the effectiveness of behavioural intervention programmes. Thus attempts should be made to get those affected to recognise and acknowledge their own vulnerability to negative outcomes. Hodne (1995) and Gittler, Quigley-Rick and Saks (1990) confirm that the ability to judge risks is an essential element of decision-making competence related to engagement in

health risk behaviour. Literacy of learners within school systems is seen as a major concern. Learners do not “know how”, and do not have the vocabulary to communicate appropriately. Reading and comprehension of what is being read is a skill that is a major gap. The WCED Literacy and Numeracy Strategy 2006 – 2016 states that systematic research conducted by GTZ, the National Department of Education, as well as the Western Cape Education Department (WCED) has pointed to the fact that the literacy and numeracy skills of the learners in the Western Cape are far below what is required for them to learn and develop effectively. For example, in 2002 the WCED assessed the reading and numeracy results of a representative sample of the grade 3 learners in all schools. This study found that only 36% of learners were achieving the reading and numeracy outcomes expected of a grade 3 learner, and that the great majority of learners in grade 3 were performing two to three years below expectation. Programmes that effectively improve skills in literacy as an important intervention, is a positive contribution to build the prevention of HRB. Follow this with an improvement in life skills to assist making better informed choices and exposure to the consequences of poor health risk behaviour choices, and positive behaviour change could be effected. A growing body of research supports the clustering of substance abuse and sexual risk taking. For example, among adolescents, tobacco, alcohol and other drugs continue to emerge as risk factors for sexual behavior, use of contraception, and teen pregnancy (Kirby, 2001). In South African samples, Taylor et al. (2003) found that high school students in KwaZulu-Natal who used alcohol or smoked cigarettes were two to three times more likely to be sexually active.

### 7.2.2.6 Wide Scope

Youth development programmes are successful when they have a wide scope.

During the systematic review phase, programmes that have been successful have shown a wide scope as an important asset in their programmes. Life skills become more effective when they are incorporated within a sports programme, where learners are faced with making decisions and using those newly learned skills.

Furthermore, without parental education and involvement, the programme becomes less effective. Parents need to have life skills as well, to assist their children in positively changing their behaviour. Society is challenged by the fact that parents are becoming younger and younger. This leads to a lack of maturity and life experience in order to cope with the challenges that the youth now face. The school, its teachers and the community at large also need to be part of the programme. Change needs to take place throughout the environment and with people that the youth interact with.

What is learned in one system needs to be translated to the next. Activities need to be gender-specific but also need to have mixed gender focuses. The most successful research-based approaches have been derived from psychosocial theories of the development of drug abuse, which incorporate both protective and risk factors associated with the initiation and early stages of drug use (Hawkins, Catalano & Miller, 1992; Petraitis, Flay & Miller, 1995) and programmes that have a multi-component design (Hall, Jamieson, & Romer, 2003). In summary, effective interventions tend to focus on (1) social resistance training (how to say no), (2) normative education (showing adolescents that they overestimate the prevalence of drug use among peers and adults, by providing them with actual rates of use)

(3) Competence enhancement (social connectedness, personal and active coping skills to 'unlearn' the effects of modelling, imitation and reinforcement that have brought about the risk taking behaviour) (4) some combination of the above (Griffin, 2003).

## **7.3 DRAFT YOUTH DEVELOPMENT PROGRAMME**

### **7.3.1 BACKGROUND**

This youth development programme was developed to become a valuable intervention to schools and youth workers who wish to provide youth with a programme that focuses on life skills and decision making to combat health risk behaviours. The youth development programme draws on a body of experience from various stakeholders who aim to address youth and health risk behaviours.

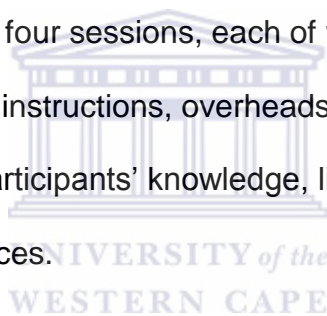
Although this programme was developed as a school-based intervention, the designers feel that in the Western Cape it can be incorporated into the Mass participation; Opportunity and access; Development and growth (MOD) Programme centres in that province. The MOD centres were created as a hub for sport, recreation, arts and culture activities for learners in a community. It is central to the vision of the Department of Cultural Affairs and Sport, namely, to create a socially inclusive, creative and active Western Cape. The MOD centres complement the educational activities of schools by providing children with opportunities to develop their skills and interests after school.

### **7.3.2 GOAL OF THE PROGRAMME**

Against the backdrop of youth development programmes, we aim to prepare young people to meet the challenges of adolescence and adulthood through a structured, progressive series of activities and experiences which help them obtain social, emotional, ethical, physical, and cognitive competencies. The purpose of this programme is to provide youth with an enabling environment to develop knowledge and skills that will allow them to make informed decisions about engagement in health risk behaviours. The programme will be called *Developing youth 4 Paarl*.

### **7.3.3 STRUCTURE OF THE PROGRAMME**

The programme is divided into four sessions, each of which has a theme and includes several activities with instructions, overheads (slides), handouts and facilitation tips that will build participants' knowledge, life skills and leadership ability to make healthier lifestyle choices.



### **7.3.4 OUTCOMES OF THE PROGRAMME**

The goal of the *Developing youth 4 Paarl* is to ensure that participants who enter the programme as vulnerable adolescents, graduate as resilient young adults. In addition, parents will enter as passive observers and exit as engaged parents, ready to participate and face the challenges that parenting brings in a society where more and more of the youth face enormous challenges. When youth leave the *Developing youth 4 Paarl* programme, the intention is that they will be: (1) physically and mentally healthy, able to avoid risk behaviours; (2) good teammates, friends, and family members who cultivate positive relationships with peers and adults; (3) confident, competent, and caring members of their communities; and (4) active

citizens who participate in their community's social and political life.

The population being targeted is 13-18-year-old learners in grades 8-10. The age range was chosen to accommodate learners whose age range may fall outside the expected age range for the specific grades. The youth development guide below sets out the background and goals of the programme, with each goal having a specific objective. The overall programme design is described, and the learning environment is analysed into three sessions pertaining to knowledge development; life-skills development, and leadership development.

#### **7.3.5 OBJECTIVES OF THE PROGRAMME**

The programme will be divided into various goals for each session with specific objectives.

##### ***Goal 1: To provide youth with knowledge to develop a healthy lifestyle***

##### **Objectives:**

- Educate the youth around the dangers associated with engaging in health risk behaviours
- Involve youth in healthy lifestyle activities
- Exposure to the consequences of engagement in health risk behaviour

##### ***Goal 2: To provide youth with the skills to cope with the challenges of adolescence***

##### **Objectives:**

- Provide the youth with decision-making skills
- Provide the youth with skills for effective communication

- Provide the youth with skills for respect for self and others

***Goal 3: To provide youth with the skills for leadership***

**Objectives**

- Improve development of self
- Develop leadership abilities of the youth
- Increase knowledge and awareness of personal responsibilities

***Goal 4: To provide youth with opportunities for relationship building***

**Objectives**

- Improve relationship development of self
- Develop relationship with school and teachers
- Increase relationship in personal life with parents and rest of family
- Develop competency as to where participant fits into his life (himself), family, community, religion

**7.3.6 OVERALL PROGRAMME DESIGN:**

This will be a three-month programme (12 weeks) that is organised into four sessions of three weeks each, and can range between one and three hours. The programme is designed into sessions focussed around the goals, and can thus be run as a flexible approach depending on the needs of the audience.



### 7.3.7 LEARNING ENVIRONMENT:

#### **Session 1: Knowledge development (3 weeks)**

**Objective:** Participants will learn the core concepts of health risk behaviour and the consequences of engagement in it

**Material:** Powerpoint presentation, newsprint, markers, poster

**Activity:** Presentations, discussion groups, field trips, volunteer internships

**Handouts:** Prevalence of health risk behaviour in SA and the Western Cape  
Consequences of engagement in health risk behaviour  
Alternatives to engaging in health risk behaviour

**Participant role:** Engage with topic at hand through interactive tasks aimed at building knowledge among the participants and creating opportunity for participants to impart that knowledge to others through various activities such as role playing, peer-to-peer health promotion talks and presentations

**Facilitator's role:** Create environment for knowledge to be imparted among participants in order to improve the participants' resilience to health risk behaviour engagement

**Theories:** Social-cognitive theory, social learning theory, theory of planned behaviour, and behavioural self-control theory.

#### **Session 2: Skills development (3 weeks)**

**Objective:** Participants will learn the importance of life skills development, develop an understanding of the application of those life skills, and implement those life skills in their daily challenges

- Material:** Videos, powerpoint presentation, readings on life skills
- Activity:** Field trips, health promotion presentations, role play scenarios, interactive discussions and debates
- Handouts:** Role and use of life skills development in delaying, reducing, and preventing engagement in health risk behaviour
- Participant role:** Engage with topic at hand through interactive tasks aimed at application of life skills among the participants and creating opportunities for participants to engage with each other on the use of life skills within their environment and the challenges that they face through various activities such as role playing, peer-to-peer health debates, discussions and role play
- Facilitator's role:** Create environment for knowledge to be imparted among participants pertaining to life skills in order to improve the participants' ability to make healthy lifestyle decisions
- Theories:** Social learning theory and problem behaviour theory

### **Session 3: Leadership development (3 weeks)**

- Objective:** Participants will learn the leadership development within themselves, peer group, family and community context in order to face the daily challenges.
- Material:** Role play scenarios, videos, powerpoint presentation, writing material
- Activity:** Writing and planning role plays to depict leadership and what has been learned in the session. Role play, interactive discussions and debates

**Handouts:** Leadership – becoming the change agent to a better healthier life  
Leadership tips to enhance prevention of engagement in health risk behaviour

**Participant role:** Engage with topic at hand through interactive tasks aimed at addressing the importance of leadership within oneself, among peers, and within the community through various activities such as role playing, peer-to-peer health debates, discussions, and role play

**Facilitator's role:** Create environment for knowledge to be imparted among participants pertaining to leadership in order to improve the participants' ability to make healthy lifestyle decision.

**Theories:** Interpersonal cognitive problem solving theory, social influence and social cognitive approaches, social cognitive theory, health belief model



#### **Session 4: Relationship Development (3 weeks)**

**Objective:** Participants will learn relationship development within themselves, peer group, family and community context in order to build better relations.

**Material:** Presentations on relationships from professionals, parents, peer groups, community members, role play scenarios, videos, powerpoint presentation, writing material

**Activity:** Interactive workshops with parents, family, community and peers on relationships. Writing and planning role plays to depict relationship building. Role play, interactive discussions and debates

**Handouts:** Relationships – building relationships to improve participants' support structures within community, to assist in making healthier life choices. Relationship tips to enhance better support structures and ultimately assist in prevention of engagement in health risk behaviour

**Participant role:** Engage with topic at hand through interactive tasks aimed at addressing the importance of relationship building within oneself, parents, family, among peers and within the community through various activities such as role playing, peer-to-peer health debates, discussions and role play

**Facilitator's role:** Create environment for knowledge to be imparted among participants pertaining to relationship development in order to improve the participants' ability to make healthy lifestyle decisions and have a better support structure

**Theories:** Behavioural self-control theory, social bonding theory

**Table 7.1 Example of implementation of programme**

<p><b><u>Session 1: Weeks 1-3</u> Knowledge Development</b></p> <p><b>Evaluation of participant ( Grade 8-10)</b></p> <p>Assessing Health Risk Behaviour</p> <p>Engagement</p> <p>Goals and dream of participant</p> <p><b>Tasks</b></p> <p>Formal – Education Health Risk Behaviour</p> <p>Facilitation, Discussions &amp; online communication</p> <p>Informal – One-on-one and group work</p> <p>Excursions</p> <p><b>Continuous input and education around:</b></p> <p>Smoking,</p> <p>drinking,</p> <p>sexual activity</p> <p>physical inactivity</p> <p>crime</p> <p>Violence</p> <p><b>The impact of:</b></p> <ul style="list-style-type: none"> <li>• Peer pressure,</li> <li>• role models</li> <li>• lack of communication</li> <li>• dysfunctional homes</li> </ul> <p><b>Contact</b></p> <p>Family</p> <p>School</p> <p>Church</p> <p><b>Summary</b></p> <p>Evaluation of participants and goals are set as to improvements that need to take place from week 4-12</p>	<p><b><u>Session 4: Week 10-12</u> Relationship Development</b></p> <p><b><u>Evaluation of participant</u></b></p> <p>Relationship Evaluation of participants</p> <p>Linked to school</p> <p>Essential Components of the participant`s life</p> <p>Family, Community, Church</p> <p><b>How does participant see how this fit into:</b></p> <p>His Life (Himself)</p> <p>Family</p> <p>Community</p> <p>Church</p> <p><b>Tasks</b></p> <p>Formal – Education and relationship skills development</p> <p>Facilitation, Discussions &amp; Workshops</p> <p>Informal – One on one and group work</p> <p>Family, peer and community interactions through role plays, presentations, excursions</p> <p><b>Focussing on:</b></p> <p>Relationship dynamics, barriers and facilitators and incorporating Life skills learnt in previous session</p> <p>Exposure to opportunities to practically engage in relationship building</p> <p><b><u>Activities running concurrently with the phases:</u></b></p> <p><b><u>Weeks 1-12</u></b></p> <p>Improve Physical Stature of the participant (Partnership with school and DCAS)</p> <p>Health Screening</p> <p>Strength</p> <p>Endurance</p> <p>Overall Fitness</p> <p>Sport Skills</p>
<p><b><u>Session 2: Weeks 4-6</u> Life Skill Development</b></p> <p><b><u>Evaluation of participant</u></b></p> <p>Life Effectiveness Evaluation of participants</p> <p>Linked to school</p> <p>Essential Components of the participant`s life</p> <p>Family, Community, Church</p> <p><b>Tasks</b></p> <p>Formal – Education Life Skills</p>	<p>Soft Skills Development / Education</p> <p>Health Risk Behaviour</p> <p>Life skills</p> <p>Enhancing impact of domains identified in a positive manner</p> <p>Leadership</p> <p>Relationship Development</p> <p>Constant contact with Religious Sector and Police to be up to date with happenings/situation in</p>

<p>Facilitation, Discussions &amp; online communication Informal – One-on-one and group work Excursions</p> <p><b>Continuous Soft Skills Input</b> Time Management Self -Esteem Achievement Intellectual Flexibility Emotional Control Active initiative Task Leadership Social Competence Health risk behaviour education</p> <p><b>Focussing on:</b> Life skills programmes Exposure to consequences of engagement in HRB Literacy</p>	<p>Community that the participants come from</p> <p>Use real- life situations (school, sport, community) and relate to challenges within the community. Participants explore how the situation was resolved, how they reacted to crisis and how it relates to challenges and how they can possibly deal differently with it.</p> <p>Constant affirmation from outside persons/organizations is given which includes using people from the participants` communities that have broken the shackles</p> <p>The programme also makes use of community members and trains them as Facilitators, mentors etc. within the programme. Building towards sustainability of project within community</p>
<p><b><u>Session 3: Week 7-9 Leadership Development</u></b> <b><u>Evaluation of participant</u></b> Leadership Evaluation of participants Linked to school Essential Components of the participant`s life Family, Community, Church</p> <p><b>How does participant see how this fit into:</b> His Life (Himself) Family Community Church</p> <p><b>Tasks</b> Formal – Education and leadership skills development Facilitation, Discussions &amp; online communication Informal – One-on-one and group work Excursions</p> <p><b>Focussing on:</b> Leadership development and incorporating Life skills learnt in previous session</p>	<p>All participants (Learners, facilitators, teachers, parents, community members) are assessed to measure the impact of the programme as well as ascertain where adaptations to the effectiveness of the programme need to be made</p> <p>Regular face-to-face contact with the participants in groups and one- on- one</p> <p>Partnerships with department of sport, social services, Police, Schools and churches in order to address the continuous needs of the participants within their specific community and circumstances</p> <p>Graduation of participants following first year of programme. Creating mentors or peer buddies for new participants into programme</p> <p>Graduated participants become members of the school and community structures for the specific sport codes Gender and age specific activities as well as mixed groups</p> <p>Evaluation by Facilitators and Participants of experience of change/difference in Life skills, combatting of Health Risk Behaviour, leadership and relationship building</p>

Exposure to opportunities to practically make use of learnt leadership skills	SWOT Analysis
---	---------------

## 7.4 CONCLUSION AND SUMMARY

The youth development programme has been developed through the use of the different phases that informed and built upon each other. All the information captured through these phases ultimately created an informed programme that will attempt to reduce the current health risk behaviour of learners in grades 8-10. The programme is designed in such a manner that it can easily be adapted to address grades or age groups that are beyond the current scope described. The programme incorporates information gained through the needs assessment phase which attempted to seek the current HRB of learners, focus groups and individual interviews which sought to gain a deeper understanding as to the reason for the engagement in HRB, the needs of learners as to how they should be addressed, a systematic review which assisted in gaining information globally on youth development programmes pertaining to the structure of programmes. Through this process the researcher gained a deeper understanding of how to plan and design a diverse programme that can meet the needs of learners each with their own experiences, exposures, capacity and challenges in an ever-changing environment.

## **CHAPTER 8**

### **FEASIBILITY STUDY**

#### **8.1 INTRODUCTION**

This chapter summarises the results of the feasibility study of the resultant programme presented in Chapter 7. Bryce (2008) concluded that: “[a] feasibility study should provide management with enough information to decide the following: Can the project be done? Is the final product beneficial to its intended users? Are there alternatives among which a solution can be chosen? and Is there a preferred alternative?”. Feasibility was tested through the use of a Delphi method that was used to facilitate the process of reaching consensus on the content and structure of the proposed programme in order to answer some of the questions indicated above. This was done in order for the researcher to determine whether the designed programme encourages confidence that it has the potential to be beneficial to its intended users, with the knowledge that all possible resources and solutions have been engaged.

#### **8.2 METHODOLOGY**

The Delphi method is defined as “a multiple iteration technique usually meant to be anonymous with the purpose of refining the expert opinion and ultimately arriving at a combined or consensual position” (Helmer & Rescher, 1959). The original Delphi method was designed in the 1950s by the The Rand Corporation. Over the past 55 years the method has been refined, modified and improved and new technology has emerged that has paved the way for it to be implemented through various mediums.



The basic process has however remained the same, and the same principles that applied in the 1950s still ring true today. The Delphi method allows for equal input from each selected expert and reduces the undue influence of a single viewpoint. Falzarano & Zipp (2013) state that it is through critical appraisal of the research that health science educators, researchers and clinicians seek to support their craft with the best available evidence. In Health Sciences literature, the Delphi technique is a method used to provide practical guidelines and to establish consensus via expert opinion on a recommended approach. Keeney, Hasson and McKenna (2006) explain that the Delphi technique is a method used to reach consensus on something that is not known or to obtain judgement about a subject. In the Delphi technique a series of questions are posed in an effort to obtain controlled feedback in order to reach the most reliable consensus among a group of experts in a specified area (Linstone & Turoff, 2002).



### **8.2.1 How many rounds?**

One of the characteristics of a Delphi study is the feedback process that allows the participants to re-assess their initial judgements, and thus the process of different rounds is encouraged (Hsu and Sandford, 2007). During the present study the Delphi method was carried out over a period of three months, which was expected to consist of three rounds. The study used only two rounds because consensus was reached by the expert opinions at the end of Round 2.

### **8.2.2 The panel of experts**

According to Linstone and Turoff (2002), a Delphi panel may be determined based on three sets of criteria which are: (1) stakeholders who may be directly affected by the topic under discussion, (2) experts who have an applicable specialty or relevant

experience in the area under discussion, and (3) facilitators who have skills in clarifying, organising, synthesising or stimulating because they are at the coal face of implementing such interventions. The participants in this study constituted a combination of the suggested panel criteria. A purposive sample of 24 experts was invited to participate in the Delphi study. The experts invited included two principals, an education specialist in the Department of Education Western Cape, seven academic published experts in youth development programmes and life skills training, three in community safety, one social worker, three life skills trainers in youth development, two working in the youth or social development institution or agencies, and five in the Department of Arts, Sport and Culture Western Cape. The composition of the panel of experts made it possible for the researcher to capture various expertises pertaining to youth development and health risk behaviour interventions. The composition included implementers of youth development programmes, published researchers (local and international) into interventions and the evaluation of health risk behaviour programmes, teachers and principals involved with the ground-level upliftment of learners assisting in preventing or reducing engagement of health risk behaviour amongst learners. The social workers were involved with various health risk and life skills programmes in communities both locally and internationally.

### **8.2.3 Process**

All the invited experts received an invitation letter containing information regarding the current PHD study and the need for their assistance as an expert in the field of youth development (Appendix M). The experts were informed that on acceptance of the invitation, a consent form attached to the email should be completed and submitted. The consent form contained first a section where the expert could indicate

whether he/she consented to participate in the study. After consenting to participate, the expert's demographic details such as age, gender, years of experience and expertise within youth development needed to be completed and submitted to the researcher.

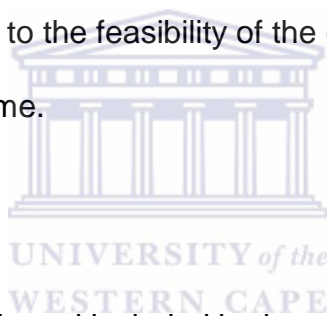
The Delphi process was administered online using Google docs. Experts were requested to participate in an online questionnaire to give their opinion on the feasibility and content of the Youth Development Programme that was designed by the researcher. The consent form and the questionnaires for the various rounds of the Delphi were designed on Google Form. The experts were asked to follow the prompts/ links provided in the email they received. Google Forms enable one to complete the consent forms and questionnaires online. On completion, the participants were requested to submit the consent forms and questionnaires.

Specific questions were arranged in order for the panel of experts to give input as to:

(i) the scope of the programme, (ii) the content of the programme, (iii) the approaches of the programme, (iv) the implementation of the programme, (v) the resources of the programme and (vi) the cost of the programme.

During Round 1, the experts were asked to rate their degree of agreement on a scale of 0 (*no agreement*) to 5 (*full agreement*). The higher the number, the more they were in agreement that the items were important and appropriate. In order for consensus to be reached on each question, a score of 75% and more had to be reached.

During Round 2, the experts were sent a questionnaire pertaining to the sections or questions where consensus of 75% and above was not reached during Round 1. They were again requested to choose a number from the scale 0-5 that was provided to indicate whether the changes made to these questions or sections (following input from the experts in round 1) met their approval and agreement. The experts were given the opportunity to comment on these sections and provide any added information that they felt was of importance to the youth development programme being designed. Consensus was reached at the completion of Round 2 as all the questions posed in the questionnaires during Round 1 and 2 obtained a score of 75% and more. The final consensus enabled the researcher to gain an understanding from experts as to the feasibility of the components of the programme as well as the overall programme.



#### **8.2.4 Data Analysis**

In the Delphi process, data collected included both qualitative and quantitative items. According to literature, the major statistics used in Delphi studies using quantitative data are measures of central tendency (mean, median, and mode) and level of dispersion (standard deviation and inter-quartile range) in order to present information concerning the collective judgements of respondents (Hasson, Keeney, & McKenna, 2000). The quantitative data from Round 1 and 2 of this Delphi study was analysed and presented using the mean and mode for each component and its sub-sections.

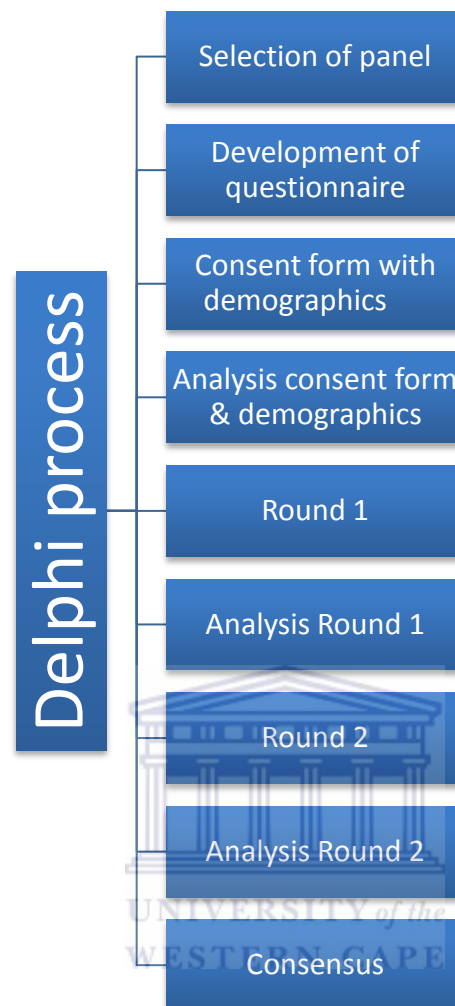
Qualitative data was also obtained during the *Delphi* study. According to Hsu and Sandford (2007), researchers need to find an appropriate method to deal with the

qualitative data. The qualitative data was summarised with all the responses grouped under the specific questions, and was then classified into themes. Quotes were used to substantiate the themes, and the researcher then interpreted the quotes in line with the intervention programme needs. The researcher then reflected on the quotes and provided comments for the application and consideration of the revised programme.

