



UNIVERSITY of the
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*Pretesting the revised version of the South African Substance Use Contextual Risk
Instrument (SASUCRI)*

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**In partial fulfilment of the requirements for the degree of Masters in Psychology
(Structured) at the University of the Western Cape**

Keywords:

SASUCRI, Pretest, Multi-Component Approach, Sub-Scales, Instrument, Validation,
Standardised and Non-Standard Afrikaans Dialect,

*The financial assistance of the National Research Foundation (NRF) towards the research
is hereby acknowledged. Opinions expressed and conclusions arrived at, are those of the
author and are not necessarily to be attributed to the NRF*

DECLARATION

I declare that the study “**Pretesting the revised version of the South African Substance Use Contextual Risk Instrument (SASUCRI)**” is my own work, that all the sources I have used or quoted have been indicated and acknowledged by means of complete references, and that this work has not been submitted previously in its entirety, or in any part, at any other higher education institution for degree purposes.

.....
SHADLEY HENDRICKS



ABSTRACT

Substance use is a major problem in South Africa, particularly within the Western Cape. The problem of substance use is prominent amongst adolescents in low socio-economic-status communities, and these prevalence rates are increasing. Literature regarding the onset of substance use is often limited and inadequate. It is for this reason that the South African Substance Use Contextual Risk Instrument (SASUCRI) was developed and employed to assess factors which contribute to adolescent substance use. The SASUCRI is a measure of the individual and contextual factors associated with adolescent substance use. It was developed to be used in low socio-economic-status communities to identify adolescents at risk for substance use as well as communities in which these risk factors are present. The initial validation study reports on the validity evidence for this instrument. The initial study identified items to be rewritten to improve the validity of the instrument. It further recommended the inclusion of additional items to improve reliability in some sub-scales. This contributed to the current study. The purpose of this study was to pretest the new and revised items. The researcher pretested both the English and the Afrikaans's revised sub-scales of the SASUCRI. The following sub-scales were pretested; *“School as support”* (6 items), *“School as a stressor”* (6 items), *“Tolerance for soft drugs”* (6 items), *Hopelessness individual* (11 items) and *“Hopelessness community”* (5 items). The theoretical framework employed was the Multi-Component Approach. The framework guided the data collection, analysis and partially the discussion of the findings. The study was of a qualitative nature. Two schools were selected from low socio-economic status communities. The study had 32 high school learners who participated. There were 4 focus groups conducted in total. Each school had 2 focus groups conducted on its premises. At each school, 1 focus group was conducted in Afrikaans and the other in English. A content analysis was used to analyse the data gathered. The findings indicated comprehension issues at item level. Participants expressed that they could not

understand the items that were pretested. Additionally, they argued that the items were unclear as well, which led further to the theme of comprehension. Furthermore, participants identified additional items to be revised, which were not originally selected for the pretesting phase. In addition, the findings for the Afrikaans sub-scales pointed towards a need to contextualize the dialect used in the instrument. These findings identified themes such as colloquialism and translation issues. Lastly, participants provided recommendations for items that needed to be revised.



Acknowledgements

Firstly, I would like to thank God for providing myself with the knowledge and strength to complete this study.

I would like to acknowledge everyone who supported, encouraged and motivated me during the completion of my study; especially my classmate Akhona Nkwanyana, whom has always been there for support and motivation. Additionally, I would like to thank my colleagues (Gail Smith, Liesel Colli, Keagan Williams, Nolubabalo Tshayana & Courtney Titus) at my internship site, whom have provided support in many ways.

To my supervisor, Dr M. Florence, for her supervision and patience throughout this study, I greatly appreciate your assistance and dedication to my development as a researcher. You have provided a platform to discover my passion for research, and for that I will be eternally grateful.

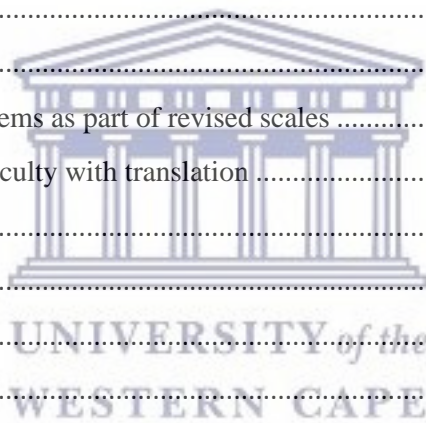
I would also like to thank the National Research Foundation for the financial assistance throughout the project. In addition, I would like to thank all the schools who provided their time and participated in this study. Their contribution made is greatly appreciated.

Lastly, I would like to thank my family and friends for their support and encouragement throughout this journey.