Figure 8.1 provides an overview of the entire Delphi method that took place. This figure maps the process from the selection of the expert panel up to the point where consensus was reached.



**Figure 8.1 Process of the Delphi study**



### **8.3 RESULTS**

Twenty-four experts were invited to participate in the Delphi study and 19 consented to participate, yielding an initial response rate of 79.16%. During Rounds 1 and 2, 15 (62.50%) and 14 (58.3%) of the experts completed the full process. With each round all 24 experts were invited to comment. The process was anonymous and the researcher could not identify any expert and had to rely on the goodwill of the experts to participate.

### 8.3.1 Demographic details

The demographic profile of the 19 respondents is reflected below as the demographic data was collected with the initial invitation and consent. Of the respondents, 68% were male and 32% were female with an age range of 31-61 years. The professions of the respondents were: principals (n=2), academics (n=8), life skill trainers (n=2), social worker (n=1), youth development workers (n=2), education department circuit manager (n=1) and community safety officers (n=3). The minimum years of experience working with youth was 6 years and the maximum was >21 years. The experts had varying roles within the area of youth development and included life coaching implementing capacity building, personal development and job preparedness programmes. There were also respondents involved with youth development through sports programmes as well as a substance abuse prevention specialist who worked in the area of youth development in a social work and public health framework. Some of the participants had conducted research in the area of youth development and published in the area. Finally, some respondents were responsible for putting structures and systems into place to effectively deal with risky behaviour.

**Table 8.1 Profile of participants**

<b>Demographic information</b>	<b>Years of experience</b>	<b>Years</b>	<b>Current position</b>	<b>Roles related to youth development program</b>
Male	16-20 years	Aged between 46-50 years	Academic	Involved with youth mainly on a life coaching level by implementing capacity building and personal development and job preparedness programmes.
Male	11-15 years	Aged between 41-45 years	Academic	Involved with youth in various NGOs and community programmes focussing on Youth Development.
Male	21 years and above	Aged between 46-50 years	Academic	Involved in developing youth through sport. Chairman of a community football club that incorporated knowledge on how to play sport and focussed on various skills development. The aim was to create a culture of sportsmanship, patience, respect and understanding for one's fellow human beings.
Female	6-10 years	Aged between 31-35 years	Social Worker	My graduate studies focused on substance abuse prevention and HIV/AIDS prevention in youth. I developed substance abuse prevention curriculums and trainings. I was a Substance Abuse prevention specialist in Chicago and worked extensively with life skills curriculums on a primary and secondary level. Most of my work has been in the area of



				youth development within a social work and public health framework.
Male	11-15 years	Aged between 56-60 years	Life Skills Trainer OR work within youth development programmes	Facilitate leadership and life-skills training to youth as well sport management and tennis skills to young people.
Female	11-15 years	Aged between 46-50 years	Academic	Research area is youth health risk behaviours and the appropriate interventions to address these.
Female	21 years and above	Aged between 46-50 years	Academic	I have worked with adolescents in a variety of ways including a school-based risk prevention programme that promotes positive use of leisure time and healthy choices.
Male	21 years and above	Aged between 56-60 years	Academic	Conducted research on growth and development of youth from low socio-economic environments as well as the relationship between parental involvement and that of their adolescent children.
Male	16-20 years	Aged between 52-55 years	Academic	My focus is on HIV prevention and risk reduction (sexual and other risks) activities with a target focus on university students and high school learners
Male	21 years and above	Aged 61 years	Academic	I do research and have published on this topic

		and above		
Male	21 years and above	Aged between 52-55 years	Principal	My role entails putting structures and systems in place to deal effectively with risky behaviour among youth. Outside intervention forms part of these structures and systems (social services, sector police, district officials of WCED).
Male	21 years and above	Aged between 52-55 years	Community Safety Department / Organisations	In my various roles I assisted by conducting research to develop, implement, maintain and evaluate programmes that address the needs and challenges facing young people. I am currently a researcher at the Western Cape Provincial Government that implements various youth intervention programmes as part of its mandate to increase safety in the Western Cape.
Female	21 years and above	Aged between 52-55 years	Work within the Education Department	As a Chief Education Specialist responsible for managing educational opportunities for learners I ensure that opportunities for enrichment are created and effectively managed at schools for learners. In addition, I manage the implementation of policies with regard to safety and health of learners, as well as intervention strategies implemented in this regard.
Male	21 years and above	Aged between 46-50 years	Work within the youth or social	Life skills or work with youth development programmes

			development institutions	
Male	16-20 years	Aged between 46-50 years	Community Safety Department / Organisations	Author of Department of Social Development and Provincial Government Western Cape Youth Development Strategies
Male	16-20 years	Aged between 41-45 years	Life Skills Trainer OR work within youth development programmes	Manager of youth development programme through sport and training, coach for the last 20 years
Female	21 years and above	Aged 61 years and above	Community Safety Department / Organisations	Work within the sport promotion component managing major events (sport tourism) facilities (Infrastructure development) and promotion of healthy lifestyles within all government departments using the medium of sport
Male	21 years and above	Aged between 56-60 years	Principal	As Principal it is my primary duty to see to it that the curriculum is implemented effectively and in adherence to all prescriptions of the Department of Education. By doing this I believe that the youth at my

				institution will be led in the direction of developing their potential to the fullest.
Female	16-20 years	Aged between 46-50 years	Work in the youth/ social dev institution or agencies	I am responsible for writing policies on youth development. Secondly I am responsible for the coordination of the implementation of the policies



### 8.3.2 Results of Delphi round 1

During the first round, 15 experts responded to the request to rate the feasibility of the components of the proposed youth development programme. With this method the panel of experts could give input as to: (i) the scope of the programme, (ii) the content of the programme, (iii) the approaches of the programme, (iv) the implementation of the programme, (v) the resources of the programme and (vi) the cost of the programme.

The components on which the experts had to respond and comment during Round 1 are listed below in Table 8.2.

**Table 8.2 Measures of central tendency from Round 1 Delphi Scoring (n=15)**

<b>Scope of the programme</b>	<b>Mean</b>	<b>Mode</b>
Target Group – Gr 8-10 learners	4.3	5
Health risk behaviours to be targeted, namely smoking, drinking, sexual activity, drug use, physical inactivity, crime, and violence	4.9	5
Gender	4.46	5
Acquiring of life skills	4.53	5
Role of peer pressure, role modelling, lack of communication and dysfunctional homes	4.46	5
Pre and Post Evaluation of the programme	4.66	5
<b>Content of the programme</b>		
Education on health risk behaviours		
Smoking	4.66	5
Drinking	4.73	5

Drug use	4.86	5
Sexual activity	4.66	5
Physical inactivity	4.86	5
Crime	4.73	5
Violence	4.86	5
LifeSkills Training		
Communication Skills	4.80	5
Decision-making Skills	4.86	5
Coping Skills	4.80	5
Practical Exposure to consequences	4.93	5
<b>Approaches to the Programme</b>		
Group Discussions	4.66	5
One-on-One	4.66	5
Lectures	2.86	3
Practicals	4.73	5
Group activities such as sport/arts/culture	4.80	5
Volunteer or community work	4.60	5
Online Forums	4.33	5
FieldsTrips	4.73	5
<b>Implementation of the Programme</b>		
School and after school based	4.60	5
Peer education	4.93	5
Community (Churches, Police, parents)	4.80	5
Profssionals (Health Educators, physio, psychologist)	4.73	5
NGO`s	4.80	5

Teachers	4.40	5
<b>Resources of the Programme</b>		
Training/ workshopsTrainers/Facilitators	4.60	5
Workbook for participants/learners	4.66	5
Training manual facilitators	4.53	5
Inventory of registered facilitators	5.00	5
Information Brochures on HRB	4.53	5
Contact list of important Institutions (Police, Childline, Hospitals)	4.53	5
Website for updates, training and information regarding programme	4.60	5
	4.66	5
<b>Cost of the Programme</b>		
Feasibility based on resources provided	4.20	5

During Round 1 the experts also provided comments for the researcher to consider that would contribute to the design of the youth development programme. The table below illustrates the comments made by the experts under the components of Round 1. A number of categories emerged from the themes. In the theme of target population age and its challenges, vulnerable groups and vulnerable transitions such as grade 9, socio-economic status, and development milestones emerged. In addition drop out from school also emerged. In the theme of content, various suggestions were made under skills development which included life skills, coping skills, decision making skills, communication skills and skills regarding moral responsibility. Approaches to be used in the programme generated discussion as lectures were seen to be too didactic, and alternatives were suggested. In addition, the implementation of the programme by teachers at school was challenged as the

power-relationship between teacher-student was questioned. There was a need identified to ensure ownership of the programme and parental involvement. The focus of lack of skilled facilitation was also highlighted.





**Table 8.3 Qualitative Responses from Experts Round 1 Delphi**

<b>Component</b>	<b>Theme</b>	<b>Comment</b>	<b>Reasoning</b>
Scope of the Programme	Target population	<p>Maybe you should focus your programme on the most vulnerable group. Peer group pressure is of utmost importance.</p> <p>Large numbers of learners drop out in Grade 9. A significant number of these learners are over age – that's the age gap between grade 8 and 10 could vary significantly in low socio-economic public schools.</p> <p>The target group could be age-specific. Just a thought. Also, the researcher must be mindful that the cognitive development at these critical ages would also be varied.</p>	<p>As the respondents felt that the age variance between grade 8 and 10 is too big, some activities could be age-specific.</p> <p>The programme will have to consider the background and context of the participants in the programme.</p>

	Socio-economic status	<p>Not adequate accommodation class distinction – income availability. Impact of race distinction. Impact of before October 1996 law– Education content, re job reservation and separate development.</p>	<p>Understanding of the impact of the socio economic status of participants need to be taken into account as this poses many challenges for participants.</p>
	Health risk behaviour	<p>Health risk behaviour – It is important that the specific reason for getting involved in sexual activity should also be addressed. (I think males have more leverage).</p> <p>Target Group: Major factors influencing health risks: Add educational experiences.</p>	<p>Foci to be on cause and reasoning for health risk participation. Education of participants will be taken into account as it includes exposure to consequences of engagement in HRB.</p>

	Personal Characteristics	<p>To consider including relationships.</p> <p>Lack of Religious Interventions: this is important as the outcomes need to be constantly evaluated to ensure that the programme remains needs-based.</p>	<p>The relationships that participants have with parents, peers, girlfriend etc. will it be addressed as it impacts the choices that participants make regarding their life.</p>
Content of the Programme	Life Skills	<p>Life Skills training Education is necessary but "knowledge" has been documented to be not so successful as exposure to the consequences. Maybe you should focus on the risk behaviour with the most negative consequences and differentiating according to the context of the target group.</p> <p>Coping Skills – Empowerment must be societal sensitive and relative Impact of</p>	<p>Life skills incorporated as a very important component of the programme</p>

		<p>foreign on the diversification of our society</p> <p>re African, Asian and near Asian relevance</p> <p>(Drug pushers, Spaza Shops, Barber Shop)</p> <p>The health relatedness of educational content must be clarified, researched and communicated in practical sense.</p> <p>Communication Skills: Reasoning skills/critical thinking</p> <p>to consider including relationship life-skills training.</p>	
	Content	<p>I would include in the content, maybe it is covered as a subsection, something about morality and social decay...consequences??/</p> <p>Will violence and crime be grouped</p>	<p>Groupings of health risk behaviour will take place as one leads to another.</p> <p>Individual attention will also take place. Programme-based</p>

		<p>together?</p> <p>This should be decided based on the needs as established by interaction with participants.</p> <p>2.1.1 - 2.1.4 Too much information tends to be counter productive.</p>	<p>on current needs of the participants, continuous assessment to make sure it is met throughout programme.</p>
Approaches of the Programme	Lectures	<p>I would steer away from lectures; by definition it suggests a monologue approach....maybe replace it with facilitation whereby it could be more interactive.</p> <p>Scenario sketching is also a useful tool!</p> <p>Lectures: Do these lectures consist of one way communication activities?</p> <p>Recommended that such sessions instead consist of interactive knowledge and skills-</p>	Replaced by facilitation


	Field Trips	<p>sharing sessions.</p> <p>Lectures: Once again – do not over-inform orally and be careful not to bore learners.</p> <p>Field Trips Practical experience includes not only knowledge but also emotions and is therefore more effective. Field trips allow for differentiating the approach.</p> <p>This is important to ensure that more informal learning takes place as it has a lasting impact and it is what youth enjoy</p>	<p>Core component as learners have indicated the need to be exposed to the consequences of HRB.</p>
Implementation of the Programme	Elements	<p>Critical elements have been included in the context of implementation – no additions or deletions</p> <p>Teachers: Participants might not be as free</p>	<p>Elements based on current needs and research.</p> <p>The programme will</p>

	Teachers	<p>as they would like to express themselves or fully participate if teachers present.</p> <p>Teachers should focus on their main focus which is education, and only have understanding of the programme. The participants need to separately be dealt with in the programme to allow for the constant evaluation of the progress. Teachers' complaints about participants, the time that learners spend in presence of the teacher.</p> <p>The objective is to have the different parts tested regularly and independently of the teacher.</p> <p>4.6 Teachers - Limit teach involvement to organisational and administration "aspects".</p> <p>Teachers: All potential persons should be</p>	<p>incorporate teachers in specific roles and will be mindful of when their involvement will be needed. Learners will build trust with facilitators and teachers throughout the programme.</p>
--	----------	---	--

	Measurement of Impact of Programme	involved to reach maximum efficacy.  Implementation of the programme: How is the impact measured/reported on?	Pre- and post- testing of participants will take place. All facilitators,coaches, parents, teachers etc. will participate in evaluation throughout all the phases of the programme in order for constant guidance and changes to take place where needs change.
	Parent Role	Pre-school involvement important aspect to consider. Understated the role of the parent as they have bigger impact. Their role	The programme is based on the involvement of the learners and the community and





		<p>should be more explicit, empowered and exploited.</p>	<p>environment that impacts on them. The parent is one of the most important components that will play a decisive role. The education and life skills development of the parent and rest of the community is an important component as learners need to grow with all that affects them.</p>
	Ownership	 <p>Implemented by and implemented with should be discussed. Willing participants that are not skilled can do a lot of harm.</p>	<p>Engaging with all to participate to bring meaningful change will be through continuous group workshops, skills development, education and the exchanging</p>

			of responsibility to bring about taking responsibility and ownership of creating a better life.
Resources of the Programme	<p>Knowledge</p> <p>Engaging with participants</p>	<p>There is already a host of information available. The skill to navigate and use the information should be the focus. The focus should be on utilisation of existing knowledge and the interpretation of it to make it relevant to participants. The link between the knowledge and skills of facilitators and participants is vital.</p> <p>Work books - Many young people regard work books as a nuisance. 5.6 Information brochures – Young people don't want to</p>	<p>The programme will cater for existing knowledge and partnerships within communities government organisations and will link knowledge and skills of facilitators and participants.</p> <p>The use of social media and the internet will play an integral</p>

		<p>read. Not entirely sure if all these mentioned should be seen as resources? Website:</p> <p>Excellent idea.</p> <p>Could have road shows....community radio shows, take calls have it once a week/month...just to create a more interactive forum that has a broader audience...</p> <p>Workbook must be easy reading, with terminology that is regionally focussed .</p> <p>None; however with the website it would be useful that the website be hosted by particular NGO's in the community.</p> <p>Resources: Social media should more than ever be used. A clear and permanent structure should be implemented or</p>	<p>role to engage learners.</p> <p>Designing of websites by learners to engage topics around HRB would be one way to change how knowledge is created.</p>
--	--	---	---

	Vetting of facilitators	<p>considered and not only the period of the experiment. Here a contact with NGO's should be necessary. Resources: Social media should more than ever be used. A clear and permanent structure should be implemented or considered and not only the period of the experiment. Here a contact with NGO's should be necessary.</p> <p>Registered data base of facilitators – Vetting of facilitators.</p>	Facilitators used will undergo training pertaining to the programme in order to form part of the programme.
Cost of the Programme	Partnerships	Should be broadly spread – Government Department, Pharmaceutical companies, Brandy Wine cigarette industries. All	Partnerships will be created with NGO`s, Government, Private Companies,

		<p>international developments should have a standard clause where assistance is guaranteed for the implementation of healthy projects. Corporate Social Investment could be part and parcel of such a roll out at schools Cost: Maybe you can reduce the costs if you can interest some NGO's to join? The cost should be flexible as it should be based on group as well as individual intervention. Group-based approach has limited success.</p>	<p>Communities etc. Reduction of cost as well as creating ownership of the programme as the change needs to take place from their programme to our programme</p>
	Flexibility of programme	<p>I think the people who are gathering this information should apply their minds to this.</p> <p>Programme needs to reflect a balance across different programme approaches and</p>	<p>The design of the programme looks at diversity. Therefore applying interventions based on current needs and</p>

		resources, e.g. greater emphasis on peer-to-peer approaches as opposed to use of professionals. None Overall remark: Questions are well structured and to the point.	participation by all involved will be of utmost importance.
--	--	---	---



The components on which less than 75% consensus was made during Round 1 Delphi are given below and were subsequently re-sent to the experts during a second round.

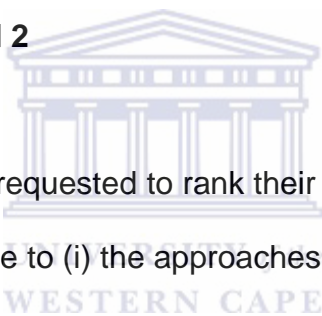
### **Approaches of the programme**

- Lectures

### **Cost of the Programme**

- Feasibility of the cost of the programme considering all the resources provided

### **8.3.3 Results of Delphi round 2**

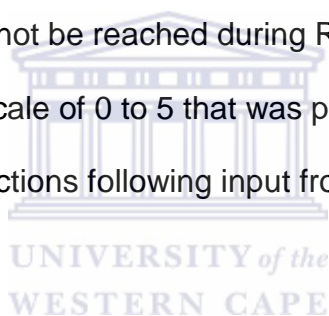


During Round 2, experts were requested to rank their agreement following changes and adaptations that were made to (i) the approaches of the programme and (ii) the cost of the programme. The changes and adaptations were made based on the comments and input from the experts. Under the approaches of the programme, experts commented and advised that lectures are not a suitable approach as they are a one-dimensional medium of communication and knowledge translation. Based on these inputs and comments, lectures were replaced by facilitation sessions.

The second area where consensus could not be reached during Round 1 pertained to the cost of the programme. Experts advised that partnerships with government organisations, NGO`s, NPO`s (as part of their TPOs) and private companies (as part of their Corporate Social Responsibility) should be formed in order to assist with the cost of the programme, together with all the resources that the programme would

already be providing. Subsequently the partnerships as mentioned above were added to the items that would be used to assist improving the feasibility regarding the cost of the programme.

During Round 2 the experts were sent a questionnaire that incorporated the two items discussed above, namely: (1) Lectures being replaced by facilitation sessions under the Approaches of the Programme and (2) Partnerships with Government organisations, NGO`s, NPO`s and private companies to improve the feasibility of the programme regarding cost. The experts were also requested to add any comments following the completion of their ranking their agreement of the changes of the only items where consensus could not be reached during Round 1. The experts were again requested to rate on a scale of 0 to 5 that was provided, to indicate whether the changes made to these sections following input from the experts in Round 1, met with their approval.



**Table 8.4 Round 2 Delphi Study n=14**

<b>Component</b>	<b>Mean</b>	<b>Mode</b>
<u>Approaches of the programme</u>		
Lectures replaced by facilitation	4.62	5
<u>Cost of the programme</u>		
Partnerships with NGO`s, Government Organisations and private companies to improve feasibility regarding cost of the programme	4.62	5



During Round 2 the experts also provided comments for the researcher to consider that would contribute to the design of the youth development programme. The table below illustrates the comments made by the experts under the components as provided in Round 2.

A number of categories emerged from the themes during Round 2 of the Delphi. In the theme of facilitation, trust, training of facilitators, relevance of topic to socio-economic status of participants, and facilitation as an effective tool, emerged. In the theme of partnerships, the importance of the involvement of government institutions, provincial and national, were stated. The importance of private funding especially through CSI support, was highlighted.

On completion of Round 2 of the Delphi, consensus was reached on all components following input from the invited experts. The experts were informed that consensus was reached following two rounds of the Delphi study. They were thanked for their participation and the valuable input given during the Delphi study and its subsequent rounds.

**Table 8.5 Responds from Experts Round 2 Delphi**

<b>Component</b>	<b>Theme</b>	<b>Comment</b>	<b>Reasoning</b>
Approaches of the Programme	Facilitation	<p>From personal experience, the information "sticks" more when facilitation occurs. The facilitators need to be trusted by the youth for this process to be effective. Collaborations are imperative. Facilitation as a learning tool is great, but again the training of the facilitators is equally important. Content experts must be able to adapt to ensure creating the pulling effect rather than the pushing away. I think it's a great addition as the methodology for facilitation vs lecturing will add value to the programme.</p>	<p>Facilitation replacing lectures which are seen as one-dimensional while facilitation creates opportunity to engage participants with reciprocal communication and discussion. Continuous training of facilitators important component that will enhance effectiveness of the programme .</p>

		<p>Correct. The success of the methodology should be relevant to the socio economic environment and well as the context of the participants with regard to aims and objectives</p>	
Cost of the Programme	Partnerships	<p>The importance of Education Dep and Health as well as the continuous information sharing with the parents or guardians.</p> <p>I think it is important to get government institutions etc. on board, because we have to adopt a preventative approach.</p> <p>Partnerships are critical for the success of any venture, especially if it forms part of a national department's key performance</p>	<p>Partnerships with various organisations will be negotiated to improve cost effectiveness of the programme.</p> <p>Government institutions can play an important role in assisting with training of facilitators.</p> <p>Engaging with private companies to assist with funding will become an important component that will</p>

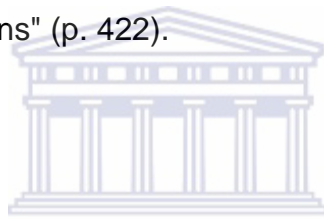
		<p>areas.</p> <p>A wealth of funding is locked up in CSI where billions roll over every year without being accessed because of a lack of capacity. Organisations simply do not know how to compile proposals. This must be a side issue but there is reason for concern around this all the same. The cost will always be a factor because it can become expensive because a lot of time goes into preparation for the facilitation.</p>	<p>assist in sustainability of the programme. Part of the expansion of the programme is workshops on partnerships and proposal writing for funding to improve sustainability Partnerships incorporated to assist.</p>
--	--	--	---

## 8.4 ADJUSTMENTS TO THE PROGRAMME

Through the successful implementation of the Delphi study the following adjustments could be incorporated to affect the development of the programme and improve the effectiveness of the programme when implemented. Firstly lectures as an approach was replaced with facilitation to create a more reciprocal interaction between participants and facilitators as lectures were seen as one-dimensional and boring, and will lead to participants losing interest in the programme. Secondly partnerships between NGO's, Government Departments and Private Companies will be pursued to assist in the cost effectiveness or feasibility of the programme. Literature has shown that the capacity, skills and knowledge of facilitators are important components needed for successful programmes. The central reason for including life skills education in the school curriculum is that an interventional, preventative and developmental approach to equipping schoolchildren (learners) in the senior phase with coping skills will help them deal effectively with predictable developmental tasks and an ever-changing world (Curriculum 2005). The experts in this Delphi panel also commented on the importance of this. The design of the programme was therefore influential in creating facilitators who undergo training within the programme. A further component that needs to be incorporated is that the programme will have an ongoing evaluation through interviews/focus groups with facilitators and participants to gain continued feedback regarding the effectiveness of the programme through each phase and to establish whether any adaptations need to be made in real time or as things occur. Programme evaluation is one of ten essential public health services (Public Health Functions Steering Committee 2000) and a critical organisational practice in public health (Dyall 1995). The underlying logic of the

Evaluation Framework is that good evaluation does not merely gather accurate evidence and draw valid conclusions, but produces results that are used to make a difference (CDC, 2012). The use of social media and the website will be heightened as experts commented on the importance of this to engage with participants. The experts commented on the fact that learners do not necessarily enjoy reading and using books as learning material. “Therefore, if they (youth) are communicating, interacting and inhabiting social networks and indeed, spending a lot of their time on these networks, surely we must have a presence on these networks too?” (Muirhead 2013). Researchers have found that teenagers find creative ways to gain access to new technologies, participate in various online communities that help them learn new skills, and delve into deep learning on topics that are personally interesting to them (Ito, *et al.*, 2010). Many scholars suggest that students learn in new ways using social media, and that educators should embrace these new platforms (Ito et al., 2009; Jenkins, 2006). Teenagers also utilise social network sites to provide social support to peers, share creative work, and network with others (Greenhow & Robelia, 2009). Incorporating social media and website design to display information regarding health risk behaviour will form part of the programme. In this way learners will be introduced to researching information on the topics needed to form part of their tasks, creating opportunity for learners to engage in reading and communicating with each other and facilitators, therefore, hopefully creating a propensity for more reading to take place amongst learners as the importance of reading to gain more knowledge and understanding will be explored. The programme will also be designed to be sensitive to the background and experiences of participants whether socio-economic, education, context, existing capacity or skills. The UNESCO (2009) definition states that inclusive education is: ‘an ongoing process aimed at offering

quality education for all while respecting diversity and the different needs and abilities, characteristics and learning expectations of the students and communities, eliminating all forms of discrimination' (p. 3). Age and gender also need to be addressed with thought, as certain interventions might need to be age- or gender-specific to create an opportunity for greater impact. In other instances, peer or mentor interaction might need to be in different age and gender groups. More recently, through model confirmation (Martin, Fabes, Hanish, Leonard, & Dinella, 2011), it was suggested that "the more children believe they are similar to their own gender group, the more likely it is that they will prefer same-gender partners because of the increased likelihood of enjoyment, satisfaction and mutuality that they believe will result from these interactions" (p. 422).



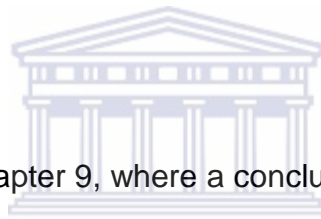
## **8.5 CONCLUSION**

With the use of the Delphi technique it was possible to get expert opinion and input regarding the design and development of a youth development programme that could ultimately assist in the reduction of health risk behaviour among learners in grades 8-10. The results and observations following the Delphi study indicate that the Delphi technique can be a very helpful tool during the design and development of a programme, especially when the need of expert input is of high priority, as it creatively ascertains expert opinion and advice on a specific area or topic. In this study the researcher through the Delphi could include important stakeholders who have the expertise that ultimately is needed to improve youth development programmes. In this study four participants during Round 1 and five participants during Round 2 who consented to participate were lost to follow up during the process at different stages, which reflects one of the limitations in the Delphi

process. Successful Delphi requires highly motivated and willing participants.

Through this process, however, the researcher was able to get consensus on all the components that formed part of the Youth Development Programme that is being designed. More importantly aspects have been highlighted that should affect the design of the youth development programme, which include:

1. scaffolding of the programme into specific age- and gender-based activities;
2. the understanding that the programme should be sensitive to the diverse needs and background of its participants;
3. the need for training of facilitators in order to have the participants being mentored by facilitators equipped to deal with the challenges that will emerge throughout the programme.



This chapter is followed by Chapter 9, where a conclusion and summary of the study and its findings will be given. The Delphi study has played an important role in adding substance and meaning to the way forward when designing youth development programmes.



## CHAPTER 9

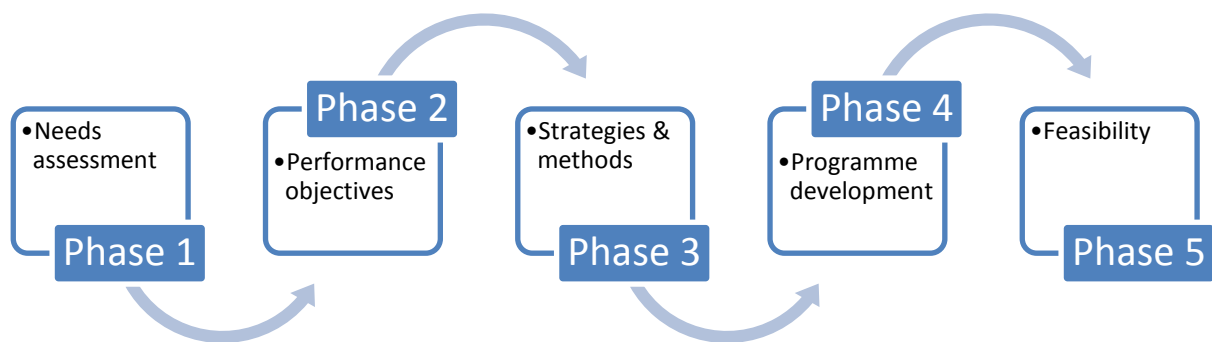
### EXECUTIVE SUMMARY & CONCLUSION

#### 9. EXECUTIVE SUMMARY

##### 9.1 INTRODUCTION

The main aim of this study was initially to design, evaluate the feasibility of, and implement, a comprehensive youth development programme that will help to equip learners with the skills to change engagement in health risk behaviours in selected schools in the Paarl area. The study was conceptualised using Intervention Mapping as a theoretical framework that underscored the engagement of stakeholders in a five-phase process as reflected in Figure 1 below.

**Figure 3.1: Phases of the study**



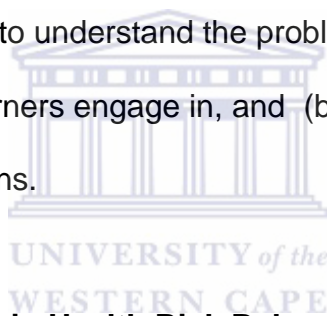
The core aims per phase were as follows: (1) Developing an understanding of the problem through a needs assessment; (2)) Identifying performance objectives through concept mapping with stakeholders; (3) Identifying methods and strategies from a systematic review of the existing body of literature; (4) Developing a

programme based on findings from previous phases, and (5) Evaluating the feasibility of the designed programme through a Delphi study with experts in youth development. This executive summary aims to provide an integrated overview of the different phases and the challenges that occurred in each phase of the study. The chapter concludes with the contribution that the study makes to the field of youth development, with recommendations for future studies, as well as the limitations of the study.

## **9.2 SUMMARY OF PHASES**

### **9.2.1 PHASE 1: UNDERSTANDING THE PROBLEM**

Phase one of the study aimed to understand the problem as it related to (a) the health risk behaviours that learners engage in, and (b) the extent to which learners manage their personal situations.



**9.2.1.1 Baseline engagement in Health Risk Behaviours:** Learners who participated in this survey showed an alarming degree of engagement in health risk behaviours compared to a survey conducted in South Africa in 2010 (Reddy et al. 2010). The results indicated that compared to a national engagement of 21% in smoking, the study population had an engagement of 64% in smoking. The use of marijuana nationally by youth was 10% compared to the study population's use of 24%. Fifty per cent of the study population also engaged in alcohol use compared to 35% of the national study. This rising level of engagement raises major concerns, as every effort is being made to educate everyone, especially the youth, on the harmful effects of health risk behaviours. This highlighted the need for an intervention that incorporates theories such as the Health Belief Model. The Health Belief Model

suggests that people's beliefs about health problems, perceived benefits of action versus barriers to action, and self-efficacy, explain engagement (or lack of engagement) in health-promoting behaviour. It was the belief of the researchers that the incorporation of the health belief as underlying theory for the designed programme would get the young people to understand the possible risk of engagement in the various behaviours. The Health Belief Model has four core dimensions that focus on the perceived susceptibility, severity, benefits and perceived barriers. In previous literature, the health belief model has received empirical support for predicting a wide range of health behaviours including exercise (Corwyn & Benda, 1999) and safe-sex behaviours (Bakker, Buunk, Siero, & Van den Eijden, 1997). In this design it was to be used for a multi-effect intervention. The intervention designed was guided by Baban and Craciun (2007), who stated that health professionals can optimise people's risk behaviour by ensuring that they are exposed to correct information about risk behaviours; develop a positive intention to use health behaviour; identify social and personal barriers to performing that behaviour; perceive themselves as having enough control over engaging in behaviour change; and have a positive effect on behaviour and its outcomes.

Other relevant theories include the Social Cognitive theory. In summary, this model posits that individuals go through a cognitive process weighing the pros and cons of practicing safer sex (e.g. considering knowledge about HIV, expectancies related to using condoms, and social norms) which influence an individual's self-efficacy (i.e. confidence in one's ability to practice safer-sex in difficult situations). This is important to consider as we would want the learners to make focused decisions about their health.

#### **9.2.1.2 Life skills and engagement in Health Risk Behaviour: Regression**

analyses indicated that life skills were important in reducing or preventing health risk behaviours among grade 8-10 learners. In particular, the combination of time management, social competence, achievement motivation, intellectual flexibility, task leadership, emotional control, active initiative and self-confidence significantly explained the variance in smoking, drug use, drinking, and sexual activity. The analysis showed that increased perceptions of effective emotional regulation under stress (emotional control) and increased personal confidence and perceived social efficacy (social competence) could significantly predict non-smoking behaviour and vice versa, which is consistent with literature. For example, social skills, among non-cognitive skills, were reported to explain a sizeable portion of the relationship between education and health (Cutler & Lleras-Muney, 2010). Carneiro, Crawford and Goodman (2007) reported that social skills at age 7-11 are strong predictors of risky behaviour during adolescence (i.e. smoking and pregnancy) and adult health outcomes (i.e. self-assessed health, depression and mental health problems). For boys, the combined effects of poor academic achievement, family dysfunction and low socioeconomic status are significant predictors of deviant peer affiliation and engagement with youth justice authorities (Fergusson 1999; Stephenson 2007). Increased capacity for active initiative-taking in new situations and increased motivation and effort to achieve, significantly predicts abstinence from drinking. Similarly, increased perceptions of effective emotional regulation under stress can significantly predict abstinence from alcohol. Time management emerged fairly consistently as a significant predictor across three regression models, suggesting that the extent to which a learner perceives that they must make optimal use of time should be highlighted in life orientation curricula or other school-based intervention

programmes. Physical activity was significantly predicted by the extent to which a learner likes to initiate action in new situations. That is to say, increased capacity for active initiative-taking in new situations and increased motivation and effort to be successful, significantly predicts increased physical activity. Such a finding is consistent with reports in the literature (Jarvie & Maguire, 1994; Sallis, Prochaska & Taylor, 2000). Life skills have been identified as being critical to young people's ability to positively adapt to and deal with the demands and challenges of life. A review by UNICEF found that approaches relying on life skills have been effective in educating youth about health-related issues – such as alcohol, tobacco, and other drug use; nutrition; pregnancy prevention; and preventing HIV/AIDS and other sexually transmitted infections (STIs) (UNICEF, 2000). According to Mangrulkar, Whitman and Posner (2001), it is important to understand that the level of life skills as a key aspect of human development is the acquisition of socio-cognitive and emotional coping skills. Thus inclusion of a life skill approach in a youth development programme is essential, as it can be used to build competencies among youth to make a healthy transition into adulthood and promote adoption of positive behaviours.

### **9.2.2 PHASE 2: Concept mapping**

Having an understanding of the problem that exists, it was important to explore why these problems exist. In particular, the perceptions of stakeholders were important to garner, since they affect the extent to which they buy-in to programming. The stakeholders included in this phase were learners, teachers and community representatives. This phase explored the views of stakeholders regarding the type of health risk behaviours learners engage in, and the possible reasons for engaging in

these health risk behaviours. Their contributions and perceptions were gained through focus groups and interviews that reflected the social microcosm and contextual influences that inform perceptions and attitudes. The methodology was participatory and provided opportunities for clarification of the processes and pathways by which stakeholders perceive factors that affect engagement in health risk behaviours. The results of this phase produced a composite concept map that highlighted peer pressure, the need to experiment, lack of communication in families and dysfunctional home or family environment as aspects that influence the engagement of youth in health risk behaviour.

**9.2.2.1 Peer pressure:** As early as the late 70s, peer pressure was identified as a normative process as the identification shifts from parental and other authority figures to the peer group (Berndt, 1979). Peer pressure plays an important role in influencing or determining behaviour amongst adolescents (Gibbons, Gerrard & Lane, 2003; Prinstein & Wang, 2005; ). The results here highlighted the negative impacts of peer pressure to promote engagement in health risk behaviours that is consistent with the literature (Brown, Bakken, Ameringer & Mahon, 2008; Cohen & Prinstein, 2006; Rose & Rudolph, 2006). Rose & Rudolph (2006) also reported that there are gender differences in the peer relational process. In general, the findings replicate the slanted focus on negative peer pressure, and do not address how peer pressure could be used as a positive influence to deter engagement in HRB and promote engagement in prosocial behaviour (Allen, Porter & McFarland, 2006; Prinstein, Brechwald & Cohen, 2011). It is also claimed that the research on peer pressure has not fully understood or explored individual susceptibility (Allen, Porter & McFarland, 2006). A smaller body of literature does report on peer pressure as

having the potential to have a positive influence (Lansford, Criss, Pettit, Dodge & Bates, 2003; Kistner, David & Repper, 2007; Criss, Pettit, Bates, Dodge & Lapp, 2002) Programming needed to identify the impact of peer pressure in both positive and negative directions, and also needed to address the need for sufficient life skills to combat the effects of excessive peer pressure and reduce individual susceptibility or increase resilience, with gender difference in mind.

**9.2.2.2 The need to experiment:** The results indicate that adolescents are predisposed to engage in risky or risk-taking behaviour as evidenced by their need to experiment and gain an experiential sense of particular health risk behaviours. This finding is consistent with literature where adolescents have been presented as almost 'hard-wired' for risk-taking behaviour ostensibly due to immature brain development (Campbell, 2014). Thus effective programming must take into account developmental processes and age-appropriateness of risk taking while providing means to moderate the impact of risk taking behaviour.

**9.2.2.3 Family context (Lack of communication and dysfunction):** The large focus on the family context and the link to engagement in health risk behaviours is important for the development of youth programmes. This link is important as children are socialised and shaped by both their parents and society's values and beliefs (Spera, 2005). The parent-child relationship is also linked to the child's development and well-being (Akinsola, 2011). A recent review by Davids and Roman (2014) indicates that the social environment often plays a role in the development of certain behaviours and habits, and the parental home and family environment is often that which children, adolescents and/or youth are often exposed to. Thus this

phase of the study was important in informing the design and content of the youth development programme as it highlighted additional aspects that needed to be considered when designing the programme.

**9.2.3 PHASE 3: Strategies and methods.** To develop an understanding of the strategies and methods that are characteristic of effective programmes, a systematic review was conducted to identify the evidence related to the content of school-based intervention programmes for preventing, delaying and reducing engagement in health risk behaviours among adolescents. This phase entailed the review of the current literature that focused on youth development programmes. From the systematic review it was found that interventions promoting active parental involvement such as at-home monitoring or assisted facilitation seem to have produced consistently positive results (Eisen et al., 2003; Soper et al., 2010; Spoth et al., 2008). Especially noticeable in this group was the potential for long-term maintenance of the intervention effects. In addition, the review highlighted that interventions that seemed to be the most effective were those that widened the scope and included other aspects such as life skills, sport, and parental education/involvement. Based on the meta-synthesis of findings from the systematic review, the recommendation was an initial short-term, multi-theory approach intervention, which would be more cost-effective and therefore could be implemented in more settings, followed by regular booster programmes throughout high schools, as well as regular and long-term follow ups to assess and keep track of the levels at which reduced health risk behaviours were maintained.



#### **9.2.4 PHASE 4: PROGRAMME DEVELOPMENT**

The programme was developed in two iterations: The first was presented to the experts in the Delphi process and a detailed description is included in Chapters 7 and 8. The second iteration included the revisions recommended by the Delphi process and is discussed in detail below under the headings: feasibility of the study (9.2.5); challenges to implementation (9.3) and revised youth development programme (9.4). For the purposes of this summary, the content of the programme at the end of Phase 4 will not be repeated.

#### **9.2.5 PHASE 5: FEASIBILITY OF THE RECOMMENDED PROGRAMME**

An important aspect of Intervention Mapping is that the feasibility of the designed programme must be established. This process resonated with the recommendation in literature that in the area of health promotion and disease prevention, there is a move towards establishing evidence or empirical support for implementing interventions that ultimately enhance efficacy (Bowen et al. 2009). These authors highlighted the importance of determining whether an intervention is appropriate and relevant as a facet of feasibility assessment.

The fourth phase was dedicated to a Delphi study that enlisted feedback from a panel of experts on youth development with the aim of exploring the acceptability, practicality and adaptability of the proposed programme. The Delphi method provided the opportunity for experts to communicate their opinions and knowledge about this complex problem of health risk behaviours among youth. The Delphi method allowed the participants to reach consensus on all aspects of the programme

without influence or bias of face-to-face consensus where such interactions may lead to the stronger voice influencing the decision-making process (Hasson, Keeney & McKenna, 2008). The response rate to our Delphi survey for both rounds was high (70%). Studies using the Delphi as a methodology have argued that rigour can be maintained with a response rate of 70%, which was reached in this study (Akins, Tolson & Cole, 2005; Hasson et al. 2008)

The findings from this phase showed that the proposed content was sufficient, with the cautionary note that knowledge is necessary, but not sufficient, for behavioural change. The scope of the programme was recommended to be revised in order to target vulnerable groups rather than a wider more inclusive target group. In addition, it was recommended that the programme be tailored separately to address the different grades, as there were thought to be significant cohort differences. A core recommendation was that when discussing engagement in health risk behaviours, it would be important to maintain greater specificity with regard to factors that might affect the decision. For example, patterns of engagement might emerge due to differences in gender and socio-economic status. Such differences, once empirically established, should be factored into the content and focus of the programme.

Similarly, extraneous factors that could moderate engagement in HRBs should also be considered once empirically established, such as existing relationships, family culture and health, religious beliefs and a sense of morality. The method of delivery was recommended to include a more experiential focus such as workshops and field trips rather than lectures. Important considerations included parental involvement; use of independent facilitators and peer mentoring, rather than teaching staff.

The feedback was incorporated and presented to the panel of experts in a second

round for comment. The Delphi process was initially conceptualised as having three rounds, but the extent of consensus reached made the third round redundant. The feedback from the panel primarily addressed the extent to which the programme would become contextually relevant. The importance of a youth development programme that is contextually relevant cannot be over-emphasised if effective implementation is to be attained. Wang, Moss and Hiller (2006) stress the importance of interventions that are applicable, transferable and effective. The authors further emphasise that various external and internal contextual factors exist that may impact the effectiveness of an intervention. These factors may include the epidemiological situation, the capacity to implement the intervention (including resource availability, the skills of local people, organisational factors, and the social and political environment), and the characteristics of the target population (including cultural practices and the level of literacy). Contextual relevance of the proposed programme was increased by methodological elements such as needs assessment and concept mapping with stakeholders including end-users or intended recipients of the programme. This was consistent with (Morawska, Sanders, O'Brien, McAulliffe, Pope & Anderson (2012) who highlighted the importance of involving the end users directly, rather than only focusing on professionals

The feedback generated in the Delphi process was related to both content and structure. The content-related feedback was limited and easily incorporated. The feedback related to structure had conceptual implications since they reflected important epistemological elements. The incorporation of this feedback meant that the programme had to be restructured in such a way that it presented a number of challenges or obstacles to implementation.

### **9.3 CHALLENGES TO IMPLEMENTATION**

The successful implementation of youth development programmes requires strong local leadership and the creation of an organisational climate that embraces the intervention. In addition, as the requirement to show programme effectiveness becomes increasingly more routine, the inclusion of evidence on effectiveness will be needed to be a part of all programmes and will be particularly required in areas in which little is known about effective intervention strategies (Jaycox et al. 2006). In determining the applicability and feasibility of the designed intervention, various challenges were raised that prohibited implementation as initially proposed for the purposes of this study. The challenges raised are discussed below, and a revised youth development programme is presented as the final outcome.

#### **9.3.1 Skills of facilitators**

Through the Delphi study experts indicated that the vetting and skills of facilitators are important aspects to be considered when attempting to design youth development programmes. The challenges that the youth face are diverse, and facilitators need to be multi-skilled to be able to meet these challenges. Facilitators need to be able to be an educator on the one hand, mentor on the other, be able to inspire, create trust, be parent-like, and yet respect the boundaries of what this relationship between facilitator and participant brings, and to be therapeutic and containing. Being a 'good' educator, helper or animator of community learning and development involves rather more than technique in that it flows from our identity and integrity (Palmer & Parker, 2000: 11). Knowing, and bearing in mind, the responsibilities that go along with our role when facilitating, is of utmost importance. Evans (2007) maintains that facilitators must know what is expected of them, what

the limits are, and what supports are available. This author also says that facilitators must be clear with themselves about what they can offer in terms of their time, knowledge, skills and feelings. Thus the proposed programme cannot be complete or implementable until there is a clear idea of the level of skill and type of skill set required in the facilitator. In addition to clarifying these two factors, the programme must provide for an instructional element, such as a training manual, to assist and guide facilitators through mastery of the content, preparation for implementation, and delivery of training. Depending on the nature of this manual and facilitator's guide, training might also be required. The feedback from the Delphi process was clear that highly skilled facilitators are required. Thus the proposed programme will need to develop a set of training resources and provide accredited training before implementation can take place.



### **9.3.2 Power relationships between teacher and student**

A very important aspect that emerged is the power relationship between learner and teacher. Research has identified several key pedagogical themes which are present when students' learning power is strengthened (Crick, 2007). The first element involves the core vision and values of the school. Teachers must be committed to learning-centred values and must be willing to risk making their own professional judgments rather than having those totally dictated by externally imposed authorities and priorities. The second element that strengthens learning power is the relationship between student and teacher, which is strengthened when characterised by trust and affirmation, as well as challenge. Bond (2004) defines trust as a relationship where both parties are confident that they can withstand the challenges of inequality, risk, uncertainty and difference. Thus it emerges that teaching the

school curriculum and teaching the programme curriculum might create conflicts of interest, and diffuse the reporting lines for teachers. It is important to note that the nature of the content of the programme requires learners to make themselves vulnerable to some extent, and teachers who are in a dual relationship (teacher and facilitator) might not be able to facilitate trust optimally for that kind of vulnerability. Mandated reporting of engagement in HRBs, especially on the school premises, might inhibit sharing and disclosure, placing both learners and facilitator-teachers in a difficult position. The programme ideally should be presented by independent facilitators. Before implementation can take place, it is imperative for the programme developer to engage with the criteria and process for selecting suitable facilitators, as well as the quality assurance processes needed to monitor implementation.

### **9.3.3 Structural changes adopted**

A core structural change that emerged in this study is development of a facilitators' training course in order for standardisation of the competencies needed by facilitators to implement the designed youth development programme. In so doing, quality assurance and the vetting of facilitators can become part and parcel of the programme. Facilitation in the programme can only take place through the assistance of facilitators who have gone through the accredited training certification course. The programme developer must adopt this recommendation. The development of resource material and training manuals in the context of accredited training was beyond the scope of the study in fulfilment of the requirements of the doctoral degree. This will become a recommendation for future research in post-doctoral work.

A second structural change to the designed programme is the scaffolding of the programme. The programme will no longer focus on an intervention for all learners from grades 8-10, aged 13-18 years and both genders, but will be presented in a differentiated manner that treats every grade as a separate cohort. Similarly, the empirical evidence for a gendered pattern to engagement necessitates the differentiation of certain content areas to address split-gender audiences. The content will thus be presented in different iterations that can build on what was learnt in previous rounds. The development of a tiered or staged programme across three grades with gender-specific foci and delivery, was beyond the scope of the study in fulfilment of the requirements for the doctoral degree in Physiotherapy. Thus the monograph or thesis will only present the proposed programme for the intake cohort at grade 8 level, with age and gender-specific considerations in homogeneous (male and female) groups and mixed-gender groups. The differentiated and tailored emphasis will be informed by what has been established as the current need and challenges, rather than on generic input.

#### **9.4 REVISED YOUTH DEVELOPMENT PROGRAMME**

Throughout the study the various phases informed and guided the development of the programme. In Chapter 7 a draft of the programme and its structure was developed. During Chapter 8, experts commented on the design and based their expert opinion adaptations to the programme. Below, a narrative of the new programme is given, as well as the programme design.

The programme will be run over a period of 12 weeks and will focus on the following 4 areas: Knowledge Development, Life skills development, Leadership Development, and Relationship Development. Each of these areas will be covered over a period of 3 weeks. The initial programme plan was to incorporate learners from all grades. However, based on the results and input from experts and other stakeholders the programme will make use of a staggered approach. Thus it will start with grade 8 learners; topics will be covered in such a manner that a gender (male, female and mix groups) or age-related focus can take place.

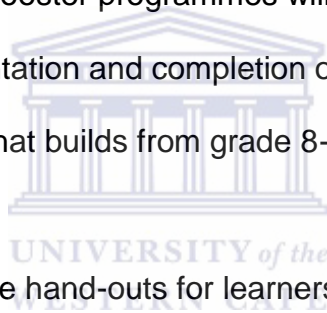
In addition, peer mentorship will form part of the programme, and for that purpose peers from higher grades will be selected to complete a peer mentorship programme prior to the commencement of the youth development programme. Mentoring has the potential to constitute a set of relations between youth and their social world that enhances their life skills, thus providing opportunities for their making valued contributions to self and society. The role of the peer mentors can be important in supporting the transition of younger learners from primary school to secondary school. They may also assist mentees with their schoolwork and study skills, and dealing with issues such as peer pressure related to health risk behaviour. In addition, peer mentors from similar backgrounds can assist the mentees with coping strategies. In this programme, although we will use a 'cross-age' mentoring process where there may be an age gap between the mentor and the mentee, this will still be considered as peer mentoring as it is youth-to-youth relationships.