Table of Contents

CHAPTER 1: Introduction	1
1.1. Introduction.....	1
1.2. Contextual Background.....	2
1.3. Development and validation of the SASUCRI	5
1.4. Translation of SASUCRI into Afrikaans	9
1.5. Rationale	10
1.6. Aims and objectives of the study	11
1.7. Overview of thesis	12
CHAPTER 2: Theoretical Framework.....	14
2.1. Introduction.....	14
2.2. Multi-Component Approach.....	15
2.3. Comprehending the question	16
2.4. Retrieval of information.....	17
2.5. Judgement	19
2.6. Response selection.....	20
2.7. Application of Theory.....	21
2.8. Two Track Theory	22
2.9. Conclusion	24
CHAPTER 3: Literature Review	25
3.1. Introduction.....	25
3.2. Types of Pretesting Techniques	26
3.3. Pretesting Studies.....	30
3.4. Conclusion	34
CHAPTER 4: Methodology.....	36
4.1. Introduction.....	36
4.2. Characteristics of Participants.....	37
4.3. Data collection procedure	39
4.4. Data collection tool	40
4.5. Data Analysis	42
4.6. Ethics considerations	43
4.7. Reflexivity.....	44
CHAPTER 5: Results and Discussion	45
5.1. Introduction.....	45

5.2.	English Version.....	45
5.3.	Revised items: English Version of the SASUCRI	47
5.4.	Themes identified.....	47
5.5.	Comprehension	48
5.6.	Lack of clarity	50
5.7.	Pretesting of original items as part of the revised scales.....	53
5.8.	Afrikaans Version	57
5.9.	Items Identified from the Afrikaans Version of the SASUCRI	57
5.10.	Themes Identified	57
5.11.	Comprehension	58
5.12.	Pretesting of original items as part of revised scales	62
5.13.	Colloquialism and difficulty with translation	65
5.14.	Summary of research findings	68
5.15.	Comprehension	68
5.16.	Lack of clarity	69
5.17.	Pretesting of original items as part of revised scales	69
5.18.	Colloquialism and difficulty with translation	70
5.19.	Conclusion	71
CHAPTER 6: Conclusion		72
6.1.	Summary of findings.....	72
6.2.	Limitations	74
6.3.	Recommendations.....	75
6.4.	Conclusion	77
Reference list:		78
Appendix A.....		85
Appendix B		86
Appendix C		87
Appendix D.....		88
Appendix E		88
Appendix F.....		91
Appendix G.....		93
Appendix H.....		94
Appendix I		97
Appendix J		101



Appendix K..... 103
Appendix L 103



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CHAPTER 1: Introduction

1.1. Introduction

The current study formed part of a larger study that explored the association between contextual factors and substance use amongst adolescents from low socio-economic-status communities in the Western Cape. The literature points towards a need to measure the contextual factors that are associated with adolescents' substance use in low socio-economic-status communities in the Western Cape (Florence, 2014). Thus, the SASUCRI was developed to capture these contextual realities from the subjective view point of adolescents. Additionally, the instrument serves as a way of identifying youth and communities at risk of substance use.

The larger study was concerned with factors that contributed to the development of substance use amongst adolescents, specifically factors related to their psycho-social and communities' functionality. The larger study measured the subjective experiences and perceptions of individual and contextual factors that have an impact on the development of adolescents in low socio-economic-status South African communities. Though it would have been easier to measure objective contextual indicators of these influences such as access to adequate housing, lack of education and exposure to violence; the larger study focused on the measurement of adolescents' subjective experience of their own psycho-social and their communities' functioning. This was done to validate the instrument that was developed for this purpose. The purpose of the current study was to pretest the revised subscales of the SASUCRI. This study aimed to pretest 5 out of the 20 sub-scales, of both the English and the Afrikaans version of the SASUCRI. The larger study used Bronfenbrenner's bio-ecological theory to conceptualize the instrument around a range of factors. The theory was used as a framework to identify the dimensions included in the questionnaire and to guide the analysis and interpretation of the

data. One hundred and forty-seven items were written for the original 23 scales. According to Florence (2014), the items were phrased in a manner to tap into how they make sense of their context both cognitively and affectively. The instrument was also designed to tap into a whole range of the individual and contextual factors and processes that formed the system levels within Bronfenbrenner's ecological theory.

Regarding the current study, a different theoretical framework was used to guide the study and a qualitative data method was employed to gather data by conducting focus groups.

1.2. Contextual Background

Substance use is a concern within low socio-economic-status communities in South Africa. Substance use damages people's health but also leads to higher crime rates and risky sexual behaviour within these communities (Mudavanhu, 2013). Hamdulay and Mash (2011), argue that substance use has increasingly become a problem within South Africa with prices being reduced, it becomes more accessible to adolescents. There are many consequences to substance use; it affects the individual's brain, mental and social development, it also the academic progress in adolescents (Kulis et al., 2007). According to the South African Community Epidemiological Network on Drug Use (SACENDU), a bi-annual report was compiled by the Alcohol and Drug Research Unit of the Medical Research Council (MRC), the most common drugs used in the Western Cape were Methamphetamine, alcohol and cannabis. The proportion of cannabis admissions slightly increased, while the proportion of methamphetamine admissions slightly decreased compared to the previous period (Dada et al., 2017). Treatment admissions for Methamphetamine as a primary drug of abuse is low in many provinces except within the Western Cape (Dada et al., 2017). Methamphetamine (also known as 'tik') remained the most common primary drug reported by patients in the Western Cape in 2016 (Dada et al., 2017). This drug accounted for 32% of admissions. Methamphetamine and many other

substances have become increasingly problematic in poorer communities such as those on the Cape Flats in the Western Cape where there are extreme environmental stressors. According to the report, the proportion of Coloured patients in treatment remained higher than any other race groups. Coloured patients in treatment presented mostly with alcohol, (48%), cannabis/mandrax (81%), methamphetamine (81%), cannabis (71%) and heroin (90%) problems (Dada et al., 2017). It is evident with the above mentioned, that instruments such as the SASUCRI are needed to measure factors associated with substance use within low socio-economic-status communities to fully understand the relationship between risk and protective factors, and develop preventive measures.

The reported extent of substance use amongst adolescents in the Western Cape, compared to other regions in South Africa, and its impact shows the need for a focus on this problem. Numerous studies report high prevalence rates amongst adolescents from low socio-economic-status communities in the Western Cape which points toward the impact of context on substance use (Dada et al., 2017). Substance use amongst adolescents in South Africa is of major concern as easy access to illegal and legal drugs has increased throughout the years (Brook, Pahl, Morojele, & Brook, 2006). Many South Africans, particularly those of colour, live in disadvantaged areas. This is due to the long-term effects of apartheid, which have led to high levels of unemployment contributing to the level of poverty. Poverty most likely contributes to high levels of criminal activity, gangsterism and the trading and use of illegal substances as a means of survival and trying to provide for themselves. South Africa is a country undergoing various transformations economically and socially. The discrimination of the country's past has had a pervasive effect on the lives of previously disadvantaged racial groups (Flisher, Parry, Evans, Muller & Lombard, 2003).

Substance use amongst adolescents delays their psychological growth and functioning; it hinders them from living a healthy lifestyle and leads them to engage in violent, illegal and

criminal activities (Brook et al., 2001). Studies have been conducted to determine the prevalence rates for substance use (Flisher et al., 2003) and the risk factors related to adolescents' substance use in South Africa (Brook et al., 2006). The large amount of literature and research indicates the positive effects of regulatory interventions which reduce the use of substances. Unfortunately, there is a small amount of literature and research which indicates the barriers that prohibit proper and long term effective implementation of these interventions (Morojele et al., 2013). Studies have found that there are certain factors that are involved in contributing to the use of substances amongst adolescents. The most common factors that have been identified by these studies are; societal factors, community factors, school and academic environment, familial environment, peers/friends and individual factors (Morojele et al., 2013; Brook et al., 2006). Morojele et al., (2013) thus suggest that there is a need for further research and understanding of these risk factors. It is important to understand that there are better ways to improve the implementation of interventions for substance use reduction.

The SASUCRI is comprised of different item and sub-scales such as “mixed messages” “tolerance for soft drugs” school as a stressor”, “family functioning” and “school as a support”. These factors were associated with substance use within low socio-economic communities in the Western Cape. The SASUCRI measures these scales (refer to appendix A).

The original version of the SASUCRI had 147 items written within 23 scales which were developed and analyzed under the systems levels of Bronfenbrenner's ecological theoretical framework. Under each scale, there are various items and questions relating to factors associated with substance use. The answers for each question have been divided into 5 groups; Always (which is 100% of the time), Often (more than 50% of the time), Seldom (up to 50% of the time), Never (0% of the time) and Not Applicable. They were reduced to 131 items in 20 scales during the initial validation of the instrument (Florence, 2014). The instrument had been administered within low socio-economic-status communities in South Africa. The goal is

to develop preventative interventions for adolescents at risk of substance use and who live in low socio-economic-status communities. The initial validation study yielded results indicating the extent to which the instrument is valid and reliable. Fifteen of the twenty scales had reliability coefficients ranging between .74 and .93, one of the scales had a coefficient of .49 and the other four ranged between .63 and .68. In terms of concurrent validity, a significant difference was found between users and non-users for the scale in general, but also for about half of the scales. The content validity was confirmed by assessing construct relevance, and representation as well as face validity.

1.3. Development and validation of the SASUCRI

The instrument went through various validation phases which are ongoing. Based on the results of the validation studies some of the scales were revised. These revised scales thus needed to be qualitatively pretested as a form of further validation. The items that were pretested can be referred to as overall revised items, although some are new items. The sub-scales that were revised for the English version of the SASUCRI were as follows; “School as support”, “School as a stressor”, “Tolerance of soft drugs”, “Hopelessness individual” and “Hopelessness community”. The same scales for the Afrikaans version were pretested. There were revisions made to the sub-scales in both language versions. Therefore, 5 out of the 20 sub-scales for both versions were pretested.