The skills of facilitators was another area that raised comments and concerns and thus a facilitators programme will be run in conjunction with the peer mentorship programme in order to prepare facilitators for their role in the designed programme. It



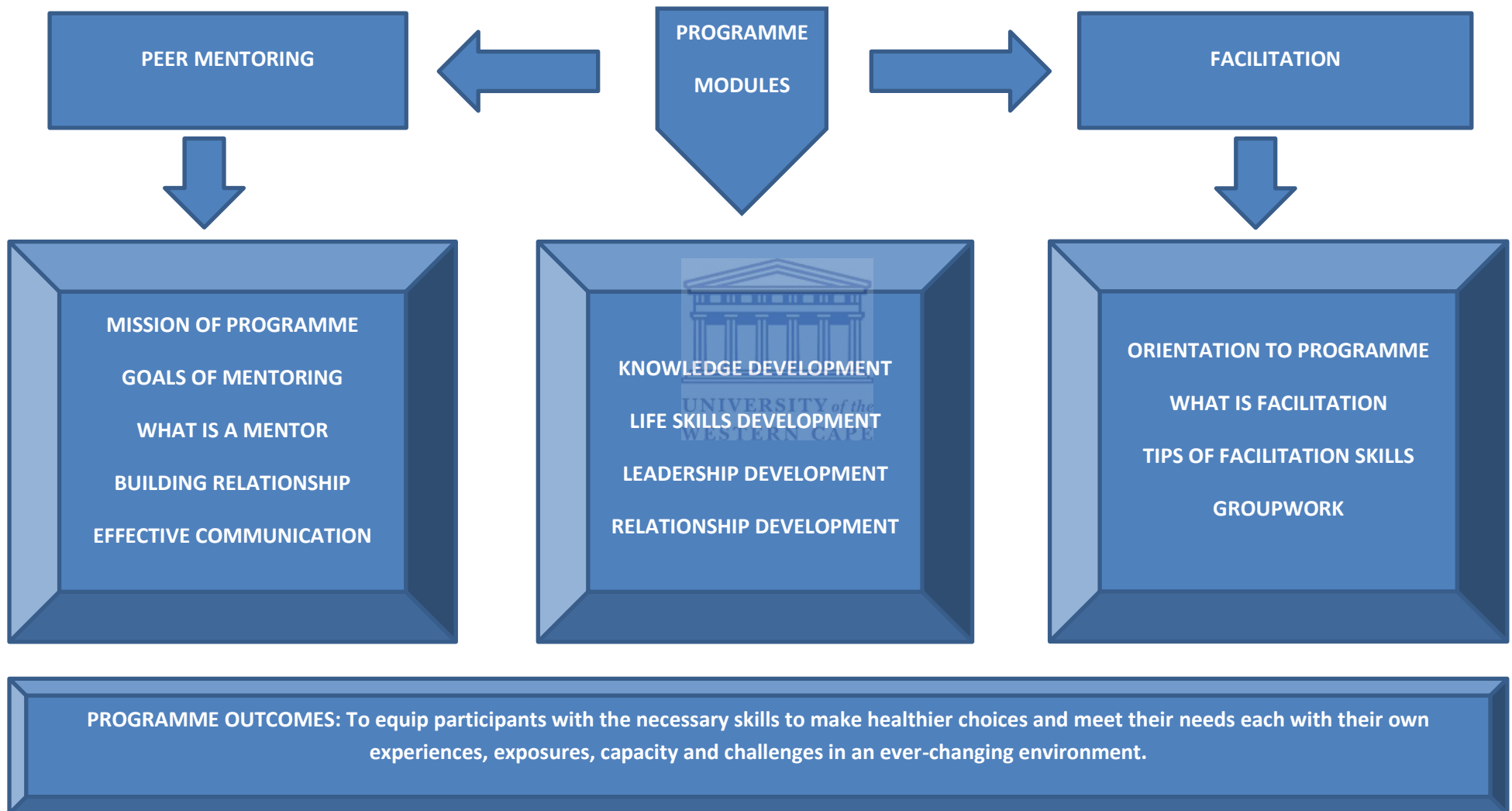
is important to understand the role of the facilitator and to share this vision in the facilitators' programme. The feedback from stakeholders was that there needed to be a clear shift from lectures to facilitation, so it was clear that the traditional pedagogical teaching approach needed to be avoided. Facilitators needed to understand that as far as a facilitator is concerned, the onus is on the participants to become involved in their own learning.

The structure of the programme was also changed. The programme will at its inception be run as a school-based programme but will be flexible to expand to an after-school run programme. Booster programmes will be planned based on the outcomes of the first implementation and completion of the programme as it will need to develop into a programme that builds from grade 8-10.



The programme will incorporate hand-outs for learners, facilitators and peer-mentors that will act as support and guidance throughout the programme. Excursions will form an integral part of the programme, as exposure to the consequences of health risk behaviour was an important aspect raised by all the stakeholders. The use of social media will play an important role as it has been described as a communication medium for learners, and the use of it to assist communication will be taken very seriously. Graphic illustration of the revised programmes is presented in figure 9.1 below.

**Figure 9.1:**                      **Developing Youth 4 Paarl (DY4P)**



## 9.5 CONCLUSION

This chapter has described the final outcomes of this study, beginning with the major contributions that the study makes to understanding the problem. It then explains the importance of determining the feasibility of the designed programme and the strategies used to determine the feasibility. While the programme was not implemented as initially anticipated, the study indicates lessons learnt for programme designers and makes a valuable contribution to the body of knowledge focusing on youth development intervention design. Finally, the limitations of the study are considered and recommendations regarding the thesis and its findings are offered.

## 9.6 RECOMMENDATIONS

The major recommendations to emerge from this study are presented according to each phase of the study:

### 9.6.1 Understanding the problem

- Interventions are needed that address age-specific interventions that incorporate context;
- Timing of the intervention is of utmost importance as approximately 10% of the adolescents are sexually active from the age 11 years. Thus youth development interventions aimed at youth risk behaviour should start at primary school level.
- Longitudinal research studies are needed to explore the impact of interventions that aim to address health risk behaviours among youth



### **9.6.2 Intervention design**

- In designing interventions the views of stakeholders are important, and one recommendation is that in designing the peer mentoring training programme and the facilitator training programme, the key stakeholders are consulted.
- A monitoring and evaluation plan needs to be co-designed with the final programme in order to ensure its success.

### **9.6.3 Intervention implementation**

- Stakeholder buy-in is a key aspect of the feasibility and sustainability of a programme, and the researcher needs to ensure this prior to implementation.
- Process evaluation of the implementation phase needs to be planned for.

## **9.7 LIMITATIONS OF THE STUDY**

The limitations of this study as a whole are presented first, followed by the limitations of each phase of the study. An important limitation of this thesis is that it presents only the first of several iterations of the programme implementation and design. As a result of the complex nature of evidence-based intervention design, only the first full draft of the youth development programme is presented, and it would need to be tested practically. It would be important that the reader realise that the intervention has only been tested for feasibility and applicability in one context, and should be adapted for other contexts.

Having identified the limitations of the overall study, the following are the limitations of each of the contributing phases of the study. The needs assessment conducted in Chapter 4 used only non-parametric statistics because of frequency data. In Chapter 6, the systematic review had its limitations in terms of the criteria used as it relates to

publication and language bias.

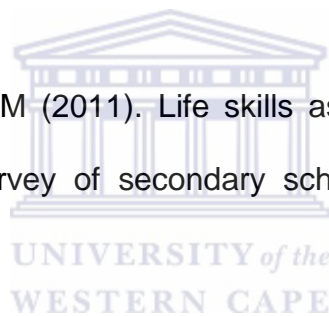
## **9.8 DISSEMINATION (PUBLICATION AND PRESENTATION)**

The findings of the study have been disseminated in part in the format of articles in accredited peer-reviewed journals and conference presentations. Below is a citation list of the publications and presentations to date.

### **9.8.1 Publications**

**Pharaoh H**, Frantz J, Smith M (2014). Concept Mapping: Stakeholders` perception about what should be included in intervention programmes aimed at reducing engagement in health risk behaviour among youth. *AJPHERD*: 304-318

**Pharaoh H**, Frantz J, Smith M (2011). Life skills as predictors of engagement in health risk behaviours: A survey of secondary school learners. *AJPHERD* June (Supplement): 70-81



### **9.8.2 Presentations**

**Pharaoh H**, Frantz J, Smith M. Life skills as predictors of engagement in health risk behaviors: A survey of secondary school learners. *AFRINEAD*, Zimbabwe, November 2011

**Pharaoh H**, Frantz J, Smith M. Concept Mapping: Stakeholders` perception about what should be included in intervention programmes aimed at reducing engagement in health risk behaviour among youth. Community and Health Sciences Research Day, University of the Western Cape, September 2013.

## REFERENCES:

Adlaf, E. M. & Paglia, A. (2003). Drug Use Among Ontario Students 1977-2003: Ontario Student Drug Use Survey (OSDUS) Highlights. Toronto: Centre for Addiction and Mental Health.

Adler, M. & Ziglio, E. (1996). Gazing Into the Oracle: The Delphi Method and its Implications to Social Policy and Public Health. Jessica Kingsley Publishers

Agius, P.A., Pitts, M.K., Smith, A.M. & Mitchell, A. (2010). Human papillomavirus and cervical cancer: Gardasil vaccination status and knowledge amongst a nationally representative sample of Australian secondary school students. *Vaccine*, 28, 4416-22

Ajzen, I. (1985). From intentions to actions: A theory of planned behavior. In: Kuhl, J. and Beckmann, J., Editors, 1985. *Action-control: From cognition to behavior*, Springer, Heidelberg, pp. 11–39.

Akins, R., Tolson, H. & Cole, B. (2005). Stability of response characteristics of a Delphi panel: application of bootstrap data expansion. *BMC Med Res Methodol* 5:37.

Akinsola, E.F. (2011). Relationship between parenting style, family type, personality dispositions and academic achievement of young people in Nigeria. *IFE Psychologia*, 19(2), 246-267.

Allen A., Dávila J. & Hofmann P. (2006) *Governance of Water and Sanitation Services for the Peri-urban Poor A Framework for Understanding and Action in Metropolitan Regions*. ISBN 1 874502 60 9

Allen, J.P., Porter, M.R. & McFarland F.C. (2006). Leaders and followers in adolescent close friendships: Susceptibility to peer influence as a predictor of risky behavior, friendship instability, and depression. *Development and Psychopathology*. ;18:155–172. doi: 10.1017/S0954579406060093. [PMC free article] [PubMed]

Anderson, P., De Bruijn, A. & Angus, K. (2009). Impact of alcohol advertising and media exposure on adolescent alcohol use: a systematic review of longitudinal studies. *Alcohol Alcohol* 2009;44:229 –43.

Arnett, J. J. (1999). Adolescent storm and stress, reconsidered. *American Psychologist*, 54, 317–326.

Arthur, M., Hawkins, J., Pollard, J., Catalano, R. & Baglioni, A. (2002). Measuring risk and protective factors for substance use, delinquency, and other adolescent problem behaviors. *Eval Rev*. 26(6):575–560. [PubMed]

Asiimwe-Okiror, G., Opio, A.A. & Musinguzi, J. (1997). Change in sexual behaviour and decline in HIV infectious among young pregnant women in urban Uganda. *AIDS*, 11: 1757-1763.

BĂBAN, A. & CRĂCIUN, C. (2007). Changing health-risk behaviors: a review of theory and evidence-based interventions in health psychology. *Journal of evidence based psychotherapies*. Vol VII, No. 1.

Babbie, E & Mouton, J. (2001). *The practice of social research*. Cape Town: Oxford University Press

Babbie, E. (2009). *The Practice of Social Research*. Florence, KY: Cengage Learning/wadsworth Publishing

Babbie, E. R. (2007). *The basics of social research* (12th ed.). Belmont, CA: Thomson & Wadsworth.

Babbie, E. (1990). *Survey Research Methods*. Belmont, California: Wadsworth Publishing Company, 2nd ed.

Bakker, A.B., Buunk, B.P., Siero, F.W., & Van den Eijden, R.J.J.M. (1997). Application of a modified health belief model to HIV preventive behavioral intentions among gay and bisexual men. *Psychology and Health*, 4, 481-92.

Bandura, A. (1994). Social cognitive theory of mass communication. In J. Bryant & D. Zillman (Eds.), *Media effects: Advances in theory and research* (pp. 61-90). Hillsdale, NJ: Erlbaum.

Bandura, A. (2011). The Social and Policy Impact of Social Cognitive Theory. In M. Mark, S. Donaldson, & B. Campbell (Eds.), *Social Psychology and Evaluation*. (pp. 33-70). New York, NY: Guilford Press.

Bartholomew K., Parcel G., Kok G. S., Gottlieb N. *Intervention Mapping: Designing Theory- and Evidence-Based Health Promotion Programs*. Mountain View, CA: Mayfield; 2001.

Bartholomew, L.K., Parcel, G.S. & Kok, G. (1998). Intervention Mapping: a process for designing theory- and evidence-based health education programs. *Health Education & Behavior*, 25, 545-563.

Begley, K., Haddad, A.R., Christensen, C. & Lust, E. (2009). Health education program for underserved community youth led by health professions students. *American Journal of Pharmaceutical Education*, 73(6), 98.

Benson, P. L. (1997) *All kids are our kids: what communities must do to raise caring and responsible children and adolescents* (San Francisco, CA, Jossey-Bass).

Benson, P.L., Leffert, N., Scales, P.C. & Blyth, D.A. (1998). Beyond the “village” thetic: Creating healthy communities for children and adolescents. *Applied Developmental Science*, 2, 138-159.



Berndt T.J. Developmental changes in conformity to peers and parents. *Developmental Psychology*.1979;15:608–616. doi: 10.1037/0012-1649.15.6.608.

Bless, C., Higson-Smith, C., & Sithole, S. L. (2006). *Fundamentals of Social Research Methods: An African Perspective* (4th ed., ch. 2). South Africa: Juta & Company Ltd.

Blum RW, Nelson-Mmari K. The health of young people in a global context. *Journal of Adolescent Health*. 2004;35:402–418. [PubMed]

Bond, T. 2004. *Ethical guidelines for researching counselling and psychotherapy*. Rugby, UK: British Association for Counselling and Psychotherapy.

Botvin, G. J., Griffin, K. W., and Nichols, T. R. (2006). Preventing youth violence and delinquency through a universal school-based prevention approach. *Prevention Science*, 7, 403-408.

Bowen, S.W., Chawla, N. & Collins, S.E. (2009). Mindfulness-based relapse prevention for substance use disorders: A pilot efficacy trial. *Substance Abuse* 30(4):295–305, PMID: 19904665.

Boxer, P., Musher-Eizenman, D.R., Dubow, E.F., Heretick, D.M.L & Danner, S.A. (2006). Assessing teachers' perceptions for school-based aggression prevention programs: Applying a cognitive-ecological framework. *Psychology in the Schools*. 43:331–344.

Brener, N.D. & Collins, J.L. ( 1998). Co-occurrence of health-risk behaviors among adolescents in the United States. *J Adolesc Health*. 22:209–13. [PubMed]

Brener, N.D., Kann, L., McManus, T.L., Kinchen, S., Sundberg, E.C., & Ross, J.G. (2002). Reliability of the 1999 Youth Risk Behavior Survey Questionnaire. *Journal of Adolescent Health*, 31, 336–342. Retrieved on May 1, 2010 from <http://www.cdc.gov/HealthyYouth/yrbs/pdf/reliability.pdf>. doi:10.1016/S1054-

Brooks, F., Magnusson, J. & Klemner, E. (2011). Health Behaviour in School-aged Children (HBSC). England National Report 2010. Hatfield: University of Hertfordshire, 2011

Brooks, K. W. (1979). Delphi technique: Expanding applications. *North Central Association Quarterly*, 53, 377-385.

Brown, B.B., Bakken, J.P., Ameringer, S.W. & Mahon, S.D. (2008). A comprehensive conceptualization of the peer influence process in adolescence.

Brug, J. & Wepp, K. (2007). Children and adolescents. In Lawrence M, Worsely T. (eds). *Public health nutrition from principle to practice*. McGraw Hill, New York, USA, pp 100-126.

Burke, M. & Duncan, M. (2013). Recruitment and Retention of Children in Behavioral Health Risk Factor Studies: REACH Strategies. *Int.J. Behav. Med.* (2014) 21:794–803 DOI 10.1007/s12529-013-9347-5

Burlew, A.K., Johnson, C.S., Flowers, A. M., Peteet, B.J., Griffith-Henry, K. D. & Buchanan, N.D. (2009). Neighborhood Risk, Parental Supervision and the Onset of Substance Use among African American Adolescents. *Journal of Child and Family Studies*, 18 (6), 680-689.

Cameron, M. & MacDougall, C. (2000). Crime Prevention Through Sport and Physical Activity. *Trends and Issues in Crime and Criminal Justice*, No. 165. September, 2000. Australian Institute of Criminology. <http://www.aic.gov.au> Accessed 20 August, 2004.

Campbell, J. (2014). Have you ever wondered why we do the things we do? In *Youth taking risk. Is it all in our heads? Centres of excellence for children's well-being/ Youth engagement*.

Carley-Baxter, L.R., Hill, C.A., Roe, D.J., Twiddy, S.E., Baxter, R.K. & Ruppenkamp, J. (2009). Does Response Rate Matter? Journal Editors Use of Survey Quality Measures in Manuscript Publication Decisions. *Survey Practice*. 2009 November.

Available at: <http://surveypractice.org/2009/10/17/editors-decisions/>

Carneiro P., Crawford, C. and A. Goodman (2007), —Impact of early cognitive and non-cognitive skills on later outcomes, Centre for the Economics of Education Working Paper.

Carlsen, B. & Glenton, C. (2011). What about N? A methodological study of sample-size reporting in focus group studies. BMC Medical Research Methodology 11:26.

CDC, National Center for Health Statistics. 1992.

[http://www.cdc.gov/nchs/nhis/nhis\\_ad.htm](http://www.cdc.gov/nchs/nhis/nhis_ad.htm)

Centers for Disease Control and Prevention. HIV Surveillance Report, 2009; vol. 21.

Cochrane Collaboration 2013. <http://www.cochrane.org/about-us/evidence-based-health-care>

Cohen, G.L. & Prinstein, M.J. (2006). Peer contagion of aggression and health-risk behavior among adolescent males: An experimental investigation of effects on public conduct and private attitudes. Child Development. 77:967–983. doi: 10.1111/j.1467-8624.2006.00913.x

Corwyn, R.F., & Benda, B.B. (1999). Examination of an integrated theoretical model of exercise behavior. American Journal of Health Behavior, 5, 381-92.

Cote, F., Godin, G. & Gagne, C. (2006). "Efficiency of an evidence-based intervention to promote and reinforce tobacco abstinence among elementary schoolchildren in a school transition period." Health Educ Behav 33(6): 747-59.

Craig, R. & Hirani, V. (2010). Health Survey for England—2009: Health and Lifestyles. London: National Centre for Social Research, 2010.

Creswell, J. W., Clark, V. L. P., Gutmann, M. L., & Hanson, W. E. (2003). Advanced mixed methods research designs. In A. Tashakkori & C. Teddlie (Eds.), *Handbook of mixed methods in social & behavioral research* (pp. 209-240). Thousand Oaks, CA: Sage.

Crick, D. (2007). Learning how to learn: The dynamic assessment of learning power. *Curriculum Journal* 18, no. 2:135-153

Criss, M.M., Pettit, G.S., Bates, J.E., Dodge, K.A. & Lapp, A.L. (2002). Family Adversity, Positive Peer Relationships, and Children's Externalizing Behavior: A Longitudinal Perspective on Risk and Resilience. *Child Development*, 73 (4), p. 1220–1237

Cummings, M. E., Goeke-Morey, M. C., & Papp, L. M. (2003). Children's responses to everyday marital conflict tactics in the home. *Child Development*, 74, 1918-1929.

Cutler & Lleras-Muney (2010). Data source: National Survey of Midlife Development 1995-96 (United States); National Child Development Study 1999-2000 (Wave 6).

Daley, B. J. (2001). Learning and professional practice: A study of four professions. *Adult Education Quarterly*, 52(1), 39-54.

Dalkey, N. C. (1969). An experimental study of group opinion. *Futures*, 1 (5), 408-426.

Dalkey, N. C., & Helmer, O. (1962). An experimental application of the Delphi method to the use of experts (Abridged, Report No. RM-727-PR). Santa Monica, CA: The RAND Corporation.

Dyal, W. W. (1995). "Ten Organizational Practices of Public Health: A Historical Perspective." *American Journal of Preventive Medicine*, 11(6), Suppl 2, 6–8.

Davids, E.L. & Roman, N.V., (2014). A systematic review of the relationship between parenting styles and children's physical activity. *African Journal for physical, health*

education, recreation and dance (AJPHERD). October, Supplement (2:1), 2014, ISSN 1117 4315.

Deutskens, E., de Ruyter, K., Wetzels, M., & Oosterveld, P. (2004). Response rate and response quality of internet-based surveys: An experimental study. *Marketing Letters*, 15(1), 21–36. (DOI: 10.1023/B:MARK.0000021968.86465.00)

Dhawan, S. (2014). In-Service Training of Teachers is not Valuable in Imparting Knowledge in Life Skills and Action Research. *International Journal of Management and Social Sciences Research (IJMSSR)* ISSN: 2319-4421 Volume 3, No. 1, January 2014

DiClemente, R., Hansen, W., & Ponton, L. (1996). Adolescents at risk: A generation in jeopardy. *Handbook of adolescent health risk behavior* (pp. 1-4). New York: Plenum Press

Downing, J.E. & MacFarland, S. (2010). Severe Disabilities (Education and Individuals with Severe Disabilities: Promising Practices). In: JH Stone, M Blouin, editors. *International Encyclopedia of Rehabilitation*. Available online: <http://cirrie.buffalo.edu/encyclopedia/en/article/114/>

Driskell, M.M., Dymont, S., Mauriello, L., Castle, P. & Sherman, K. (2008). Relationships among multiple behaviors for childhood and adolescent obesity prevention. *Preventative Medicine*, 46, 209-215.

Duit, R., Treagust, D. F. & Mansfield, H. (1996). Investigating student understanding as a prerequisite to improving teaching and learning in science and mathematics. In Treagust, D.F., Duit, R. & Fraser, B.J. (1996). *Teaching and learning of science and mathematics* (pp. 17-31). New York: Teachers College Press.

Durlak, J. A., Weissberg, R. P. & Pachan, M. (2010). A meta-analysis of after-school programs that seek to promote personal and social skills in children and adolescents. *American Journal of Community Psychology*, 45, 294–309.

Eisen, M.; Zellman, G.L.; and Murray, D.M. Evaluating the Lions-Quest "Skills for Adolescence" drug education program: Second-year behavior outcomes. *Addict Behav* 28(5):883-897, 2003.

Engelbrecht, A., Mintzes, J., Brown, L. & Kelso, P. (2005). Probing Understanding in Physical Geology Using Concept Maps and Clinical Interviews. *Journal of Geoscience Education*, 53, 263-270.

Estrada-Martinez, L. M., Caldwell, C. H., Schulz, A. J., Diez-Roux, A. V., & Pedraza, S. (2011). Families, neighborhood socio-demographic factors, and violent behaviors among white, and black adolescents. *Youth and Society*, 45(2), 221-242. DOI: 10.1177/0044118X11411933.

Evans, Gail (2007) *Counselling Skills for Dummies*. Chichester: John Wiley.

Faggiano, F., Vigna-Taglianti, F.D., Versino, E., Zambon, A., Borraccino, A. & Lemma, P. (2008). School-based prevention for illicit drugs use: a systematic review. *Prev. Med.* 46:385–96

Falzarano, M. & Zipp, G.P. (2013). Seeking Consensus Through the Use of the Delphi Technique in Health Sciences. *J Allied Health* 2013; 42(2):99–105.

Family Health International (2006). *Assessment of Youth Reproductive Health and HIV Programs in Kenya*. Nairobi, Kenya.

Fergusson, D. M., & Horwood, L. J. (1999). Prospective childhood predictors of deviant peer affiliations in adolescence. *Journal of Child Psychology & Psychiatry*, 40, 581-92.

Fincham, J.E. (2008). Response rates and responsiveness for surveys, standards, and the Journal. *Am J Pharm Educ.* 72 Article 43. [PMC free article] [PubMed]

Fishbein, M. & Ajzen, I., 1975. *Belief, attitude, intention, and behavior: An introduction to theory and research.* , Addison-Wesley, Reading, MA.

Flay, B. R. (2002). "Positive youth development requires comprehensive health promotion programs." *American Journal of Health Behavior* 26(6): 407-424.

Fowler, F.J. (2009). *Survey Research Methods*. 4th ed. Thousand Oaks, CA: Sage Publications.

Foxcroft, C. & Roodt, G. (2013). *Reliability: Basic concepts and measures. Psychological Assessment in the South African context* (ch. 4 & 5). Cape Town: Oxford Press.

Frantz, J. (2007). Challenges facing physiotherapy education in Africa. *The Internet Journal of Allied Health Sciences and Practice*, 5(4). Retrieved 23 January, 2008 from <http://ijahsp.nova.edu/articles/vol5num4/Frantz.htm>

Frantz, J.M. (2006). Physical inactivity as one of the chronic disease risk factors among high school learners in public schools in a local community in South Africa. *South African Journal for Research in Sport, Physical Education and Recreation*, 28(2): 73-80

Frantz, J.M., (2011). The impact of a school-based health education programme on knowledge regarding risk factors for chronic diseases of lifestyle: A pilot study *African Journal for Physical, Health Education, Recreation and Dance (AJPHERD)* June 2011 (Supplement), pp. 61-69.