The larger validation study focused on item selection and factor structure using exploratory factor analysis. Florence (2014), concluded that several items were found to load with other scale items across the scales, to cross load on more than one factor or not load at all. These items were either shifted or removed to improve the validity of the relevant scales. The theory used an empirical method to decide the selection of items and scales.

The instrument was developed within the systems levels of the bio-ecological framework. These consisted of the micro, meso, macro, exo and chrono-system levels. Thus, the argument of the theory concluded that the six system levels in a child's context can influence their development (Bronfenbrenner, 2005). Because the scales of the instrument were developed in these systems levels with regard to the structural validity, the scales were hypothesised to load on certain systems levels (Florence, 2014).

The Cronbach alpha results of most of the scales in the Afrikaans version ended up as satisfactory and provided provisional support for the item scores in each sub-scale to be summed to give a total sub-scale score (Florence, 2014). The initial validation study included the factorability, reliability and other characteristics in its analysis of the items. The data of the initial validation study considered factorability at item level regarding sampling adequacy, multicollinearity, and item characteristics. Additionally, the Cronbach alpha of the proposed scales were also explored (Florence, 2014).

Some of the sub-scales mentioned in the previous section were identified as having low Cronbach alpha (< .70). The low Cronbach Alpha indicates that the following sub-scales had low reliability. The reliability coefficients for the English version of the SASUCRI presented the following Cronbach alpha;

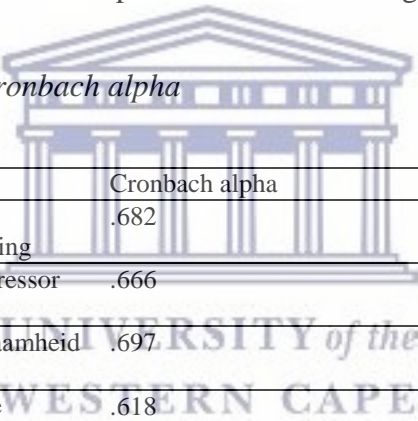
Table 1: *English sub-scales Cronbach alpha*

System level	Sub-scale	Cronbach alpha
Micro-system	School as support	.646
Micro-system	School as stressor	.639
Macro-system	Tolerance for soft drugs	.681
Chrono-system	Hopelessness individual	.491
Chrono-system	Hopelessness community	.628

The Micro (community) system level, “School as support” and “School as a stressor” presented with a low Cronbach alpha of .646 and .639 respectively. The “Tolerance for soft drugs” scale within the Macro system level also presented with a low Cronbach alpha of .681. The last scales identified, “Hopelessness individual” and “Hopelessness community” were within the Chrono-systems levels domain. These presented a low Cronbach alpha of .491 and .628, respectively (Florence, 2014, p. 236). It was indicated that these scales would need to be revised because of their low reliability (Florence, 2014). Some of the items were either revised or additional items were added. Some items were removed in the item selection process and these had to be replaced to improve the reliability in these sub-scales.

The Afrikaans version of the SASUCRI presented the following Cronbach alphas;

Table 2: Afrikaans sub-scale Cronbach alpha



System level	Sub-scale	Cronbach alpha
Micro-system	Skool as ondersteuning	.682
Micro-system	Skool as stressor	.666
Macro-system	Verdraagsaamheid teenoor	.697
Chrono-system	Individuele Wanhoop	.618
Chrono-system	Individuele Wanhoop oor gemeenskap	.586

The Micro (community) system level, “Skool as ondersteuning” and “Skool as stressor” presented a low Cronbach alpha of .682 for and a .666 respectively. “Verdraagsaamheid (tolerance) teenoor “soft drugs”, within the Macro system level was also identified as containing a low Cronbach alpha of .697. The last scales identified, “Individuele Wanhoop” and “Wanhoop oor gemeenskap” were within the Chrono-systems levels domain. These presented a low Cronbach alpha of .618 and .586 respectively. Once this was identified, the

instrument went through a validation process whereby items from these scales were either reworded; removed or new items were added.

Rawoot and Florence (2017), reported on the equivalence and item bias in some of the sub-scales of the SASUCRI across the different language versions. This study was conducted as part of the initial validation of the instrument to assess the equivalence between the entire Afrikaans and English versions of the SASUCRI. An exploratory factor analysis, equality of reliabilities, and the Tucker's phi coefficient of congruence was used to assess whether the two language versions were equivalent at a scale level. Additionally, Differential item functioning analysis was conducted using ordinal logistic regression and the Mantel-Haenszel method at an item level. The findings of the study revealed that there were significant differences between the two groups at a scale level. Specific items were flagged as presenting moderate to large differential item functioning (Rawoot & Florence, 2017).