Fraser-Thomas, J., Côté, J., & Deakin, J. (2005). Youth sport programs: An avenue to foster positive youth development. *Physical Education and Sport Pedagogy*, 10, 19-40.

French, S.D., Green, S.E, O'Connor, D.A., McKenzie, J.E., Francis, J.J., Michie, S., Buchbinder, R., Schattner, P., Spike, N. & Grimshaw, J.M. (2012). Developing theory-informed behaviour change interventions to implement evidence into practice: a systematic approach using the Theoretical Domains Framework. *Implement Sci.*



2012 Apr 24;7:38. doi: 10.1186/1748-5908-7-38.

Fuller, E. (2009). NHS Information Centre. Smoking, drinking and drug use among young people in England. London: National Centre for Social Research.

Galambos, N. L. & Tilton-Weaver. L .C. (1998). Multiple-risk behavior in adolescents and young adults. *Health Rep.* 109–20.20 [PubMed]

Gibbons, F.X., Gerrard, M. & Lane, D.J. (2003). A social reaction model of adolescent health risk. In: Suls JM, Wallston K, editors. *Social psychological foundations of health and illness*. Oxford, UK: Blackwell; pp. 107–136.

Gittler, J., Quigley-Rick, M. & Saks, M.J. (1990). Adolescent health care decision making: the law and public policy, Carnegie Council on Adolescent Development, Washington, DC.

Goodman, E., Adler, N., Daniels, S., Morrison, J., Slap, G. and Dolan, L. (2003), “Impact of objective and subjective social status on obesity in a biracial cohort of adolescents”, *Obesity Research* 11, 8, pp.1018–26.

Goodwin, R.D. (2003). Association between physical activity and mental disorders among adults in the United States. Department of Epidemiology, Mailman School of Public Health, Columbia University, New York, NY, USA

Gordon, J. (2002). Beyond Knowledge: Guidelines for Effective Health Promotion Messages. *Journal of Extension* . December 2002 // Volume 40 // Number 6 // Feature Articles // 6FEA7

Gravetter, F.J. & Wallnau, L.B. (2000). *Statistics for the behavioral sciences*. 5th ed. Belmont: Wadsworth – Thomson Learning.

Green, A.J., Bazata, D. D., Fox, K. M. & Grandy, S. (2007) Health-related behaviours of people with diabetes and those with cardiometabolic risk factors: results from SHIELD. *International Journal of Clinical Practice*. November, 61, 11, 1791–1797



Greene, J.C. & Caracelli, V.J.(1997). Advances in mixed-method evaluation: the challenges and benefits of integrating diverse paradigms: new directions for evaluations, no. 74. San Francisco: Jossey-Bass.

Greenhow, C. & Robelia, B. (2009). Old Communication, New Literacies: Social Network Sites as Social Learning Resources. *Journal of Computer-Mediated Communication* 14 (2009) 1130–1161 © 2009 International Communication Association

Griffin, K. W. (2003). Contemporary School-Based Prevention Approaches and the Perceived Risks and Benefits of Substance Abuse. In D. Romer (Ed.), *Reducing adolescent risk: Toward an integrated approach* (pp. 93-98). London: SAGE Publications.

Grunbaum, J., Kann, L. & Kinchen, S.A. (2001). Youth risk behavior surveillance- United States, 2001. *J Sch Health* 2002;72:313-28.

Guerra, N.G., & Bradshaw, C.P. (2008). Linking the prevention of problem behaviours and positive youth development : Core competencies for positive youth development and risk prevention. *New Directions for child and Adolescent development*, 122, 1-17

Guetzkow, J. (2002). *How the arts impacts communities*. NJ: Princeton University Center for Arts and Cultural Policy Studies.

Guttman Institute (2007). *Guttman Policy Review*. Summer 2007, Volume 10, Number 3.

Hale, D., Fitzgerald-Yau, N. & Viner, R.M. (2014). A Systematic Review of Effective Interventions for Reducing Multiple Health Risk Behaviors in Adolescence. *American Journal of Public Health*: May Vol. 104, No. 5, pp. e19-e41. doi: 10.2105/AJPH.2014.301874

Hall Jamieson, K., & Romer, D. (2003). Findings and future directions. In D. Romer (Ed.), *Reducing adolescent risk: Toward an integrated approach* (pp. 374-378). London: SAGE Publications.

Hannes K. Chapter 4: Critical appraisal of qualitative research. In: Noyes J, Booth A, Hannes K, Harden A, Harris J, Lewin S, Lockwood C (editors), *Supplementary Guidance for Inclusion of Qualitative Research in Cochrane Systematic Reviews of Interventions*. Version 1 (updated August 2011). Cochrane Collaboration Qualitative Methods Group, 2011. Available from URL <http://cqrmg.cochrane.org/supplemental-handbook-guidance>

Harrison, A., Smit, J.A. & Myer, L. (2000). Prevention of HIV and AIDS in South Africa a review of behaviour change interventions, evidence and options for the future. *South African Journal of Science*, 96, 285-290.

Hasson, F., Keeney, S. & McKenna, H. (2008). Research guidelines for the Delphi survey technique. *J Adv Nurs* 32(4):1008–1015.

Hasson, F., Keeney, S. & McKenna, H. (2000) Research guidelines for the Delphi survey technique. *Journal of Advanced Nursing* 32, 1008–1015

Hawkins, J.D., Catalano, R.F. & Arthur, M.W. (2002). Promoting science-based prevention in communities. *Addictive Behaviors*. 27:951–976. [PubMed].

Hawkins, J. D., Catalano, R. F., & Miller, J. Y. (1992). Risk and protective factors for alcohol and other drug problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin*, 112, 64–105

Hazen, E., Schlozman, E. & Beresin, E. (2008). Adolescent psychological development: A Review.adolescencet Available at: [www.atical Google](http://www.atical Google).

Helmer, O., & Rescher, N. (1959). On the epistemology of the inexact science. *Management Science*, 6, 25-53.

Henderson, A.T., and Mapp, K.L. (2002). A new wave of evidence: The impact on school, family, and community connections on student achievement. Southwest

Educational Development Laboratory: Austin, TX.

Hodne, C.J. (1995). Medical decision making. In: O'Hara, M.W. and Reiter, R.C., Editors, 1995. Psychological aspects of women's reproductive health, Springer, New York, pp. 267–290.

Howell, D.C. (2008). Fundamental statistics for behavioural science. Belmont CA: Thomson/Wadsworth.

HSCIC, (2011). Smoking, Drinking and Drug Use Among Young People in England

Hsieh, H.F. & Shannon, S.E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277-1288.

Hsu, C. & Sandford, B. A. (2007). The Delphi technique: Making sense of consensus. *Practical Assessment, Research & Evaluation* 12(10): 1–9.

Huang, Y.F., Kuo, H.S., Lew-Ting, C.Y., Tian, F., Yang, C.H., Tsai, T.I., Gange, S.J. & Nelson, K.E. (2011). Mortality among a cohort of drug users after their release from prison: an evaluation of the effectiveness of a harm reduction program in Taiwan. *Aug;106(8):1437-45*. doi: 10.1111/j.1360-0443.2011.03443.x. Epub 2011 May 12.

Israel, G. & Ilvento, T. (1995). Everybody Wins: Involving Youth in Community Needs Assessment. *Journal of Extension*. 33(2):

Ito, M., Baumer, S., Bittanti, M., boyd, d., Cody, R. & Herr-Stephenson, B. (2010). *Hanging out, messing around, geeking out: Kids living and learning with new media*. Cambridge, MA: MIT Press

Ivankova, N., Creswell, J. & Stick, S. (2006). Using Mixed-Methods Sequential

Explanatory Design: From Theory to Practice DOI: 10.1177/1525822X05282260.  
Field Methods 2006; 18; 3

Jarvie, G. & Maguire, J.A. (1994). Sport and leisure in Social thought. London and New York: Routledge.

Jaycox, L. H., McCaffrey, D., Eiseman, B., Aronoff, J., Shelley, G. A. & Collins, R. L. (2006). Impact of a school-based dating violence prevention program among Latino teens: randomized controlled effectiveness trial. *J Adolesc Health*, 39(5), 694-704.

Jenkins, H. (2006). Confronting the challenges of participatory culture: Media education for the 21st century. Chicago, IL: The MacArthur Foundation.

Jones, H. L. (1955) "The Application of Sampling Procedures to Business Operations." *Journal of the American Statistical Association*. 50.271 (1955): 763-774.

Kamberelis, G. & Dimitriadis, G. (2008) 'Focus groups: Strategic articulations of pedagogy, politics, and inquiry', in Denzin, N. K. and Lincoln, Y. S. (eds.) *Collecting and interpreting qualitative materials*, 3rd edn. Thousand Oaks, CA: Sage. pp. 375-402.

Kanfer, F.H. (1970). Self-regulation: Research, issues, and speculations. In: C. Neuringer and J.L. Michael, Editors, *Behavior modification in clinical psychology*, Appleton-Century-Crofts, New York, pp. 178–220.

Kelly, C. M., Baker, E. A., Brownson, R. C., & Schootman M. (2007). Translating research into practice: Using concept mapping to determine locally relevant intervention strategies to increase physical activity. *Evaluation and Program Planning*, 30(3), 282-293.

Kennedy, H. P. (2004). Enhancing Delphi research: Methods and results. *Journal of Advanced Nursing*, 45(5), 504-511.

Kibombo, R. (2007). HIV/AIDS and Sexual-Risk Behaviours among Adolescents: Factors influencing the use of condoms in Burkina Faso. *African Reproductive Health*, 11(3): 182-196.

Kilian, A.H.D., Gregson, S, & Ndyabangi, B. (1999). Reduction in risk behaviour provide the most consistent explanation for declining HIV-1 prevalence in Uganda. *AIDS*, 13: 391-398.

Kirby, D. (2001). *Emerging Answers: Research Findings on Programs to Reduce Teen Pregnancy*. Washington, DC: National Campaign to Prevent Teen Pregnancy.

Kistner, J., David, C. & Repper, K. (2007). Self-enhancement of Peer Acceptance: Implications for Children's Self-worth and Interpersonal Functioning. *Social Development*, 16 (1), p. 24–44

Kitchenham, B., 2004. *Procedures for Performing Systematic Reviews*. Technical Report TR/SE0401, Keele University, and Technical Report 0400011T.1, National ICT Australia

Koekkoek et al. (2010). Development of an intervention program to increase effective behaviours by patients and clinicians in psychiatric services: Intervention Mapping study. *BMC Health Services Research* 2010, 10:293.  
<http://www.biomedcentral.com/1472-6963/10/293>

Kok, G., Schaalma, H., Ruiter, R, Empelen, P. & Van Brug, J. (2004). Intervention mapping: A protocol for applying Health Psychol theory to prevention programmes. *J Health Psychol* 2004, 9:85-89.

Kranzler, J.H. (2010). Frequency Distributions. Statistics for the terrified (ch. 4). New Jersey: Pearson Education.

Kristjansson, A.L., Sigfustottir, I.D. & Allegrante, J.P. (2008). Academic achievement among adolescents: The relationship and impact of body mass index, health behaviors, and self-esteem. *Health Education & Behavior* 2008 Jun 9; [Epub ahead of print].

Krueger, R. A. & Casey, M. A. (2000). (Third edition) Focus groups: A practical guide for applied research. Thousand Oaks, CA: Sage.

Kumpfer, K.L. & Turner, C.W. (1990). The Social Ecology Model of Adolescent Substance Abuse: Implications for prevention. *Substance Use and Misuse*, 25 (4), 435-463.

Lansford, J.E., Criss, M.M., Pettit, G.S., Dodge, K.A. & Bates, J.E. (2003). Friendship Quality, Peer Group Affiliation, and Peer Antisocial Behavior as Moderators of the Link Between Negative Parenting and Adolescent Externalizing Behavior. *Journal of Research on Adolescence*, 13 (2), p. 161–184

LaRusso, M. & Selman, R. (2003). The influence of school atmosphere and development on adolescents' perceptions of risk and prevention. In D. Romer (Ed.), *Reducing adolescent risk: Toward an integrated approach*. Thousand Oaks, CA: Sage Publications

Lavallee, K.L., Bierman, K.L. & Nix, R. (2006). The Conduct Problems Prevention Research Group. The impact of first grade friendship group experiences on child social outcomes in the fast track program. *Journal of Abnormal Psychology*. 33(3):307–324. [PMC free article] [PubMed]

Leatherdale, S.T. & Ahmed, R. (2010). Alcohol, marijuana and tobacco use among Canadian youth: do we need more multi-substance prevention programming? *J Prim Prev* ;31:99-108. doi:10.1007/s10935-010-0211-y.

Levin, K.A. (2006). Study design III: cross-sectional studies. *Evidenced-Based Dentistry* 2006;7:24-25. doi:10.1038/sj.ebd.6400375

Lewis-Beck, M., Bryman, A. & Liao, T. (2004). Convenience Sampling. *The SAGE Encyclopedia of Social Science Research Methods* Pub. date: 2004 | DOI: <http://dx.doi.org/10.4135/9781412950589> Print ISBN: 9780761923633 | Online ISBN: 9781412950589

Liamputtong, P. (2009) *Qualitative research methods*, 3rd edition. Melbourne: Oxford University Press:

Libin, A., Laouderdale, M., Millo, Y., Shamloo, C., Spencer, R., Green, B., Donnelan, J., Wellesley, C. & Groah, S. (2010), "Role-playing simulation as an educational tool for health care personnel: developing and embedded assessment framework", *Cyberpsychology, Behaviour and Social Networking*, Vol. 13 No. 2, pp. 217-224.

Lincoln, S. Y., Guba, E. G. (1985). *Naturalistic inquiry*. Thousand Oaks, CA: Sage.

Lindeman, C. A. (1981). *Priorities within the health care system: A Delphi survey*. Kansas City, MO: American Nurses' Association.

Linstone, H. A., & Turoff, M. (1975). Introduction. In H.A. Linstone, & M. Turoff (Eds.). *The Delphi method: Techniques and applications* (pp. 3-12). Reading, MA: Addison-Wesley Publishing Company.

Linstone, H. A., and Turoff, M. (2002). *The Delphi Method: Techniques and Applications* (<http://is.njit.edu/pubs/delphibook/index.html>)

Lloyd, J.J., Logan, S., Greaves, C.J. & Wyatt, K.M. (2011). Evidence, theory and context -using intervention mapping to develop a school-based intervention to prevent obesity in children. *Int J Behav Nutr Phys Act* 8. doi:10.1186/1479-5868-8-73

MacNealy, M. S. (1999). *Strategies for empirical research in writing*. New York: Addison Wesley Longman.

Madray, H. & Van Hulst, Y. (2000). Reducing HIV/AIDS high-risk behavior among injection drug users: Peers Vs. Education. *Journal of Drug Education*, 30(2), 205-211.

Maher CA, Lewis L, Ferrar K, Marshall S, De Bourdeaudhuij I, et al.. (2013) Are health behaviour change interventions that use online social networks effective? A systematic review. *Journal of Medical Internet Research*: In press. [PMC free article] [PubMed]

Makhoul, J., Alameddine, M. & Afifi, R. (2012). 'I felt that I was benefiting someone': youth as agents of change in a refugee community project. *Health Education Research*. 27 (5): 914-926.

Mangrulkar, L., Whitman, C. & Posner, M. (2001), *Life Skills Approach to Child and Adolescent Healthy Human Development*. Pan American Health Organization. Division of Health Promotion and Protection Family Health and Population Program Adolescent Health Unit. Washington DC.

Martin, C.L., Fabes, R.A., Hanish, L.D., Leonard, S. & Dinella, L. (2011). Experienced and expected similarity to same-gender peers: Moving toward a comprehensive model of gender segregation. *Sex Roles*. 65:421–434. doi:10.1007/s11199-011-0029-y.

Martino, J. P. (1983). *Technological forecasting for decision making*. New York: North-Holland.

Maxwell, J. A. (1996). *Qualitative research design: An interactive approach*. Thousand Oaks, CA: Sage.

McVie, S. & Bradshaw, P. (2005). *Adolescent Smoking, Drinking and Drug Use*.



Edinburgh: Centre for Law and Society.

Mental Health & Substance Abuse, Medical Research Council SUBSTANCE ABUSE  
IN SOUTH AFRICA: COUNTRY REPORT FOCUSING ON YOUNG PERSONS:

Prepared for the WHO/UNDCP Regional Consultation - Global Initiative on Primary  
Prevention of Substance Abuse Among Young People, Harare, Zimbabwe, 24-26  
February 1998

MMWR (2014). Centers for Disease Control and Prevention. Morbidity and Mortality  
Weekly Report / Vol. 63 / No. 26 July 4.

MMWR (2013). Methodology of the Youth Risk Behavior Surveillance System —  
Recommendations and Reports. March 1, 2013 / 62(RR01);1-23

Morawska, A., Sanders, M.R., O'Brien, J., McAulliffe, C., Pope, S. & Anderson, E.  
(2012). Practitioner Perceptions of the Use of the Triple P – Positive Parenting  
Program with Culturally Diverse Families. Child Adolesc. Mental Health. Manuscript  
Online First.

Multisite Violence Prevention Project. (2008) The Multisite Violence Prevention  
Project: Impact of a universal school-based violence prevention program on social  
cognitive outcomes. Prevention Science. 9:231–244. [PMC free article] [PubMed]

Murray, C.J.L. & Lopez, A.D. (1997). Global mortality, disability, and the contribution  
of risk factors: Global Burden of Disease Study. Lancet. 1997;349:1436–42.  
[PubMed]

National AIDS and STI Control Program (2008). Kenya AIDS Indicator Survey 2007:  
Preliminary Report. Ministry of Health, Nairobi, Kenya.

National Research Council and Institute of Medicine (2002) Community programs to  
promote youth development (Washington, National Academy Press).

National Youth Policy 2009.

<http://www.thepresidency.gov.za/MediaLib/Downloads/Home/Publications/YouthPublications/NationalYouthPolicyPDF/NYP.pdf>

Neill, J. T., Marsh, H. W., & Richards, G. E. (2003). The Life Effectiveness Questionnaire: Development and psychometrics. Unpublished manuscript, University of Western Sydney, Sydney, NSW, Australia.

Neill, J.T, Marsh, H.W. & Richards, G.E. (1997). "The Life Effectiveness Questionnaire: Development and psychometrics". Sydney: University of Western Sydney, at [http://wilderdom.com/tools/\\_\\_\\_leq/legreferences.html](http://wilderdom.com/tools/___leq/legreferences.html) 10 May 2003.

NICE guidelines [PH6] Published date: October 2007.

<http://www.nice.org.uk/guidance/ph6>

Novak, J. D. & Cañas A. J.(2008) The Theory Underlying Concept Maps and How to Construct Them, Technical Report IHMC CmapTools 2006-01 Rev 01-2008, Florida Institute for Human and Machine Cognition, available at:

<http://cmap.ihmc.us/Publications/ResearchPapers/TheoryUnderlyingConceptMaps.pdf>.

Novak, J.D. (1998a) Learning, creating and using knowledge: Concept maps as facilitative tools in schools and corporations. Hillsdale, NJ: Lawrence Erlbaum Associates.

Novak, J.D. and D.B. Gowin (1984) Learning how to learn. Cambridge, CUP.

Nulty, D. (2008). The adequacy of response rates to online and paper surveys: What can be done? *Assessment & Evaluation in Higher Education*, 33(3), 301–314. (DOI:10.1080/02602930701293231)

O'Brien, L.M., Polacsek, M., Macdonald, P.B., Ellis, J., Berry, S. & Martin, M. (2010). Impact of a school health coordinator intervention on health-related school policies and student behavior. *J Sch Health*. 2010 Apr;80(4):176-85. doi: 10.1111/j.1746-

1561.2009.00484.x.

Oliver, M., Badland, H.M., Burke, M., Duncan, M.J. & Schoeppe, S. (2013):  
Recruitment and Retention of Children in Behavioral Health Risk Factor Studies:  
Reach Strategies. Springer. <http://dx.doi.org/10.1007/s12529-013-9347-5>.

O'Hearn, T & Gatz, M. (2002).

Going for the Goal: Improving youths' problem-solving skills through a school-based  
intervention. DOI: 10.1002/jcop.10009

Omotoso, O. (2007). Poster presentation at the 5th African Population Conference  
10-14, .ARUSHA, TANZANIA

Orriols, L., Gaillard, J., Lapeyre-Mestre, M. & Roussin, A. (2009). Evaluation of  
abuse and dependence on drugs used for self-medication. *Journal of Drug Safety*,  
32(10), 859-873.

Ory, M.G., Jordan, P.J. & Bazzarre, T. (2002). The behavior change consortium:  
Setting the stage for a new century of health behavior-change research. *Health  
Education & Research*. 17:500–511.

Parker, J. (2000) *Let Your Life Speak: Listening for the Voice of Vocation*, San  
Francisco: Jossey-Bass.

Papaioannou A. (1997). "I agree with the referee's abuse, that's how I also beat":  
prediction of sport violence and attitudes towards sport violence. *Eur Yearbook Sport  
Psychol* 1:113-29.

Papaioannou, A., Ballon, F., Theodorakis, Y. & Auwelle, Y.Y. (2004). Combined  
effect of goal setting and self talk in performance of a soccer shooting task,  
Perceptual and motor skills.

Patrikakou, E. & Weissber, R. et al. (2005). School, family partnerships  
for children's success. The series on social emotional learning. New York: Teachers  
College Press.

Patton, M. (1990). *Qualitative evaluation and research methods* (2nd ed.). Thousand

Oaks, CA: Sage Publications.

Penuel, W. R., Fishman, B. J., Cheng, B. H., & Sabelli, N. (2011). Organizing research and development at the intersection of learning, implementation, and design. *Educational Researcher*, 40(7), 331-337

Perkins, D. F., & Borden, L. M. (2003). Key elements of community youth development. In F. A. Villarruel, D. F. Perkins, L. M. Borden, & J. G. Keith (Eds.), *Community youth development: Programs, policies, and practices* (pp. 327–340). Thousand Oaks, CA: Sage

Perkins, D.F., & Noam, G.G. (2007). Characteristics of sports-based youth development programs. *New Directions for Youth Development*, 115, 75-84.  
Peters, L.W.H. et al. (2009). A review of similarities between domain specific determinants of four health behaviors among adolescents. *Health Education Research*, 24, 198-223.

Petitpas, A. J., Cornelius, A. E., Van Raalte, J. L., & Jones, T. (2005). A framework for planning youth sport programs that foster psychosocial development. *Quest*, 19, 63-80.

Petratis, J., Flay, B. R., & Miller, T. Q. (1995). Reviewing theories of adolescent substance use: Organizing pieces in the puzzle. *Psychological Bulletin*, 117, 67–86

Pfeiffer, J. (1968). *New look at education*. Poughkeepsie, NY: Odyssey Press.

Pharaoh, H., Frantz, J. & Smith, M. (2011). Life skills as predictors of engagement in health risk behaviours: A survey of secondary school learners. *African Journal for Physical, Health Education, Recreation and Dance*, June (Supplement), 70-81.

Polit, D.F., Beck, C.T., Hungler, B.P. (2001) *Essentials of Nursing Research: Methods, Appraisal, and Utilisation* (5th edn). Philadelphia: Lippincott

Post, J.E., Preston, L.E. & Sachs, S. (2002). Managing the extended enterprise: The new stakeholder view. *California Management Review* 45(1): 6-28

Pretorius, T.B. (2007). *Inferential Data Analysis: Hypothesis Testing and Decisionmaking* (ch 3). Wandsbeck: Reach Publishers.

Prinstein, M.J. & Wang, S.S. (2005). False consensus and adolescent peer contagion: Examining discrepancies between perceptions and actual reported levels of friends' deviant and health risk behaviors. *Journal of Abnormal Child Psychology*. 2005;33:293–306. doi: 10.1007/s10802-005-3566-4.

Prinstein, M. J., Brechwald, W. A., & Cohen, G. L. (2011). Susceptibility to Peer Influence: Using a Performance-Based Measure to Identify Adolescent Males at Heightened Risk for Deviant Peer Socialization. *Developmental Psychology*, 47(4), 1167–1172. doi:10.1037/a0023274

Prochaska, J.O. (2008). Multiple health behavior research represents the future of preventive medicine. *Preventative Medicine*, 46, 281-285.

Rebich, S., & Gautier, C. (2005). Concept mapping to reveal prior knowledge and conceptual change in a mock summit course on global climate change. *Journal of Geoscience Education*, 53(4), 355.

Reddy, K.S., Arora, M., Perry, C.L., Nair, B., Kohli, A. & Lytle, L.A. (2002). Tobacco and alcohol use outcomes of a school-based intervention in New Delhi. *American Journal of Health Behavior*. 2002;26:173–181. [PubMed]

Reddy, S., Panday, S., Swart, D., Jinabhai, C., Amosun, S. & James S. (2003). *Umthente Uhlaba Usamila – The South African Youth Risk Behaviour Survey* (2002). Capetown, South Africa: South African Medical Research Council. 2003.

Reddy, S.P., James, S., Sewpaul, R., Koopman, F., Funani, N.I., Sifunda, S., Josie, J., Masuka, P., Kambaran, N.S. & Omardien, R.G. (2008). *Umthente Uhlaba*

Usamila – The South African Youth Risk Behaviour Survey 2008. Cape Town: South African Medical Research Council, 2010

Reddy, P., James, S., & McCauley, A. (2003). Programming for HIV Prevention in South African schools: A Report on Programme Implementation. Medical Research Council.

Rose, A.J., Rudolph, K.D. (2006). A review of sex differences in peer relationship processes: Potential trade-offs for the emotional and behavioral development of girls and boys. *Psychological Bulletin*. 132:98–131. doi: 10.1037/0033-2909.132.1.98.

Rosenstock, I. (1974). Historical Origins of the Health Belief Model. *Health Education Monographs*. Vol. 2 No. 4.

Roth, J. L. & Brooks-Gunn, J. (2003). "What exactly is a youth development program? Answers from research and practice." *Applied Developmental Science* 7(2): 94-111.

Sadock, B.J. & Sadock, V.A. (2003). *Synopsis of Psychiatry: Behavioral Science/ Clinical Psychiatry* (9th ed.). Philadelphia: Lippincott Williams & Wilkins.

Sallis, J. F., Prochaska, J. J., & Taylor, W. C. (2000). A review of correlates of physical activity of children and adolescents. *Medicine and Science in Sport and Exercise*, 32(5), 963-975.

Saxena, D.B., Kumar, P., Rana, M. & Shah, H.M. (2012). A case study on use of modified delphi technique for developing consensus on designing contents of a module for imparting sex education to adolescents in schools, in India  
fulltext: <http://www.gjmedph.org/uploads/O1-Vo1No3.pdf> pages: 3 - 7

Schlosser, R.W. (2007). Appraising the quality of systematic reviews. Technical Brief No. 17 FOCUS: A publication of the National Center for Dissemination of Disability Research. Retrieved from <http://www.ncddr.org>.

SG Report (2014). On smoking and Health. 50<sup>th</sup> Anniversary 1964-2014. .

SG Report (2012). Adolescents and Youth. February 2012.

(Secretary-General's Report to the General Assembly, A/40/256, 1985).

Sincero, S. (2012). Advantages and Disadvantages of Surveys. Retrieved Dec 15, 2014 from Explorable.com: <https://explorable.com/advantages-and-disadvantages-of-surveys>

Smetana, J. G. & Asquith, P. (1994). Adolescents' and Parents' Conceptions of Parental Authority and Personal Autonomy. *Child Development*, 65, 1147–1162. doi: 10.1111/j.1467-8624.1994.tb00809.x

Smith, E., Caldwell, L. L., Baldwin, C. K. & Walls, T. (2004). Preliminary effects of a leisure education program to promote health use of free time among middle school adolescents. *Journal of Leisure Research*, 36:310–355.

Smith, E. A., Swisher, J.D. & Vicary, J et al. (2004). "Evaluation of Life Skills Training and Infused-Life Skills Training in a Rural Setting: Outcomes at Two Years," *Journal of Alcohol and Drug Education*, Vol. 48, No. 1, 2004, pp. 51-70.

Snider, C.E., Kirst, M. & Abubakar, S.(2010). Community-based participatory research: development of an emergency department-based youth violence intervention using concept mapping. *Acad Emerg Med*. 17:877-85.

Soper, A. C., Wolchik, S. A., Tein, J.-Y., & Sandler, I. N. (2010). Mediation of a preventive intervention's 6-year effects on health risk behaviors. *Psychology of Addictive Behaviors*, 24(2), 300-310.

Spera, C. (2005). A review of the relationship among parenting practices, parenting styles, and adolescent school achievement. *Educational Psychology Review*, 17(2), 125-146.

Spoth, R.; Greenberg, M.; and Turrisi, R. Preventive interventions addressing underage drinking: State of the evidence and steps toward public health impact.



Pediatrics 121:S311–S336, 2008. PMID: 18381496

Steeh, C., Kirgis, N., Cannon, B., & DeWitt, J. (2001). Are they really as bad as they seem? Nonresponse rates at the end of the Twentieth Century. *Journal of Official Statistics*, 21(2), 227-247.

Stephenson, M. (2007). *Young people and offending: Education, youth justice and social inclusion*. Devon, UK: Willon Publishing

Step toe, A. & Wardle, J. (2004). Health-related behavior: prevalence and links with disease. In A. Kaptein, & J. Weinmen (Eds.), *Health Psychology*. BPS: Blackwell

Stoltz, J. (2007). Masculinity and School Violence: Addressing the Role of Male Gender Socialization. *Canadian Journal of Counselling and Psychotherapy / Revue canadienne de counseling et de psychothérapie*, North America. Available at: <http://cjcrc.ualgary.ca/cjc/index.php/rcc/article/view/268>. Date accessed: 31 Mar. 2013.

Strasburger, V.(2009). Children, adolescents and the media: what we know, what we don't know and what we need to find out (quickly!). *Arch Dis Child* 2009;94:655 –7

Swadi, H. & Zeitlin, H. (1988). Peer influence and adolescent substance abuse: A promising side? *British Journal of Addiction*, 83 (2) 153-157.

Swart, D., Reddy, P., Pitt, B., & Panday, S. (2001). The prevalence and determinants of tobacco-use among Grade 8-10 learners in South Africa. Medical Research Council, Cape Town.

Swart, D., Reddy, P., Ruiter, R. A. C., & de Vries, H. (2002). Cigarette use among male and female grade 8-10 students of different ethnicity in South African schools. *Tobacco Control*, 11, pp. 1-4.

Swart, L. A., Seedat, M., Stevens, G., Ricardo, I. (2002). Violence in adolescents' romantic relationships: findings from a survey amongst school-going youth in a



South African community. *Journal of Adolescence*, 25, pp. 385-395.

Taylor, D.J. (2009). Issues in the design, analysis, and interpretation of condom functionality studies. *Contraception*; 80:237-244

Taylor, N. J., Sahota, P., Sargent, J., Barber, S., Loach, J., Louch, G., & Wright, J. (2013). Using intervention mapping to develop a culturally appropriate intervention to prevent childhood obesity: the HAPPY (Healthy and Active Parenting Programme for Early Years) study. *The International Journal of Behavioral Nutrition and Physical Activity*, 10, 142. doi:10.1186/1479-5868-10-142

Taylor, M. et al. (2003). An epidemiological perspective of substance use among high school pupils in rural KwaZulu-Natal. *South African Medical Journal*, 2003, 93(2):136–140.

Ten Dam, G.T.M. (2002). Effectiveness in health education. In Conference Report: Education and Health in Partnership: A European Conference on Linking Education with the Promotion of Health in Schools: 25–27 September 2002; Egmond aan Zee, The Netherlands T. Young Woerden (Eds.). The Netherlands: Netherlands Institute for Health Promotion and Disease Prevention/International Planning Committee of the European Network of Health Promoting Schools; 17-22.

Torabi, M. R., Bailey, W. J. & Majd-Jabbari, M. (1993). Cigarette Smoking as a Predictor of Alcohol and Other Drug Use by Children and Adolescents: Evidence of the “Gateway Drug Effect”. *Journal of School Health*, 63, 302–306. doi: 10.1111/j.1746-1561.1993.tb06150.x

Torino, (2005). A review of theory and evidence-based interventions in health psychology “Torino Commitments on Sport and Environment” ([http://multimedia.olympic.org/pdf/en\\_report\\_1001.pdf](http://multimedia.olympic.org/pdf/en_report_1001.pdf) 29/12/2005).

Triandis, H. C. (1977). *Interpersonal behavior*. Monterey, CA : Brooks/Cole.

Trochim, W.M. & Linton, R. (1986). Conceptualization for planning and evaluation. *Eval Program Plann* ;9:289-308.

Trochim, W.M.K. (1989). An introduction to concept mapping for planning and evaluation. *Eval Program Plann* ;1:1-16.

UNAIDS (2010). Outlook, Breaking News.

[http://data.unaids.org/pub/outlook/2010/20100713\\_outlook\\_youngpeople\\_en.pdf](http://data.unaids.org/pub/outlook/2010/20100713_outlook_youngpeople_en.pdf)

UNAIDS (2011). UNAIDS World AIDS Day report.

UNESCO International Bureau of Education (2009). International Conference on Education. Inclusive Education: The Way of the Future 28th Session Geneva 25–28 November 2008. UNESCO Paris.

[http://www.ibe.unesco.org/fileadmin/user\\_upload/Policy\\_Dialogue/48th\\_IC\\_E/ICE\\_FINAL\\_REPORT\\_eng.pdf](http://www.ibe.unesco.org/fileadmin/user_upload/Policy_Dialogue/48th_IC_E/ICE_FINAL_REPORT_eng.pdf) Accessed 08/06/2010

UNICEF (2012). Progress for Children: A Report Card on Adolescents No. 10 (New York: UNICEF, accessed at [www.unicef.org/publications/files/Progress for\\_Children No.10\\_EN\\_04272012.pdf](http://www.unicef.org/publications/files/Progress_for_Children_No.10_EN_04272012.pdf), on Sept. 27.

UNICEF (2000). Skills-Based Health Education to Prevent HIV/AIDS. New York: UNICEF, For more information, visit [www.unicef.org/programme/lifeskills/](http://www.unicef.org/programme/lifeskills/).

Valente, T.W., Rilt-Olsen, A., Stacy, A., Unger, J.B., Okamoto, J. & Sussman, S. (2007). Peer acceleration: Effects of a social network tailored substance abuse prevention programme. *Addiction*, 102 (11), 1804-1815.

Visser, L., de Winter, A.F., Veenstra, R., Verhulst, F.C. & Reijneveld, S.A. (2012). Alcohol use and abuse in young adulthood: Do self-control and parents' perceptions of friends during adolescence modify peer influence? The TRAILS study. *Addictive Behaviours*, 12: 2841-2846.

Visser, M.J., Schoeman, J.B. & Perold, J.J. (2004). Evaluation of HIV/AIDS

prevention in South African schools. *J Health Psychol.*;9(2):263-80. Pub MED

Visser, M.J (2005). Life skills training as HIV / AIDS preventive strategy in secondary schools : evaluation of a large-scale implementation process : original article.

SAHARA : Journal of Social Aspects of HIV / AIDS Research Alliance, Vol 2, Issue 1, Apr, Pages: p.203-216

Wang, S., Moss, J. & Hiller, J. (2006). Applicability and transferability of interventions in evidence-based public health. *Health Promotion International* 21 (1): 76-83. doi: 10.1093/heapro/dai025

Werch, C., Moore, M., DiClemente, C.C., Owen, D.M., Jobli, E. & Bledsoe, R. A. (2003). Sport-based intervention for preventing alcohol use and promoting physical activity among adolescents. *Journal of School Health.* 73(10):380–388. [PubMed]

Werch, C. (2007). The Behavior-Image Model: A paradigm for integrating prevention and health promotion in brief interventions. *Health Education Research.* 2007b;22(5):677–690. [PubMed]

Werch, C.E., Moore, M.J., DiClemente, C.C., Bledsoe, R. & Jobli E. (2005). A multi-health behavior intervention integrating physical activity and substance use prevention for adolescents. *Prevention Science.* 6(3):213–226. [PubMed]

WHO (2014). Adolescents: health risks and solutions. Fact sheet N°345. Updated May 2014

WHO (2010). Global status report on non-communicable diseases. 1. Chronic disease - prevention and control. 2. Chronic disease - epidemiology. 3. Chronic disease - mortality. 4. Cost of illness. 5. Delivery of health care. World Health Organization. ISBN 978 92 4 156422 9 (NLM classification: WT 500) ISBN 978 92 4 068645 8 (PDF)

WHO (2001). Global consultation of friendly health service consensus statement.

Geneva: World Health Organization; 2001.

Wiefferink, C.H., Peters, L., Hoekstra, F., Ten Dam, G., Buijs, G.J. & Paulussen, T.G.W.M.(2006). Clustering of health-related behaviors and their determinants: possible consequences for school health interventions. *Preventative Science*, 7, 127-149.

Wilkinson, S. (2004). Focus group research. In D. Silverman (ed.), *Qualitative research: Theory, method, and practice* (pp. 177–199). Thousand Oaks, CA: Sage.

Wilson, S. J., & Lipsey, M. W. (2007). School-based interventions for aggressive and disruptive behavior: Update of a meta-analysis. *American Journal of Preventive Medicine*, 33(2, Suppl.), S130–143. PubMed abstract available at <http://www.ncbi.nlm.nih.gov/pubmed/17675014>.

Winzenreid, A. (1997, July 6). Delphi studies: The value of expert opinion bridging the gap -- Data to knowledge. Paper presented at the annual conference of the International Association of School Librarianship held in conjunction with the International Association of Teacher-Librarianship.

Wolfers, M., Van den Hoek, C., Brug, J. & De Zwart, O. (2007). Using Intervention Mapping to develop a programme to prevent sexually transmittable infections, including HIV, among heterosexual migrant men. *BMC Public Health* 2007, 7:141 doi:10.1186/1471-2458-7-141

World Health Organization, Regional Office for the Western Pacific (WHO/WPRO). (2003). *Value adolescents, invest in future: Educational package. Facilitator's manual*. Manila, Philippines: Author.

Wright, P. M., & Burton, S. (2008) Examining the implementation and immediate outcomes of a personal-social responsibility model program for urban high school students. 27, 138-154.

Yang, Y. N. (2003, April 21). Testing the stability of experts' opinions between

successive rounds of Delphi studies. Paper presented at the annual meeting of the American Educational Research Association.

Young, S. J., & Jamieson, L. M. (2001). Delivery methodology of the Delphi: A comparison of two approaches. *Journal of Park and Recreation Administration*, 19 (1), 42-58.

YRBSS: Youth Risk Behavioural Surveillance System 2002 (On Line). Available: [www.cdc.gov/health youth/yrbss](http://www.cdc.gov/health youth/yrbss) (2010, March 07).

Zarrett, N., Fay, K., Li, Y., Carrano, J., Phelps, E. & Lerner, R. M. (2009). More than child's play: Variable- and pattern-centered approaches for examining effects of sports participation on youth development. *Developmental Psychology*, 45, 368 – 382.

Zulkifli, S.N. & Wong, Y. L. (2002). Knowledge, attitudes and beliefs related to HIV/AIDS among adolescents in Malaysia. *The Medical journal of Malaysia* 57(1):3-23.





UNIVERSITY of the  
WESTERN CAPE

OFFICE OF THE DEAN  
DEPARTMENT OF RESEARCH DEVELOPMENT

Appendix A

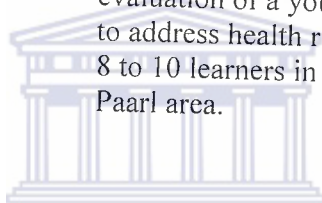
04 April 2013

To Whom It May Concern

I hereby certify that the Senate Research Committee of the University of the Western Cape has approved the methodology and ethics of the following research project by:  
Mr H Pharoah (Physiotherapy)

Research Project:

The development, implementation and evaluation of a youth development programme to address health risk behaviour among grade 8 to 10 learners in a selected school in the Paarl area.



Registration no:

10/6/2  
UNIVERSITY of the  
WESTERN CAPE

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

The Committee must be informed of any serious adverse event and/or termination of the study.

*Ms Patricia Josias*  
*Research Ethics Committee Officer*  
*University of the Western Cape*

Navrae  
Enquiries Dr RS Cornelissen  
IMibuzo  
Telefoon  
Telephone (021) 467-2286  
IFoni  
Faks  
Fax (021) 425-7445  
IFeksi

Verwysing  
Reference 20100730-0065  
ISalathiso



Wes-Kaap Onderwysdepartement

Western Cape Education Department

ISebe leMfundo leNtshona Koloni

Mr Hamilton Pharaoh  
Department of Education  
University of the Western Cape  
Private Bag X17  
BELLVILLE  
7535

## APPENDIX B

Dear Mr H. Pharaoh

### RESEARCH PROPOSAL: DEVELOPMENTAL, IMPLEMENTATION AND EVALUATION OF YOUTH DEVELOPMENT PROGRAMMES TO ADDRESS HEALTH RISK BEHAVIOUR AMONG GRADE 8 TO GRADE 10 LEARNERS IN SELECTED SCHOOLS.

Your application to conduct the above-mentioned research in schools in the Western Cape has been approved subject to the following conditions:

1. Principals, educators and learners are under no obligation to assist you in your investigation.
2. Principals, educators, learners and schools should not be identifiable in any way from the results of the investigation.
3. You make all the arrangements concerning your investigation.
4. The programmes of Educators are not to be interrupted.
5. The Study is to be conducted from 2<sup>nd</sup> August 2010 to 30<sup>th</sup> September 2010.
6. No research can be conducted during the fourth term as schools are preparing and finalizing syllabi for examinations (October to December).
7. Should you wish to extend the period of your survey, please contact Dr R. Cornelissen at the contact numbers above quoting the reference number.
8. A photocopy of this letter is submitted to the principal where the intended research is to be conducted.
9. Your research will be limited to the list of schools as submitted to the Western Cape Education Department.
10. A brief summary of the content, findings and recommendations is provided to the Director: Research Services.
11. The Department receives a copy of the completed report/dissertation/thesis addressed to:

**The Director: Research Services  
Western Cape Education Department  
Private Bag X9114  
CAPE TOWN  
8000**

We wish you success in your research.

Kind regards.

Signed: Ronald S. Cornelissen  
for: **HEAD: EDUCATION**  
**DATE: 30<sup>th</sup> July 2010**

MELD ASSEBLIEF VERWYSINGSNOMMERS IN ALLE KORRESPONDENSIE / PLEASE QUOTE REFERENCE NUMBERS IN ALL CORRESPONDENCE /  
NCEDA UBHALE IINOMBOLO ZESALATHISO KUYO YONKE IMBALELWANO

GRAND CENTRAL TOWERS, LAER-PARLEMENTSTRAAT, PRIVAATSAK X9114, KAAPSTAD 8000  
GRAND CENTRAL TOWERS, LOWER PARLIAMENT STREET, PRIVATE BAG X9114, CAPE TOWN 8000

WEB: <http://wced.wcape.gov.za>

INBELSENTRUM /CALL CENTRE

INDIENSNEMING- EN SALARISNAVRAE/EMPLOYMENT AND SALARY QUERIES ☎0861 92 33 22

VEILIGE SKOLE/SAFE SCHOOLS ☎ 0800 45 46 47



# Klein Nederburg

## Secondary • Sekondêr

Newman Street/Straat • Huguenot • 7646 • Posbus 13 • Huguenot • 7645  
Tel.: (021) 862 7270 • Fax.: (021) 862 7272 • E-mail: postmaster@kns.wcape.school.za



Mr Hamilton Pharaoh  
Department of Education  
University of the Western Cape  
Private Bag X17  
BELLVILLE  
7535

### Appendix C

Dear Mr H. Pharaoh

**RESEARCH PROPOSAL: DEVELOPMENTAL, IMPLEMENTATION AND  
EVALUATION OF YOUTH DEVELOPMENT PROGRAMMES TO ADDRESS  
HEALTH RISK BEHAVIOUR AMONG GRADE 8 TO GRADE 10 LEARNERS IN  
SELECTED SCHOOLS.**

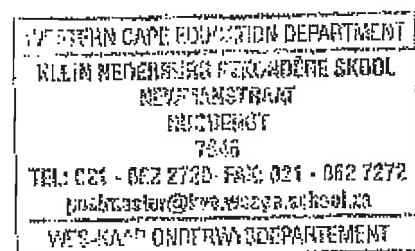
Your application (ref. 20100730-0065) to conduct the above-mentioned research within our school facility has been approved based on the conditions as stipulated in the Western Cape Education Departments approval letter dated 30 July 2010.

The school will gladly assist with your study endeavours. Please contact the secretary of the school who will direct you to the necessary teachers who will assist with all the arrangements.

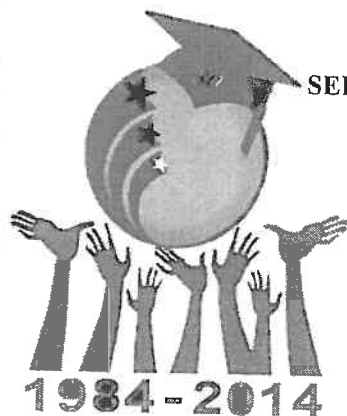
We wish you success in your research.

Kind regards.

Signed:   
for: Klein Nederburg Senior Secondary School  
DATE: 05<sup>th</sup> August 2010







SEKONDÊRE  
SKOOL **NEW ORLEANS** SECONDARY  
SCHOOL



SUIKERBOSLAAN/SUIKERBOS AVENUE  
NEW ORLEANS  
PAARL  
7645  
TEL: (021) 862 0900  
FAX: (021) 862 4978  
E-MAIL: [admin@neworleans.wcape.school.za](mailto:admin@neworleans.wcape.school.za)

Mr Hamilton Pharaoh  
Department of Education  
University of the Western Cape  
Private Bag X17  
BELLVILLE  
7535

## Appendix C

Dear Mr H. Pharaoh

**RESEARCH PROPOSAL: DEVELOPMENTAL, IMPLEMENTATION AND  
EVALUATION OF YOUTH DEVELOPMENT PROGRAMMES TO ADDRESS  
HEALTH RISK BEHAVIOUR AMONG GRADE 8 TO GRADE 10 LEARNERS IN  
SELECTED SCHOOLS.**

Your application (ref. 20100730-0065) to conduct the above-mentioned research within our school facility has been approved based on the conditions as stipulated in the Western Cape Education Departments approval letter dated 30 July 2010.

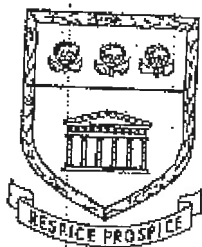
The school will gladly assist with your study endeavours. Please contact the secretary of the school who will direct you to the necessary teachers who will assist with all the arrangements.

We wish you success in your research.

Kind regards.

Signed:   
for Principal New Orleans Senior Secondary School  
DATE: 05<sup>th</sup> August 2010

WKOD/WCED  
NEW ORLEANS SEK./SEC.  
SUIKERBOSLAAN/AVE.  
NEW ORLEANS  
PAARL, 7646  
TEL: 021-8620900  
FAKS/FAX: 021-8624978



# UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa  
Tel: +27 21-9592542, Fax: 27 21-9591217  
E-mail:

## Appendix D

### CONSENT FORM

**Title of Research Project:** The development, implementation and evaluation of a youth development programme to address health risk behaviour among grade 8 to grade 10 learners in a selected school in the Paarl area

The study has been described to me in language that I understand and I freely and voluntarily agree that my child may participate in this study. My questions about the study have been answered. I understand that my child's identity will not be disclosed and that he/she may withdraw from the study without giving a reason at any time and this will not negatively affect him/her in any way. This research project involves making audiotapes of your child. To help protect your child's confidentiality all audio tapes will be stored in a locked filing cabinet, only the researcher will have access to it.

I agree that my child may be audio taped during his/her participation in this study. ☐

I do not agree that my child may be audio taped during his/her participation in this study. ☐

The grade 8-10 learners of one school will then be selected to participate in the sports intervention programme that will run for a period of 6 months. It will be required of those participants who become part of the sports intervention programme to complete the questionnaires 6 months and 12 months post the completion of the sports intervention programme.

I agree that my child may participate in the sports intervention programme ☐

I do not agree that my child may participate in the sports intervention programme ☐

Data collected will be disseminated in the form of publications and conference presentations.

Participant's name.....

Witness.....

Parent's signature.....

Date.....

Should you have any questions regarding this study or wish to report any problems you have experienced related to the study, please contact the study coordinator:

**Study Coordinator's Name: Hamilton Pharaoh**

**18 Murray Street, Paarl, 7646**

**Telephone: (021)959- 2542/3662**

**Cell: 076 455 1242**

**Fax: (021)959-1217**

**Email: [hpharaoh@uwc.ac.za](mailto:hpharaoh@uwc.ac.za)**



UNIVERSITY of the  
WESTERN CAPE



# UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa  
Tel: +27 21-9592542 Fax: 27 21-9591217  
E-mail:

## ASSENT FORM

Appendix E

**Title of Research Project:** The development, implementation and evaluation of a youth development programme to address health risk behaviour among grade 8 to grade 10 learners in a selected school in the Paarl area

The study has been described to me in language that I understand and I freely and voluntarily assent to participate. My questions about the study have been answered. I understand that my identity will not be disclosed and that I may withdraw from the study without giving a reason at any time and this will not negatively affect me in any way. This research project involves making audiotapes of you. To help protect your confidentiality all audio tapes will be stored in a locked filing cabinet, only the researcher will have access to it.

I agree to be audio taped during my participation in this study. ☐

I do not agree to be audio taped during my participation in this study. ☐

The grade 8-10 learners of one school will then be selected to participate in the sports intervention programme that will run for a period of 6 months. It will be required of those participants who become part of the sports intervention programme to complete the questionnaires 6 months and 12 months post the completion of the sports intervention programme.

I agree to participate in the sports intervention programme ☐

I do not agree to participate in the sports intervention programme ☐

Data collected will be disseminated in the form of publications and conference presentations.

Participant's name.....

Participant's signature.....

Witness.....