Rawoot and Florence (2017), reported that the English version proved to be more problematic than the Afrikaans version of the scale when basing the item reduction on the results for the Afrikaans version. This related specifically to the following sub-scales: "School as a support", "School as a stressor", "Contradictions", "Hopelessness individual" and "Hope for the future" (Rawoot & Florence, 2017). This may have been because the items were not accurately translated. The study further illustrated that the Mantel-Haenszel method flagged eight items which presented with a large MH-DIF statistic. It was then recommended that these items should be removed from the scale. Three of the four items which were flagged by the ordinal logistic regression method were also flagged by the Mantel Haenszel method. All three of these items were located in the "School as a stressor" subscale. These subscales proved to be most problematic. It is evident that the sub-scales pretested in the current study reflects the sub-scales which were identified to be problematic in the Rawoot & Florence (2017) study. The study recommended that a qualitative pretest be conducted on both language versions of the

biased items in the target population, especially the items in the “School as a stressor” sub-scale. The authors further argued that conducting the pretest would allow the researcher of the current study to get input regarding the translation of the items into the spoken dialect as well as insights into participants’ level of familiarity with the content of these items. Based on the findings of the previous study, the researchers recommended that decisions need to be made about whether to exclude these items from the relevant sub-scales or to rewrite them in order to continue the ongoing process of validating the SASUCRI.

1.4. Translation of SASUCRI into Afrikaans

According to Dalen, Jellestad and Kamaloodien (2007), many of the Western Cape citizens are Afrikaans speaking. Therefore, because the SASUCRI is aimed at adolescents within the Western Cape, the instrument would be needed in Afrikaans as majority of the citizens are Afrikaans speakers. Child language instruments are almost exclusively designed for and standardized on speakers of mainstream dialects, and are typically administered by adult speakers of such dialects (Southwood, 2012). The result is that for many minority language groups, there are few standardized instruments available, and those that are available often lack cross-cultural validity (Craig & Washington, 2000). There is a need for South African language assessments to be culturally fair and linguistically appropriate, especially for Afrikaans medium speakers (Southwood, 2012). This resulted in the English version of the SASUCRI being translated into the Afrikaans version because there was clearly a need for the instrument to be available in both languages. Many cross-cultural research instruments are changed or adapted for use in multiple languages. However, it cannot be assumed that the different language versions of an assessment tool are equivalent across all languages and cultures (Bastari & Sireci, 1998). According to Hilton, Skrutkowski and Myriam (2002), it cannot be assumed that a concept has the same relevance across different cultures. Simply translating an

English version word-for-word into another language (such as Afrikaans) is not adequate to account for linguistic and cultural differences. Ideally, the perspectives of people from the culture about the concept of interest should be studied first, but often a practical alternative is to find and translate a tool developed in another culture. Lastly, it should be noted that the Afrikaans translation of the SASUCRI was originally written by an Academic who was not from the Western Cape. This could have been a reason for the in equivalence of items and the current comprehension issues found with the data gathered. Furthermore, because the items were originally translated by someone who was not from the Western Cape, the dialect used to translate the items could have different nuances than the Afrikaans dialect used by adolescents within the Western Cape. Therefore, this may create comprehension issues around some of the items.

The current study pretested 5 sub-scales of the English and Afrikaans version of the SASUCRI. The current study, did not administer the instrument, however participant were provided with the sub-scales and its respective items to identify if their level of understanding of the instrument. As, previously stated, the instrument was designed to be administered to adolescents in low socio-economic status communities. The previous section indicated that the equivalence study that was conducted proved that items were not accurately translated (Rawoot & Florence, 2017).

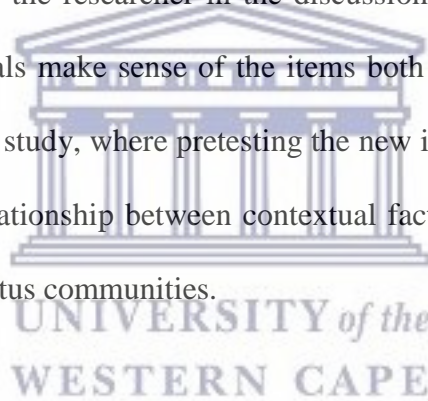
1.5. Rationale

There is a need for a more complete understanding of the etiology, social and environmental factors of substance use. A better understanding of these interactions could help us target preventative interventions. Once identified, developmental trajectories can be predicted and manipulated to affect the outcomes. Sutherland and Sheperd (2001), confirm that more needs to be done to fully understand the nature of the relationship between risk and protective factors

and adolescent substance use. It has been argued that instruments are needed to measure a range of factors so that the relationship can be examined in order to produce preventative measures (Sutherland & Sheperd, 2001).

The significance of the study was to ensure that the SASUCRI identifies factors leading to substance use in low socio-economic-status communities amongst adolescents. This was done by pre-testing the new and revised items of the SASUCRI. Pre-testing the items was a measure to help ensure that items were correctly understood by the participants as intended by the researcher. The study also motivated for the important and key nature of cognitive testing during the validation phases of the SASUCRI.

Questions that were asked by the researcher in the discussions were phrased in a way that tapped into how the individuals make sense of the items both contextually and cognitively. This study is tied to the larger study, where pretesting the new items will lead to a more valid instrument, examining the relationship between contextual factors and adolescent substance use in low socio-economic-status communities.



1.6. Aims and objectives of the study

The overall aim of the study was to contribute to the validation of the SASUCRI, more specifically, it was to pretest the items.

- To pretest the new items added to the SASUCRI

The objective of the study was to investigate whether the participants understood the new items within the SASUCRI;

- To investigate if the participants felt that the new items were appropriate in terms of its content validity

- To investigate whether participants understood the language used for the new items and whether this was appropriate
- To investigate whether the participants felt the items were phrased appropriately
- To see how well the participants could relate to the new items

1.7. Overview of thesis

Chapter one provided an overview of the larger study that was done in 2014. It also introduced the various validation processes that the SASUCRI surpassed. Furthermore, chapter one gave an overview of substance use within South Africa amongst adolescents. Lastly, it provided the rationale, aims and objectives for the current study.

Chapter two gives detailed account of the theoretical framework being used, namely Multi-component approach. This chapter contains a cognitive psychological theory explains the process of how respondents answer survey instruments.

Chapter three comprises of a discussion surrounding pretesting, in terms of its definition and why it used. It also explains the various techniques used within pretesting. Lastly the chapter illustrate how previous studies employed cognitive pretesting methods and how employing these methods added to the validation of the instrument.

Chapter four provides an account for the qualitative method being used for the current study. This section provides detailed information regarding, the steps taken in conducting the study. This includes sampling participants, type of qualitative methods used for data collection, data collection procedure, data analysis and ensuring trustworthiness of the study.

Chapter five presents the research finding that was gathered for the study. The Chapter provides an in-depth analysis and discussion on the data. The chapter is partly guided by the theoretical

framework of the study. However, because of additional themes that emerged from the data, the chapter focuses on those key themes as well.

Chapter six provides an overall summary of the study conducted. Furthermore, it reveals any limitations that may have been present in the study. In addition, the chapter also provides recommendations based on the research findings.



CHAPTER 2: Theoretical Framework

2.1. Introduction

The Multi-Component Approach was selected as a theoretical framework for the current study. Although, the initial validation study employed Bronfenbrenner's Ecological approach, the Multi-Component Approach was more appropriate for this study. The larger study utilised the ecological theory to develop and structure the scales in the instrument. However, the current study was not focused on developing further scales, but rather aimed to pretest the sub-scales of the SASUCRI. The approach was used to provide a better insight into participants' understanding regarding the sub-scales and its respective items.

Survey instruments have recently been evaluated in more detail, using theories and methods within cognitive and social psychology (Collins, 2003). Cognitive methods help researchers to understand and explore the processes by which respondents answer questions and the various factors that influence the answers that they provide (Collins, 2003). The Multi-Component Approach falls within the scope of both cognitive and social psychology. The chapter will discuss this theoretical framework that was employed for the current study.

The term measurement error, falls under the theoretical framework of the total survey approach. This approach assumes that error occurs throughout the survey process, and that effort should be employed to minimise any form of error (Weisberg, 2005). Measurement error can be a result of both the respondents and the interviewer. Respondent related error may occur to the extent the respondent is providing answers to the survey questions, as the researcher intended. This type of measurement error is typically the result of question wording or format and questionnaire construction (Weisberg, 2005). How well a question is worded or formatted will affect the amount of measurement error within that question. Thus, researchers minimise measurement error due to respondents by finding the most appropriate way to word questions,

and this is done by understanding how respondent's process questions cognitively (Weisberg, 2005). Lastly, the field of cognitive psychology has led to the increase in understanding of mental processes thus this has also influenced the writing of questions in survey instruments. Therefore, the theoretical framework chosen, discusses these processes and how it affects measurement error.

2.2. Multi-Component Approach

The multi-component approach has been used as a theoretical underpinning to understand the process in which respondents answer survey questions. The approach divides the process of answering survey questions into a series of steps (Weisberg, 2005). Four main components within this process have been identified (Tourangeau, 1984). These components are as follows; **comprehension** of the question, **retrieval** of the information from the respondent's memory, using the above information making the **judgement** required for the question and lastly the **selection or response** to the answer (Weisberg, 2005). The above steps have a clear order; however, respondent may not necessarily follow this order. Respondents may carry out multiple components simultaneously, they can backtrack from later to earlier components and they can skip components as well (Weisberg, 2005).

The multi-component approach utilises the work of cognitive psychology and its understanding of memory but also social psychology research on accurate reporting. The four components are steps, and each step may cause respondent error (Weisberg, 2005). In the first step, the respondent might misunderstand the question. At the second step, the respondent's memory recall may be incorrect, such as when the participant is asked to recall an event that occurred within their distant past. Regarding the third step, the respondent might not accurately integrate the information. Lastly, the participant may map the response or answer onto the response options incorrectly or could possibly edit their answer, such as when he/she feels that their

response must be acceptable to the interviewer, and therefore edits their answers that may be perceived as negative (Weisberg, 2005).