Date.....

Should you have any questions regarding this study or wish to report any problems you have experienced related to the study, please contact the study coordinator:

**Study Coordinator's Name: Hamilton Pharaoh**

**18 Murray Street, Paarl, 7646**

**Telephone: (021)959- 2542/3662**

**Cell: 076 455 1242**

**Fax: (021)959-1217**

**Email: [hpharaoh@uwc.ac.za](mailto:hpharaoh@uwc.ac.za)**



UNIVERSITY of the  
WESTERN CAPE



# UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa  
Tel: +27 21-959, Fax: 27 21-959  
E-mail:

Appendix F

To: the Parents and Participants

10 August 2010

**Re: PHD Research – Hamilton Pharaoh (Student Number 9194229)**

I am Hamilton Pharaoh, a PhD student from the University of the Western Cape. I am hoping to conduct research as part of my PHD studies in schools in the Paarl area. My research topic is entitled:

**The development, implementation and evaluation of a youth development programme to address health risk behaviour among grade 8 to grade 10 learners in a selected school in the Paarl area.**

The study aims to play a major role in changing health risk behaviour among learners and the project hope to find effective ways to change health risk behaviour amongst learners.

I would therefore like to request permission from learners currently in Grade 8-10 to take part in this study.

UNIVERSITY of the  
WESTERN CAPE

Please find enclosed with this letter:

- The information sheet pertaining to the research that will be conducted.
- Permission forms to be completed by the learners or parents of the learners

I hope that you would look at my request favourably.

Yours sincerely

Hamilton Pharaoh

076 455 1242





# UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa  
Tel: +27 21-959, Fax: 27 21-959  
E-mail:

## INFORMATION SHEET FOR PARENTS

**Project Title:** The development, implementation and evaluation of a youth development programme to address health risk behaviour among grade 8 to grade 10 learners in a selected school in the Paarl area

### **What is this study about?**

This is a research project being conducted by Hamilton Pharaoh at the University of the Western Cape. We are inviting your child to participate in this research project because he/she is among grade 8 to grade 10 learners in a selected school in the Paarl area. The purpose of this research project is to develop, implement and evaluate a youth development programme to address health risk behaviour.

### **What will your child be asked to do if you agree that he/she may participate?**

Your child will be asked to complete questionnaires pertaining to health risk behaviour (the Youth Risk Behaviour Surveillance Survey (YRBSS) and the Life Effective Questionnaire (LEQ)) and when selected participate in focus group discussions. The questionnaires will take approximately 30-45 minutes to complete and the focus group discussion will include participants of the same age with equal male and female representation. The grade 8-10 learners of one school will then be selected to participate in the youth development programme that will run for a period of 6 months. It will be required of those participants who become part of the youth development programme to complete questionnaires 6 months and 12 months post the completion of the programme.

### **Would your child's participation in this study be kept confidential?**

We will do our best to keep your child's personal information confidential. To help protect your child's confidentiality all information gathered will be stored in a locked filing cabinet. The school (Principals and teachers) at the school or any unauthorised party will not be able to access the information. If we write a report or article about this research project, your child's identity will be protected to the maximum extent possible. Participants in the focus group discussion will sign a disclosure statement for confidentiality purposes to make them conscious of the ethical procedures in advance. In accordance with legal requirements and/or professional standards, we will disclose to the appropriate individuals and/or authorities information that comes to our attention concerning child abuse or neglect or potential harm to you or others. Data collected will be disseminated in the form of publications and conference presentations.

### **What are the risks of this research?**

There are no known risks associated with participating in this research project.

**What are the benefits of this research?**

This research is designed to help your child personally when your child and his/her school are chosen to participate in the youth development programme whereby life skills training will form part of the programme. The results may also help the investigator to learn more about the effects of the youth development programme as well as the health risk behaviour learners in grade 8-10 partake in as well as the barriers that prevent health risk behaviour change to take place.

**Does your child have to be in this research and may he/she stop participating at any time?**

Your child's participation in this research is completely voluntary. He/she may choose not to take part at all. If he/she decides to participate in this research, he/she may stop participating at any time. If he/she decides not to participate in this study or if he/she stops participating at any time, he/she will not be penalized or lose any benefits to which he/she otherwise qualify.

**Is any assistance available if your child is negatively affected by participating in this study?**

There are no direct risks associated with participating in the study. However, your child will be referred to an appropriate health professional, should he/she feel emotional or overwhelmed as a result of questioning or inability to perform a task.

**What if I have questions?**

This research is being conducted by *Hamilton Pharaoh* at the University of the Western Cape. If you have any questions about the research study itself, please contact Hamilton Pharaoh at work number 021-9593662 or cell 0764551242, e-mail: [hpharaoh@uwc.ac.za](mailto:hpharaoh@uwc.ac.za)

Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:  
Head of the Physiotherapy Department: Prof. Julie Phillips (e-mail: [jphillips@uwc.ac.za](mailto:jphillips@uwc.ac.za))

or  
Dean of the Faculty of Community and Health Sciences:  
Prof. Ratie Mpofu (e-mail: [mpofu@uwc.ac.za](mailto:mpofu@uwc.ac.za))  
University of the Western Cape  
Private Bag X17  
Bellville 7535





# UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa  
Tel: +27 21-959; Fax: 27 21-959  
E-mail:

## INFORMATION SHEET FOR PARTICIPANTS

**Project Title:** The development, implementation and evaluation of a youth development programme to address health risk behaviour among grade 8 to grade 10 learners in a selected school in the Paarl area

### **What is this study about?**

This is a research project being conducted by Hamilton Pharaoh at the University of the Western Cape. We are inviting you to participate in this research project because you are among grade 8 to grade 10 learners in a selected school in the Paarl area. The purpose of this research project is to develop, implement and evaluate a youth development programme to address health risk behaviour.

### **What will I be asked to do if I agree to participate?**

You will be asked to complete questionnaires pertaining to health risk behaviour (the Youth Risk Behaviour Surveillance Survey (YRBSS) and the Life Effective Questionnaire (LEQ) and when selected participate in focus group discussions. The questionnaires will take approximately 30-45 minutes to complete and the focus group discussion will include participants of the same age with equal male and female representation. The grade 8-10 learners of one school will then be selected to participate in the youth development programme that will run for a period of 6 months. It will be required of those participants who become part of the youth development programme to complete questionnaires 6 months and 12 months post the completion of the programme.

### **Would my participation in this study be kept confidential?**

We will do our best to keep your personal information confidential. To help protect your confidentiality all information gathered will be stored in a locked filing cabinet. The school (Principals and teachers) at the school or any unauthorised party will not be able to access the information. If we write a report or article about this research project, your identity will be protected to the maximum extent possible. Participants in the focus group discussion will sign a disclosure statement for confidentiality purposes to make them conscious of the ethical procedures in advance. In accordance with legal requirements and/or professional standards, we will disclose to the appropriate individuals and/or authorities information that comes to our attention concerning child abuse or neglect or potential harm to you or others. Data collected will be disseminated in the form of publications and conference presentations.

**What are the risks of this research?**

There are no known risks associated with participating in this research project.

**What are the benefits of this research?**

This research is designed to help you personally when you and your school are chosen to participate in the youth development programme whereby life skills training will form part of the programme. The results may also help the investigator to learn more about the effects of the youth development programme as well as the health risk behaviour learners in grade 8-10 partake in as well as the barriers that prevent health risk behaviour change to take place.

**Do I have to be in this research and may I stop participating at any time?**

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.

**Is any assistance available if I am negatively affected by participating in this study?**

There are no direct risks associated with participating in the study. However, you will be referred to an appropriate health professional, should you feel emotional or overwhelmed as a result of questioning or inability to perform a task.

**What if I have questions?**

This research is being conducted by *Hamilton Pharaoh* at the University of the Western Cape. If you have any questions about the research study itself, please contact Hamilton Pharaoh at: work number 021-9593862 or cell 0764551242, e-mail: [hpharaoh@uwc.ac.za](mailto:hpharaoh@uwc.ac.za)

Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact: Head of the Physiotherapy Department: Prof. Julie Phillips (e-mail: [jphillips@uwc.ac.za](mailto:jphillips@uwc.ac.za))

or

Dean of the Faculty of Community and Health Sciences:  
Prof. Rathe Mpofu (e-mail: [mpofu@uwc.ac.za](mailto:mpofu@uwc.ac.za))  
University of the Western Cape  
Private Bag X17  
Bellville 7535



# UNIVERSITY OF THE WESTERN CAPE

Private Bag X 17, Bellville 7535, South Africa  
Tel: +27 21-959, Fax: 27 21-959  
E-mail:

## Appendix G

### PERMISSION FORM LEARNER –NON DISCLOSURE FOCUS GROUPS

#### Title of the Research Project

The development, implementation and evaluation of a youth development program which addresses health risk behaviour in grade 8 to 10 learners in selected schools in the Paarl area.

The study was explained to me in a language I understand and I hereby give permission for my participation in the study. My questions of the study were answered to my satisfaction. I understand that my identity will remain confidential and that I can withdraw from the study at any time without reason. Withdrawal from the study will not have any negative impact on me.

The research project involves the recording of my conversations during the focus group discussions. Your privacy will be protected by storing the said recording in a locked archive which is only accessible by the researcher. I am further thoroughly aware of the fact that the information shared during group discussions, are not to be made available to other parties and by signing this agreement I agree to keep the said information confidential.

I give permission that my conversations may be recorded during my participation in the study. ☐

I do not give permission that my conversations may be recorded during my participation in the study. ☐

## APPENDIX G

## **Review title**

Review title: Review Protocol

## **Reviewers**

Primary reviewer Hamilton Pharaoh PHD student

University of the Western Cape

[hpharaoh@uwc.ac.za](mailto:hpharaoh@uwc.ac.za)

Dr Mario Smith

University of the Western Cape

[mrsmith@uwc.ac.za](mailto:mrsmith@uwc.ac.za)

## **Review question/objective**

The quantitative objective/s is/are to identify the effectiveness of #state intervention#:  
on #state outcome#

More specifically, the objectives are to identify:

To determine the content of school-based interventions reported in literature and its effectiveness in reducing or delaying health risk behaviours amongst the youth.

## **Background**

This phase of the study incorporated a systematic review methodology. A systematic review is a "high-level overview of primary research on a particular research question that tries to identify, select, synthesize and appraise all high quality research evidence relevant to that question in order to answer it" (Cochrane Collaboration, 2013). This is an appropriate methodology for the current research question as it provided a systematic summation of studies reporting on the content and

methodological rigour which is exactly what is lacking in current research on the topic. A systematic review will enable the researchers to compile and synthesize data from all relevant sources meeting the inclusion criteria, whilst minimizing the influence of bias, in an effort to effectively answer the proposed research question.

#### Inclusion Criteria:

Types of studies: The review considered quantitative studies. Experimental and quasi-experimental designs were considered for inclusion in a narrative summary to enable the identification of current best evidence regarding the use of a youth development program to combat health risk behaviours in sub-Saharan Africa.

Studies were eligible for inclusion if they reported on interventions with youth. These interventions had to address health risk behaviours in some way and must have been school-based.

Types of participants: This review considered studies that included adolescents, specifically learners in high schools.

#### Exclusion Criteria:

Studies were excluded if they are not peer-reviewed, were not published within the designated time period, or were not found in one of the listed databases or in the reference lists of related articles. Studies were also be excluded if they do not meet the criteria needed to answer the proposed research question. Therefore all studies which did not report on interventions, did not address health risk behaviours, were not school-based, or did not include our target population were excluded. We also excluded articles that required payment for viewing or accessing the full text i.e. those that were not in the public domain.

Time period: 2002- June 2013



Review aims: The aim of the systematic review was to identify the empirical evidence about the content of school-based intervention programmes for preventing, delaying and reducing engagement in health risk behaviours amongst adolescents.

The review focused on:

1. Target group: Secondary school learners
2. Foci of programme content
  - a. Theoretical orientation or underpinning
  - b. Scope of the interventions
  - c. Nature of intervention activities
  - d. Facilitation styles
3. Methodological rigour and design
4. Empirical evidence e.g. of efficacy

#### 2.4.3 Methods and strategies

##### Search Strategy:

The search strategy aimed to find published studies. A three-step search strategy was utilized in this review. An initial limited search of Cochrane and CINAHL was undertaken followed by analysis of the text words contained in the title abstract, and of the index terms used to describe the article. A second search using all identified keywords and index terms was then undertaken across identified databases. Thirdly, the reference lists of all identified reports and articles were searched for additional studies.

The databases that were included were:

- Cochrane
- CINAHL



- BioMed Central
- Pubmed
- PsychArticles
- Science Direct
- SportsDiscus
- SA ePublications
- ERIC
- EpscoHost
- o Academic Search Complete
- o Education Source
- o Medline
- o Rehabilitation and Sports Medicine Source
- o SocIndex
- o Womens Studies international
- o EducationSource



The initial keywords to be used in the three-step review strategy will be: Youth development programme, Health risk behaviour, Life skills training, school based intervention.

This review utilized a 3 step search process: Title search, Abstract search, and Full text assessment

Title Search: This was conducted at the University of the Western Cape. During the initial title search independent reviewers worked in pairs to select papers for inclusion based solely on the perceived relevance of the title. Information for all the selected titles was recorded in the title summary table.

Abstract Assessment: The abstracts of all articles included during the title search were distributed amongst reviewers. Reviewers worked in pairs, reading the abstracts independently and then deciding as a pair on inclusion or exclusion.

Full Text Assessment: Papers selected for retrieval were assessed by groups of independent reviewers for methodological rigour prior to inclusion in the review using a self-constructed critical appraisal tool. There were three groups consisting of four to five reviewers each. Assessment of the articles was done independently and then discussed within the small groups. Final scores for each article had to be agreed upon by all group members.

We made use of verification by working in pairs and groups and the second supervisor acted as a control to verify all decisions made at all stages of the review process.



Method of the review:

Total number of reviewers: 2

How was disagreement managed: Any disagreement that arose between the reviewers was resolved through discussion with the supervisor. The supervisor acted as a third party control, helping reviewers to reach a consensus when they differed in opinion.

Instruments: - Four instruments were used, all of which were self-constructed tools.

1. Title summary/ extraction sheet – This sheet was self-constructed by the supervisor. The information of all titles suggested for inclusion in the study was imported into the title summary sheet. Reviewers worked in pairs to record this



information and subsequently e-mailed the completed sheets to the supervisor who collated the final composite list.

2. Abstract summary/ extraction sheet – The information of all articles passing the abstract assessment phase was recorded in this summary sheet. Information regarding reasons for exclusion was also included. The completed sheets were submitted to the supervisor who verified the accuracy and compiled the composite list.

3. Critical appraisal tool- The original tool was constructed by the supervisor. It was then tested by the reviewers to assess ease of administration, logical coherence and content sufficiency when used with full text articles. The tool was then refined by the supervisor, based on the feedback given by the reviewers. All full text articles were then re-assessed using the updated tool. Reviewers worked in small groups ranging from four to five members. The tool was administered independently by each group member. Reviewers then had to discuss the findings and reach a common consensus regarding the final scores for inclusion in line with the threshold scoring. Due to the nature of the study all articles which were not school-based, did not focus on our target group, or was not an intervention study, were immediately excluded. After the initial exclusions, the methodological rigour of all articles was assessed, focusing largely on areas such as information pertaining the purpose and nature of the study, sampling, instruments used, data analysis, and ethical considerations. There was a relatively high level of agreement among reviewers during this process. All discrepancies or disagreements were dealt with by discussion among group members. In cases where consensus could not be reached among group members, the supervisor acted as an executive ombudsman.

Threshold scores: Each article had the potential to score weak (0-40%), moderate (41-60%), strong (61-80%), or excellent (81-100%). The lowest threshold score necessary for inclusion was "strong". This was done to ensure that a sufficient amount of articles would be included in the study and was later changed when all reviewers and the supervisor realized we had a sufficient amount of articles rated "strong" or higher and could afford to increase the threshold for inclusion without compromising the study.

4. Data extraction sheet – All articles which were included during the full text assessment were distributed amongst reviewers for data extraction. Each reviewer extracted data from one article. Data extraction was done using a self constructed data extraction table. The table was originally one table split into four main sections, "General Description", "Intervention", "Methodological Appraisal" and "Analysis and Results" but for ease of use this was split into four separate tables, with each table representing one of the four main headings. Under each main heading were relevant sub-headings. All completed tables were sent to the small group leaders who imported all of the group's information into one table. All group leaders then sent the completed tables to the supervisor. Once the supervisor had checked the tables for accuracy, he distributed the completed tables to all reviewers. Reviewers used the completed tables to write their final reports.

For copies of all instruments used, see appendices.

## APPENDIX I

[illegible]

## APPENDIX I

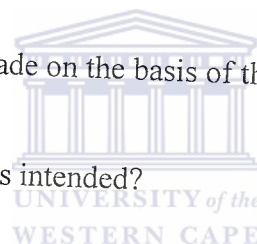
[illegible]

## APPENDIX J: QUALITATIVE CRITICAL APPRAISAL TOOL

### A PURPOSE OF THE MEASURE:

(Maximum score = 18).

- |    |  |                     |
|----|--|---------------------|
| 1) | Did they comment on the purpose of the measure?  | No<br>1<br>Yes<br>2 |
| 2) | Did they specify what attribute/ characteristic, construct will be measured?   | No<br>1<br>Yes<br>2 |
| 3) | Did they state whether the measure is to be used for screening purposes or in-depth diagnostic assessment?                                     | No<br>1<br>Yes<br>2 |
| 4) | Did they explain what type of decisions could be made on the basis of the test scores?   | No<br>1<br>Yes<br>2 |
| 5) | Did they specify for which population the measure is intended?   | No<br>1<br>Yes<br>2 |
| 6) | Did they state whether it is a normative or criterion referenced measure?  | No<br>1<br>Yes<br>2 |
| 7) | Was the construct(s) theoretically defined? (did the researcher undertake a thorough literature study to define the construct)                 | No<br>1<br>Yes<br>2 |
| 8) | Was the construct operationally defined? (how construct will be measured, domains identified for measuring)                                    | No<br>1<br>Yes<br>2 |
| 9) | Did they report on the methodology used to derive an operational definition (focus groups and individual interviews with various role players) | No<br>1<br>Yes<br>2 |



## B: METHODOLOGICAL RIGOUR

(Maximum score = 32).

- 10) Is methodology clear and non-ambiguous? Do the study report on: reliability, construct validity, criterion validity )
- |    |     |
|----|-----|
| No | Yes |
| 1  | 2   |
- 11) Did the researcher report on how they selected specific items?
- |    |     |
|----|-----|
| No | Yes |
| 1  | 2   |
- 12) Did the researcher comment on assembling of the items? (arranging items, finalising length of test)
- |    |     |
|----|-----|
| No | Yes |
| 1  | 2   |
- 13) Did the researcher comment on development of administration instructions?
- |    |     |
|----|-----|
| No | Yes |
| 1  | 2   |
- 14) Did the researcher pilot the test?
- |    |     |
|----|-----|
| No | Yes |
| 1  | 2   |
- 15) Were results evaluated in terms of items (difficulty, discriminating power, bias?)
- |    |     |
|----|-----|
| No | Yes |
| 1  | 2   |
- 16) Was there feedback on revision of test and item content?
- |    |     |
|----|-----|
| No | Yes |
| 1  | 2   |
- 17) Was there feedback on standardisation of administration procedures?
- |    |     |
|----|-----|
| No | Yes |
| 1  | 2   |
- 18) Did the researcher make use of expert opinion (reviewers) to validate the test:
- |    |     |
|----|-----|
| No | Yes |
| 1  | 2   |

- 19) Did the reviewers comment on cultural, linguistic and gender appropriateness?  
 No Yes  
 1 2 (one aspect) 3 (2 aspects), 4 (more than three aspects)  
 Were the items reviewed by means of expert reviewers for content?  
 No Yes  
 1 2
- 21) Were the items reviewed by means of expert reviewers for construct?  
 No Yes  
 1 2
- 22) Were the psychometric properties of the final version established?  
 i. *Reliability*: (internal consistency or test-retest or inter-rater reliability)  
 No Yes  
 1 2  
 ii. *Validity*:  
 No Yes  
 1 2 (face validity) 3 construct validity 4 criterion validity  
 Was proper guide for interpretation developed?  
 No Yes  
 1 2
- 24) Was a test manual compiled?  
 No Yes  
 1 2

### C: GENERAL CONSIDERATIONS:

#### Quality of information

(Maximum score = 14).

- 25) How long ago was the test developed?  
 > 20 years ago < 10 years ago < 5 years ago  
 1 2 3
- 26) How is the sample defined? Is it a probability or non-probability sample?  
 Not mentioned Probability Non-probability  
 1 2 3

**Hint:** If it is non-probability sampling, did they test the sample to see if it fits the criteria. Did they report on it? (Then it qualifies for 2)



27) Is the sample size greater than 50? If not, is a formula computed to help with sample size?

No	Yes
1	2

**Hint:** If no, is a formula computed to help with sample size. If yes, allocate 2.

28) Does it mention the unique multi-cultural context of South Africa (test bias)?

No	Yes
1	2

29) Is it clear that there might be more relevant assessment measures?

No	Yes
1	2

**Hint:** Does the authors mention that other measures might exist?

30) Do the authors refer to the relevant legislation related to psychological assessment practises in South Africa?

No	Yes
1	2

**Hint:** Child care act (38 of 2005), Bill or Rights (108 of 1996), Health Professionals Act (56 of 1974).

## C: OVERALL RATING OF THE PUBLICATION

Based on the answers to all of the above questions, rate the overall quality of the publications as a source of valid and reliable information about the research question (social-emotional competence and the measurement thereof).

A: Score of at least 50% thus 9/18      B: Score of at least 50% thus 16/32      C: Score of at least 50% thus 7/14

Overall: Minimum score of 32

Threshold approach principles:

Acceptable articles: overall research/ analyses seem to be well conducted, samples seem to be well defined and representative, nature of the study well described, outcome variables clear, within the time period defined, and tools seems to meet psychometric criteria (external validity – can the results be generalised to the South African population and reliability – does it measure what it is suppose to measure?).

Non-acceptable articles: poorly conducted studies, small non-representative samples, incomplete and ambiguous methods and tools do not meet psychometric criteria.



# YOUTH RISK BEHAVIOUR SURVEY (YRBS)

## INTRODUCTION

### Youth Risk Behaviour Survey

This survey is about health behaviour. It has been developed so you can tell us what you do that may affect your health. The information you give will be used to improve health education for young people like yourself.

DO NOT write your name on this survey. The answers you give will be kept private. No one will know what you write. Answer the questions based on what you really do.

Completing the survey is voluntary. Whether or not you answer the questions will not affect your grade in this class. If you are not comfortable answering a question, just leave it blank.

The questions that ask about your background will be used only to describe the types of students completing this survey. The information will not be used to find out your name. No names will ever be reported.

Make sure to read every question. Fill in the ovals completely. When you are finished, follow the instructions of the person giving you the survey.