2.3. Comprehending the question

As previously stated, the first part of the response process is understanding the question or item. According to Belson (1981), respondents interpret interview rules to require them to answer each question, however they choose the possible meaning for a question to which they can readily form an answer. In addition, respondents will answer questions even when they do not understand the meaning of some terms. It is therefore imperative to make sure that the words of items can be easily understood by the participants (Ferber, 1956). Researchers sometimes overestimate the familiarity of people with the subject they are studying, and as a result they phrase questions “over the heads” of respondents (Weisberg, 2005).

Questions need to be worded simply enough so that participants may fully understand them. However, there are several pressures that lead to writing complicated items or questions (Weisberg, 2005). The need to keep interviews short leads researchers to ask broad questions rather than the specific ones that would be easier to understand. However, surveys or questionnaires cannot afford to ask long series of separate questions, therefore making each question as short and simple as possible. Additional problems to comprehension of items also include the misinterpretation of specific words. Questions often contain something that does not fit in with the respondent’s understanding of a topic (Weisberg, 2005). Therefore, questions that involve words that participants will not understand or require careful definition also involve comprehension problems. Furthermore, scales that ask respondents how often they do something (very often, often, not very often, etc.) suffer from severe vagueness problems (Bradburn & Miles, 1979), and these words are used differently by different races and by different education and age groups (Schaeffer, 1991).

Lastly, respondents may take the low road, exerting minimal effort at the comprehension stage, when the participants do not even bother to try and understand the item, by just selecting “Agree” or providing some type of answer that fits the question without paying attention to its content (Weisberg, 2005). The solution for the above problem, typically involves motivating respondents better, but it also helps to make sure that the questions can be easily understood.

Double-barrelled questions can be problematic. Double-barrelled questions ask two things at once (Weisberg, 2005). These issues may ultimately affect the results of a survey. Establishing the time taken to answer questions and grammatical complexity, are two ways of identifying questions that are likely to pose comprehension issues (Weisberg, 2005), which need to be reworked. Short, simple questions, with a clear meaning are always preferred because it avoids the use of unfamiliar and vague words. People are likely to take longer to answer questions that require more effort to comprehend.

2.4. Retrieval of information

Retrieval of relevant information from memory is the second stage of the multi-component approach. Retrieval depends on different factors. These range from how well the topic has been encoded into the individual’s memory, how much experience he/she has in retrieving from memory and whether the question provides enough cues to facilitate retrieval (Alba & Hasher, 1983). New information may not easily be retrieved because; it may be less well encoded in memory and have not been previously retrieved.

The way in which information is retrieved from memory depends on how it was encoded in memory (Weisberg, 2005). Encoding is the forming of memories. There are numerous encoding processes. One theory is that a set of interrelated memories are stored in an organized cognitive structure called a schema. This theory also suggests that people will not always be able to retrieve full details of events from memory because what they store may be incomplete

(Weisberg, 2005). Forgetting is a problem within survey research, because respondents cannot retrieve information that they have forgotten. Furthermore, it is also not possible to distinguish between whether someone has forgotten the information or has not even encoded the information in the first place.

Essentially this component of the multi-component approach entails retrieving relevant information from long term memory (Tourangeau et al., 2000). This pertains to cognitive processes such as, “adopting a retrieval strategy, generating specific retrieval cues to trigger recall, recollecting individual memories, and filling in partial memories through inferences” (Tourangeau et al., 2000, p. 9). Different aspects regarding the recall information as well as the survey questions can influence the correctness and the completeness of this phase. This includes the level of fit between terms used in survey questions and the events initial encoding; the number of cues provided and the quality of these cues; whether the memory originates from direct experience or not, and how long ago the event occurred (Tourangeau et al., 2000).

According to Bautista (2012), respondents may not be able to accurately recall the information required by the item in the survey or questionnaire. This may be because of how the information was encoded into memory. This includes whether there was an existing schema that was set in or a script of frequent experience sequences, as neither of these methods fully encoded all memory details, and therefore full recollection is not possible (Weisberg, 2005). Recollection is impacted by the length of time, and therefore shorter time frames of reference are suggested, as well as making use of a recent reference time period (Bautista, 2012).

Memory cues help in recollection of information, as well as “landmark” events, to provide a point of reference for participants to draw on (Weisberg, 2005). This could become helpful, especially when asking participants about previous events, as participants tend to over or underestimate the length of time between events. This is known as telescoping (Weisberg,

2005). Additionally, the occurrence of more events could interfere with the memory of earlier events of the same kind, so that asking someone what they ate a week ago becomes very problematic; people may instead infer what they probably ate. Furthermore, events that may have high emotional attachments are more likely to be recalled than bland events, and typically pleasant events are more likely to be recalled than unpleasant events (Weisberg, 2005).