*Thank you very much for your help.*

## Section A: Some information about yourself

1. **How old are you?**
  - A. 12 years old or younger
  - B. 13 years old
  - C. 14 years old
  - D. 15 years old
  - E. 16 years old
  - F. 17 years old
  - G. 18 years old or older
2. **What is your sex?**
  - A. Female
  - B. Male
3. **In what grade are you?**
  - A. 8th grade
  - B. 9th grade
  - C. 10th grade
4. **What is your race group?**
  - A. Black
  - B. Coloured
  - C. Indian
  - D. White
  - E. Other



6. **How tall are you without your shoes on?**  
**Directions: Write your height in the spaces below.**

Height

Metres \_\_\_\_\_

Centimetres \_\_\_\_\_

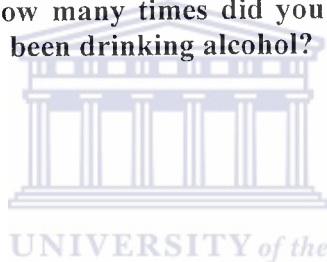
7. **How much do you weigh without your shoes on?**  
**Directions: Write your weight in the spaces below.**

Weight

Kilograms \_\_\_\_\_

**Section B: following questions are about personal safety.**

8. When you rode a bicycle during the past 12 months, how often did you wear a helmet?
- A. I did not ride a bicycle during the past 12 months
  - B. Never wore a helmet
  - C. Rarely wore a helmet
  - D. Sometimes wore a helmet
  - E. Most of the time wore a helmet
  - F. Always wore a helmet
9. How often do you wear a seat belt when riding in a car driven by someone else?
- A. Never
  - B. Rarely
  - C. Sometimes
  - D. Most of the time
  - E. Always
10. During the past 30 days, how many times did you ride in a car or other vehicle driven by someone who had been drinking alcohol?
- A. 0 times
  - B. 1 time
  - C. 2 or 3 times
  - D. 4 or 5 times
  - E. 6 or more times
11. During the past 30 days, how many times did you drive a car or other vehicle when you had been drinking alcohol?
- A. 0 times
  - B. 1 time
  - C. 2 or 3 times
  - D. 4 or 5 times
  - E. 6 or more times



**Section C: The following questions are about violence-related behaviour.**

12. During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club?
- A. 0 days
  - B. 1 day
  - C. 2 or 3 days
  - D. 4 or 5 days
  - E. 6 or more days
13. During the past 30 days, on how many days did you carry a gun?
- A. 0 days
  - B. 1 day
  - C. 2 or 3 days
  - D. 4 or 5 days
  - E. 6 or more days
14. During the past 30 days, on how many days did you carry a weapon such as a gun, knife, or club on school property?
- A. 0 days
  - B. 1 day
  - C. 2 or 3 days
  - D. 4 or 5 days
  - E. 6 or more days
15. During the past 30 days, on how many days did you not go to school because you felt you would be unsafe at school or on your way to or from school?
- A. 0 days
  - B. 1 day
  - C. 2 or 3 days
  - D. 4 or 5 days
  - E. 6 or more days
16. During the past 12 months, how many times has someone threatened or injured you with a weapon such as a gun, knife, or club on school property?
- A. 0 times
  - B. 1 time
  - C. 2 or 3 times
  - D. 4 or 5 times
  - E. 6 or 7 times
  - F. 8 or 9 times
  - G. 10 or 11 times
  - H. 12 or more times



17. During the past 12 months, how many times were you in a physical fight?
- A. 0 times
  - B. 1 time
  - C. 2 or 3 times
  - D. 4 or 5 times
  - E. 6 or 7 times
  - F. 8 or 9 times
  - G. 10 or 11 times
  - H. 12 or more times
18. During the past 12 months, how many times were you in a physical fight in which you were injured and had to be treated by a doctor or nurse?
- A. 0 times
  - B. 1 time
  - C. 2 or 3 times
  - D. 4 or 5 times
  - E. 6 or more times
19. During the past 12 months, how many times were you in a physical fight on school property?
- A. 0 times
  - B. 1 time
  - C. 2 or 3 times
  - D. 4 or 5 times
  - E. 6 or 7 times
  - F. 8 or 9 times
  - G. 10 or 11 times
  - H. 12 or more times
20. During the past 12 months, did your boyfriend or girlfriend ever hit, slap, or physically hurt you on purpose?
- A. Yes
  - B. No
21. Have you ever been physically forced to have sexual intercourse when you did not want to?
- A. Yes
  - B. No



**Section D: The next question asks about bullying. Bullying is when 1 or more students tease, threaten, spread rumors about, hit, shove, or hurt another student over and over again. It is not bullying when 2 students of about the same strength or power argue or fight or tease each other in a friendly way.**

22. During the past 12 months, have you ever been bullied on school property?
- A. Yes
  - B. No
23. During the past 12 months, have you ever been electronically bullied?(including being bullied through e-mail, chat rooms, instant messaging, Web sites, or texting.)
- A. Yes
  - B. No

**Section E: The following questions are about sad feelings and attempts at suicide. Sometimes people feel so depressed about the future that they may consider attempting suicide, that is, taking some action to end their own life.**

24. During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?
- A. Yes
  - B. No
25. During the past 12 months, did you ever seriously consider attempting suicide?
- A. Yes
  - B. No
26. During the past 12 months, did you make a plan about how you would attempt suicide?
- A. Yes
  - B. No
27. During the past 12 months, how many times did you actually attempt suicide?
- A. 0 times
  - B. 1 time
  - C. 2 or 3 times
  - D. 4 or 5 times
  - E. 6 or more times
28. If you attempted suicide during the past 12 months, did any attempt result in an

**injury, poisoning, or overdose that had to be treated by a doctor or nurse?**

- A. **I did not attempt suicide** during the past 12 months
- B. Yes
- C. No

**Section F: The following questions are about smoking.**

**29. Have you ever tried cigarette smoking, even one or two puffs?**

- A. Yes
- B. No

**30. How old were you when you smoked a whole cigarette for the first time?**

- A. I have never smoked a whole cigarette
- B. 8 years old or younger
- C. 9 or 10 years old
- D. 11 or 12 years old
- E. 13 or 14 years old
- F. 15 or 16 years old
- G. 17 years old or older

**31. During the past 30 days, on how many days did you smoke cigarettes?**

- A. 0 days
- B. 1 or 2 days
- C. 3 to 5 days
- D. 6 to 9 days
- E. 10 to 19 days
- F. 20 to 29 days
- G. All 30 days



**32. During the past 30 days, on the days you smoked, how many cigarettes did you smoke per day?**

- A. I did not smoke cigarettes during the past 30 days
- B. Less than 1 cigarette per day
- C. 1 cigarette per day
- D. 2 to 5 cigarettes per day
- E. 6 to 10 cigarettes per day
- F. 11 to 20 cigarettes per day
- G. More than 20 cigarettes per day

**33. During the past 30 days, how did you usually get your own cigarettes?**

**(Select only one response.)**

- A. I did not smoke cigarettes during the past 30 days
- B. I bought them in a store such as a convenience store, supermarket, discount store, or gas station
- C. I bought them from a vending machine
- D. I gave someone else money to buy them for me
- E. I borrowed (or bummed) them from someone else
- F. A person 18 years old or older gave them to me
- G. I took them from a store or family member
- H. I got them some other way

**34. During the past 30 days, on how many days did you smoke cigarettes on school property?**

- A. 0 days
- B. 1 or 2 days
- C. 3 to 5 days
- D. 6 to 9 days
- E. 10 to 19 days
- F. 20 to 29 days
- G. All 30 days

**35. Have you ever smoked cigarettes daily, that is, at least one cigarette every day for 30 days?**

- A. Yes
- B. No

**36. During the past 12 months, did you ever try to quit smoking cigarettes?**

- A. I did not smoke during the past 12 months
- B. Yes
- C. No

**37. During the past 30 days, on how many days did you use chewing tobacco, snuff, or dip, such as Redman, Levi Garrett, Beechnut, Skoal, Skoal Bandits, or Copenhagen?**

- A. 0 days
- B. 1 or 2 days
- C. 3 to 5 days
- D. 6 to 9 days
- E. 10 to 19 days
- F. 20 to 29 days
- G. All 30 days





38. During the past 30 days, on how many days did you use chewing tobacco, snuff, or dip on school property?
- A. 0 days
  - B. 1 or 2 days
  - C. 3 to 5 days
  - D. 6 to 9 days
  - E. 10 to 19 days
  - F. 20 to 29 days
  - G. All 30 days
39. During the past 30 days, on how many days did you smoke cigars, cigarillos, or little cigars?
- A. 0 days
  - B. 1 or 2 days
  - C. 3 to 5 days
  - D. 6 to 9 days
  - E. 10 to 19 days
  - F. 20 to 29 days
  - G. All 30 days

Section G: The following questions are about drinking alcohol. This includes drinking beer, wine, cider, and spirits such as brandy, gin, vodka, or whiskey. For these questions, drinking alcohol does not include drinking a few sips of wine for religious purposes.

40. During your life, on how many days have you had at least one drink of alcohol?
- A. 0 days
  - B. 1 or 2 days
  - C. 3 to 9 days
  - D. 10 to 19 days
  - E. 20 to 39 days
  - F. 40 to 99 days
  - G. 100 or more days
41. How old were you when you had your first drink of alcohol other than a few sips?
- A. I have never had a drink of alcohol other than a few sips
  - B. 8 years old or younger
  - C. 9 or 10 years old
  - D. 11 or 12 years old
  - E. 13 or 14 years old
  - F. 15 or 16 years old
  - G. 17 years old or older

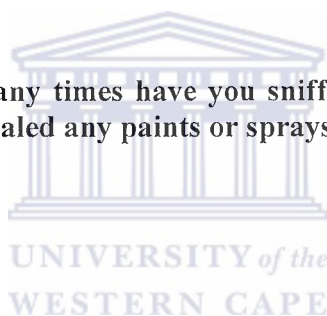
42. During the past 30 days, on how many days did you have at least one drink of alcohol?
- A. 0 days
  - B. 1 or 2 days
  - C. 3 to 5 days
  - D. 6 to 9 days
  - E. 10 to 19 days
  - F. 20 to 29 days
  - G. All 30 days
43. During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is, within a couple of hours?
- A. 0 days
  - B. 1 day
  - C. 2 days
  - D. 3 to 5 days
  - E. 6 to 9 days
  - F. 10 to 19 days
  - G. 20 or more days
44. During the past 30 days, how did you usually get the alcohol you drank?
- A. I did not drink alcohol during the past 30 days
  - B. I bought it in a store such as a liquor store, convenience store, supermarket, discount store, or gas station
  - C. I bought it at a restaurant, bar, or club
  - D. I bought it at a public event such as a concert or sporting event
  - E. I gave someone else money to buy it for me
  - F. Someone gave it to me
  - G. I took it from a store or family member
  - H. I got it some other way
45. During the past 30 days, on how many days did you have at least one drink of alcohol on school property?
- A. 0 days
  - B. 1 or 2 days
  - C. 3 to 5 days
  - D. 6 to 9 days
  - E. 10 to 19 days
  - F. 20 to 29 days
  - G. All 30 days

**Section H: The following questions ask about dagga/hashish (marijuana) use.**  
**Dagga/hashish (marijuana) also is called zol or ganja.**

- 46. During your life, how many times have you used dagga/hashish (marijuana)?**
- A. 0 times
  - B. 1 or 2 times
  - C. 3 to 9 times
  - D. 10 to 19 times
  - E. 20 to more times
- 47. How old were you when you tried marijuana for the first time?**
- A. I have never tried dagga/hashish (marijuana)
  - B. 8 years old or younger
  - C. 9 or 10 years old
  - D. 11 or 12 years old
  - E. 13 or 14 years old
  - F. 15 or 16 years old
  - G. 17 years old or older
- 48. During the past 30 days, how often did you use dagga/hashish (marijuana)?**
- A. Never (0 days)
  - B. Rarely (1 to 5 days)
  - C. Sometimes (6 to 9 days)
  - D. Often (10 to 19 days)
  - E. Very often (20 to 30 days)
- 49. During the past 30 days, how many times did you use dagga/hashish (marijuana) on school property?**
- A. Never (0 days)
  - B. Rarely (1 to 5 days)
  - C. Sometimes (6 to 9 days)
  - D. Often (10 to 19 days)
  - E. Very often (20 to 30 days)

**Section I: The following questions ask about drug use.**

50. During your life, how many times have you used any form of cocaine, including powder, crack, or freebase?
- A. 0 times
  - B. 1 or 2 times
  - C. 3 to 9 times
  - D. 10 to 19 times
  - E. 20 to 39 times
  - F. 40 or more times
51. During the past 30 days, how many times did you use any form of cocaine, including powder, crack, or freebase?
- A. 0 times
  - B. 1 or 2 times
  - C. 3 to 9 times
  - D. 10 to 19 times
  - E. 20 to 39 times
  - F. 40 or more times
52. During your life, how many times have you sniffed glue, breathed the contents of aerosol spray cans, or inhaled any paints or sprays to get high?
- A. 0 times
  - B. 1 or 2 times
  - C. 3 to 9 times
  - D. 10 to 19 times
  - E. 20 to 39 times
  - F. 40 or more times
53. During your life, how many times have you used heroin (also called smack, junk, or China White)?
- A. 0 times
  - B. 1 or 2 times
  - C. 3 to 9 times
  - D. 10 to 19 times
  - E. 20 to 39 times
  - F. 40 or more times
54. During your life, how many times have you used methamphetamines (also called speed, crystal, crank, or ice)?
- A. 0 times
  - B. 1 or 2 times
  - C. 3 to 9 times
  - D. 10 to 19 times
  - E. 20 to 39 times
  - F. 40 or more times

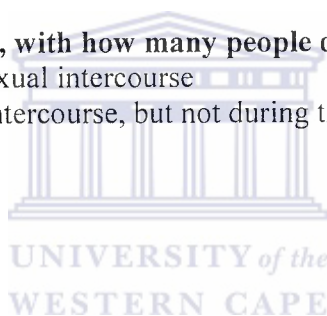


55. During your life, how many times have you used ecstasy (also called MDMA)?
- A. 0 times
  - B. 1 or 2 times
  - C. 3 to 9 times
  - D. 10 to 19 times
  - E. 20 to 39 times
  - F. 40 or more times
56. During your life, how many times have you steroid pills or shots without a doctor's prescription?
- A. 0 times
  - B. 1 or 2 times
  - C. 3 to 9 times
  - D. 10 to 19 times
  - E. 20 to 39 times
  - F. 40 or more times
57. During your life, how many times have you taken a prescription drug (such as OxyContin, Percocet, Vicodin, Codeine, Adderall, Ritalin, or Xanax) without a doctor's prescription?
- A. 0 times
  - B. 1 or 2 times
  - C. 3 to 9 times
  - D. 10 to 19 times
  - E. 20 to 39 times
  - F. 40 or more times
58. During your life, how many times have you used a needle to inject any illegal drug into your body?
- A. 0 times
  - B. 1 time
  - C. 2 or more times
59. During the past 12 months, has anyone offered, sold, or given you an illegal drug on school property?
- A. Yes
  - B. No

**Section J: The following questions are about your sexual behaviour.**

60. Have you ever had sexual intercourse?
- A. Yes
  - B. No
  - C.

61. **How old were you when you had sexual intercourse for the first time?**
- A. I have never had sexual intercourse
  - B. 11 years old or younger
  - C. 12 years old
  - D. 13 years old
  - E. 14 years old
  - F. 15 years old
  - G. 16 years old
  - H. 17 years old or older
62. **During your life, with how many people have you had sexual intercourse?**
- A. I have never had sexual intercourse
  - B. 1 person
  - C. 2 people
  - D. 3 people
  - E. 4 people
  - F. 5 people
  - G. 6 or more people
63. **During the past 3 months, with how many people did you have sexual intercourse?**
- A. I have never had sexual intercourse
  - B. I have had sexual intercourse, but not during the past 3 months
  - C. 1 person
  - D. 2 people
  - E. 3 people
  - F. 4 people
  - G. 5 people
  - H. 6 or more people
64. **Did you drink alcohol or use drugs before you had sexual intercourse the last time?**
- A. I have never had sexual intercourse
  - B. Yes
  - C. No
65. **The last time you had sexual intercourse, did you or your partner use a condom?**
- A. I have never had sexual intercourse
  - B. Yes
  - C. No



66. The last time you had sexual intercourse, what one method did you or your partner use to prevent pregnancy? (Select only one response.)
- A. I have never had sexual intercourse
  - B. No method was used to prevent pregnancy
  - C. Birth control pills
  - D. Condoms
  - E. Depo-Provera (injectable birth control)
  - F. Withdrawal
  - G. Some other method
  - H. Not sure

**Section K: The following questions are about body weight.**

67. How do you describe your weight?
- A. Very underweight
  - B. Slightly underweight
  - C. About the right weight
  - D. Slightly overweight
  - E. Very overweight
68. Which of the following are you trying to do about your weight?
- A. Lose weight
  - B. Gain weight
  - C. Stay the same weight
  - D. I am not trying to do anything about my weight
69. During the past 30 days, did you go without eating for 24 hours or more (also called fasting) to lose weight or to keep from gaining weight?
- A. Yes
  - B. No
70. During the past 30 days, did you take any diet pills, powders, or liquids without a doctor's advice to lose weight or to keep from gaining weight? (Do not include meal replacement products such as Slim Fast.)
- A. Yes
  - B. No
71. During the past 30 days, did you vomit or take laxatives to lose weight or to keep from gaining weight?
- A. Yes
  - B. No

**Section L:** The following questions ask about food you ate or drank during the past 7 days. Think about all the meals and snacks you had from the time you got up until you went to bed. Be sure to include food you ate at home, at school, at restaurants, or anywhere else.

72. During the past 7 days, how many times did you drink 100% fruit juices such as orange juice, apple juice, or grape juice? (Do not count punch, Kool-Aid, sports drinks, or other fruit-flavored drinks.)
- A. I did not drink 100% fruit juice during the past 7 days
  - B. 1 to 3 times during the past 7 days
  - C. 4 to 6 times during the past 7 days
  - D. 1 time per day
  - E. 2 times per day
  - F. 3 times per day
  - G. 4 or more times per day
73. During the past 7 days, how many times did you eat fruit? (Do not count fruit juice.)
- A. I did not eat fruit during the past 7 days
  - B. 1 to 3 times during the past 7 days
  - C. 4 to 6 times during the past 7 days
  - D. 1 time per day
  - E. 2 times per day
  - F. 3 times per day
  - G. 4 or more times per day
74. During the past 7 days, how many times did you eat green salad?
- A. I did not eat green salad during the past 7 days
  - B. 1 to 3 times during the past 7 days
  - C. 4 to 6 times during the past 7 days
  - D. 1 time per day
  - E. 2 times per day
  - F. 3 times per day
  - G. 4 or more times per day
75. During the past 7 days, how many times did you eat potatoes? (Do not count french fries, fried potatoes, or potato chips.)
- A. I did not eat potatoes during the past 7 days
  - B. 1 to 3 times during the past 7 days
  - C. 4 to 6 times during the past 7 days
  - D. 1 time per day
  - E. 2 times per day
  - F. 3 times per day
  - G. 4 or more times per day



76. **During the past 7 days, how many times did you eat carrots?**
- A. I did not eat carrots during the past 7 days
  - B. 1 to 3 times during the past 7 days
  - C. 4 to 6 times during the past 7 days
  - D. 1 time per day
  - E. 2 times per day
  - F. 3 times per day
  - G. 4 or more times per day
77. **During the past 7 days, how many times did you eat other vegetables? (Do not count green salad, potatoes, or carrots.)**
- A. I did not eat other vegetables during the past 7 days
  - B. 1 to 3 times during the past 7 days
  - C. 4 to 6 times during the past 7 days
  - D. 1 time per day
  - E. 2 times per day
  - F. 3 times per day
  - G. 4 or more times per day
78. **During the past 7 days, how many times did you drink a can, bottle, or glass of soda or pop, such as Coke, Pepsi, or Sprite? (Do not include diet soda or diet pop.)**
- A. I did not drink soda or pop during the past 7 days
  - B. 1 to 3 times during the past 7 days
  - C. 4 to 6 times during the past 7 days
  - D. 1 time per day
  - E. 2 times per day
  - F. 3 times per day
  - G. 4 or more times per day

**Section M: The following questions ask about physical activity.**

79. **During the past 7 days, on how many days were you physically active for a total of at least 60 minutes per day? (Add up all the time you spent in any kind of physical activity that increased your heart rate and made you breathe hard some of the time.)**
- A. 0 days
  - B. 1 day
  - C. 2 days
  - D. 3 days
  - E. 4 days
  - F. 5 days
  - G. 6 days
  - H. 7 days

80. On an average school day, how many hours do you watch TV?

- A. I do not watch TV on an average school day
- B. Less than 1 hour per day
- C. 1 hour per day
- D. 2 hours per day
- E. 3 hours per day
- F. 4 hours per day
- G. 5 or more hours per day

81. On an average school day, how many hours do you play video or computer games or use a computer for something that is not school work? (Include activities such as PlayStation, Xbox, Nintendo DS, iPod Touch, Facebook and the Internet.)

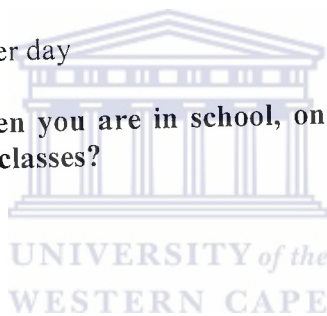
- A. I do not play video or computer games or use a computer for something that is not school work
- B. Less than 1 hour per day
- C. 1 hour per day
- D. 2 hours per day
- E. 3 hours per day
- F. 4 hours per day
- G. 5 or more hours per day

82. In an average week when you are in school, on how many days do you go to physical education (PE) classes?

- A. 0 days
- B. 1 day
- C. 2 days
- D. 3 days
- E. 4 days
- F. 5 days

83. During the past 12 months, on how many sports teams did you play? (Include any teams run by your school or community groups.)

- A. 0 teams
- B. 1 team
- C. 2 teams
- D. 3 or more teams



**Section N: The following questions ask about other health-related topics.**

- 84. Have you ever been taught about AIDS or HIV infection in school?**
- a. Yes
  - b. No
  - c. Not sure
- 85. Has a doctor or nurse ever told you that you have asthma?**
- a. Yes
  - b. No
  - c. Not sure
- 86. Do you still have asthma?**
- a. I have never had asthma
  - b. Yes
  - c. No
  - d. Not sure

**That was the last question!!! Thank you for filling in the questionnaire.**



# PLEASE DO NOT TURN OVER YET

## READ THESE INSTRUCTIONS

This is a chance for you to consider how you think and feel about yourself in some ways. **This is not a test** - there are no right or wrong answers, and everyone will have different responses. It is important that you give your own views and that you be honest in your answers and do not talk to others while you think about your answers. They will be used only for research purposes and will in no way be used to refer to you as an individual at any time.

Over the page are a number of statements that are more or less true (that is like you) or more or less false (that is unlike you). Please use the eight point scale to indicate how true (like you) or how false (unlike you), each statement is as a description of you. **Answer the statements as you feel now**, even if you have felt differently at some other time in your life. Please do not leave any statements blank.

FALSE NOT LIKE ME				TRUE LIKE ME			
1	2	3	4	5	6	7	8
This statement doesn't describe me at all; it isn't like me at all			More false than true		More true than false		This statement describes me very well; it is very much like me.

### SOME EXAMPLES

- A. I am a fast thinker.      1   2   3   4   5   **6**   7   8  
 (The 6 has been circled because the person answering believes the statement "I am a fast thinker" is sometimes true. That is, the statement is sometimes like him/her.)
- B. I am a good storyteller.      1   **2**   3   4   5   6   7   8  
 (The 2 has been circled because the person answering believes that the statement is mostly false as far as he/she is concerned. That is, he/she feels he/she does not tell good stories.)
- C I enjoy working on puzzles.      1   2   3   4   5   6   7   **8**  
 (The 8 has been circled because the person really enjoys working on puzzles a great deal, therefore the statement is definitely true about him/her.)

**\*\* ARE YOU SURE WHAT TO DO? \*\***

If yes, then please turn the page over, write your name, today's date, and circle your answers for all the statements.

**If still unsure about what to do, ASK FOR HELP.**

**PLEASE GIVE HONEST, PRIVATE ANSWERS**

# L.E.Q. - H<sup>©</sup>

NAME: \_\_\_\_\_ AGE: \_\_\_\_\_ (years) DATE: \_\_\_\_ / \_\_\_\_ / \_\_\_\_

MALE / FEMALE (circle one) COURSE CODE: \_\_\_\_\_ GROUP: \_\_\_\_\_

STATEMENT	FALSE not like me	TRUE like me
01. I plan and use my time efficiently.	1 2 3 4 5 6 7 8	
02. I am successful in social situations.	1 2 3 4 5 6 7 8	
03. When working on a project, I do my best to get the details right.	1 2 3 4 5 6 7 8	
04. I change my thinking or opinions easily if there is a better idea.	1 2 3 4 5 6 7 8	
05. I can get people to work for me.	1 2 3 4 5 6 7 8	
06. I can stay calm in stressful situations.	1 2 3 4 5 6 7 8	
07. I like to be busy and actively involved in things.	1 2 3 4 5 6 7 8	
08. I know I have the ability to do anything I want to do.	1 2 3 4 5 6 7 8	
09. I do not waste time.	1 2 3 4 5 6 7 8	
10. I am competent in social situations.	1 2 3 4 5 6 7 8	
11. I try to get the best results when I do things.	1 2 3 4 5 6 7 8	
12. I am open to new ideas.	1 2 3 4 5 6 7 8	
13. I am a good leader when a task needs to be done.	1 2 3 4 5 6 7 8	
14. I stay calm and overcome anxiety in new or changing situations.	1 2 3 4 5 6 7 8	
15. I like to be active and energetic.	1 2 3 4 5 6 7 8	
16. When I apply myself to something I am confident I will succeed.	1 2 3 4 5 6 7 8	
17. I manage the way I use my time well.	1 2 3 4 5 6 7 8	
18. I communicate well with people.	1 2 3 4 5 6 7 8	
19. I try to do the best that I possibly can.	1 2 3 4 5 6 7 8	
20. I am adaptable and flexible in my thinking and ideas.	1 2 3 4 5 6 7 8	
21. As a leader I motivate other people well when tasks need to be done.	1 2 3 4 5 6 7 8	
22. I stay calm when things go wrong.	1 2 3 4 5 6 7 8	
23. I like to be an active, 'get into it' person.	1 2 3 4 5 6 7 8	
24. I believe I can do it.	1 2 3 4 5 6 7 8	

**HELEN ALLEN**

**Accredited Professional Text Editor, SATI  
Plain Language Practitioner**

---

34 Heritage Village  
Tzaneen 0850  
Cell : 072 1966900  
Home : 0877 509638  
Email : helanallen11@gmail.com

16 December 2014

**VERIFICATION**

TO WHOM IT MAY CONCERN:

I am a professional text editor, accredited by the South African Translators' (and Editors) Institute (SATI), and a full member of the Professional Editors' Group (PEG).

On 16 December 2014, I completed a linguistic edit of a PHD Thesis written by

**Hamilton Grant Pharaoh**

titled

*The design, implementation and evaluation of a youth development  
programme to combat health risk behaviour among learners  
in grade 8-10 in schools in the Paarl area*



**H P Allen (Mrs)**