2.5. Judgement

This component is used for retrieving information to make an appropriate judgement (Weisberg, 2005). At this stage respondents may have understood the question correctly, and retrieved the relevant information, however they may not feel sure about which response option reflects their thoughts or be confused about the response options (Bautista, 2012). The researcher would need to modify the response options or scales to make sure that they are gathering data from participants accurately. In addition, Tourangeau, Rips and Rasinki (2001), said that this stage contains processes used by respondents to integrate what they have retrieved or to supplement what they have retrieved. They identified five judgement processes; (1) judgements regarding the completeness or accuracy of retrieval; (2) inferences based on the ease or difficulty of retrieval; (3) inferences that fill in gaps in what is recalled; (4) integration of the products of retrieval into a single overall judgement; and (5) estimates that adjust for omissions in retrieval.

Respondents may not be able to integrate their information into a response, or they may even be confused by response options (Bautista, 2012). This would require the judgement of how accurate the information is, including reconstructing missing information from memories, and integrating it into a complete response (Weisberg, 2005). This judgment process can be affected by the wording or phrasing of the question, as alternate phrasing will change the comparison and suggest different information for consideration. Additionally, participants may try to

reduce the amount of cognitive processing required by simply selecting the first memory retrieved without assessing it for accuracy (Weisberg, 2005). This could be an issue, if the most accessible memory is atypical, if the response is an estimate modified to the question, or a generalisation from rare instances (Weisberg, 2005).

2.6. Response selection

The last component of the theory consists of selecting and providing a response (Tourangeau et al., 2000). After respondents make a judgement, they need to decide which response comes closest to that judgement. There are two types of processes that are involved in this component. These include: mapping the answer onto the appropriate scale or response option such as whether “strongly disagree” or “disagree” better fits the person’s position on an issue statement. The second process is editing the response for consistency, acceptability, or other criteria (Weisberg, 2005). There are various reasons why respondents may feel they cannot give their true answer, one being acquiescence bias.

Acquiescence bias refers to where individuals are more likely to agree to a question regardless of its content. This may be due to deference to the interviewer, or a lack of motivation to evaluate the question (Weisberg, 2005). A common method used to handle acquiescence problems can be by modifying how questions are phrased, with half positive and half negative. Therefore, any extreme scores would cancel out (Weisberg, 2005).

A respondent may have a fixed response in mind; however, they may be uncertain as how to report their response due to ambiguous response options provided on the instrument (Tourangeau et al., 2000). Regarding the above, with frequency items, a respondent may not be sure as to whether their answer qualifies as ‘seldom’ or ‘often’. This problem with selecting and reporting a response may be made difficult if presented with response options in a close-

ended question format, and none of the responses might reflect the respondent's view (Weisberg, 2005).

Some participants may not be willing to provide an answer to an item or some might simply select the 'Don't know' option as a way of refusing to answer a particular item (Tourangeau et al., 2000). The respondent may not feel comfortable to express their true feelings, and may adjust their response to be more socially desirable, or with what they think the interviewer may prefer (Bautista, 2012). Due to the lack of the interviewer's presence in self-administered questionnaires, this may be more suited for sensitive questions, as there is less direct social pressure (Bautista, 2012). The assurance of anonymity and confidentiality are also vital for ensuring more honest responses, as these aspects may minimise social desirability (Schwarz & Oyserman, 2001; Weisberg, 2005). Schwarz and Oyserman (2001), suggest that to minimise the threat of a questionnaire item, threatening questions can be presented among less threatening ones; or threatening items can be normalised.

2.7. Application of Theory

The Multi-Component Approach theorises that items often contain specific words or phrases that can be misinterpreted by participants (Weisberg, 2005). The literature stated above compliments the findings of the current study, because many participants struggled to understand specific terms in both the English and Afrikaans version of the SASUCRI. Therefore, this indicates that the instrument has ambiguous terms. Bradburn and Miles (1979), postulate that response options that ask respondents how often they do something (very often, often, not often, etc.) suffer from severe vagueness problems, because these terms are used differently across races, educational and age groups (Schaeffer, 1991). These response options are also found within the SASUCRI. These response option might also contribute to some type

of measurement error. This indicates how the framework, contributed to identifying measurement issues.

Respondents struggle to accurately recall information required when selecting responses and given that recollection is impacted by the length of time, shorter time frames are suggested (Bautista, 2012). The SASUCRI works with a 30-day reference period. This could prove to be challenging as many respondents would find it difficult to accurately recall information. Furthermore, the SASUCRI contains items which have high emotional attachments. Some of these items fall within the sub-scales that were pretested. These sub-scales are “School as a stressor”, “Tolerance of soft drugs” and “Hopelessness Individuals”. Additionally, these sub-scales contain some items that can be categorised as “unpleasant events”, therefore, being more difficult to recall specific information. Though some of these links do not necessarily happen in the analysis of the data. It does prove that the theoretical framework compliments the study well.

The framework used was to gain a better understanding of participant’s comprehension of the items. Because the framework was used as a guide to conduct the analysis, it provided the researcher with imperative inputs regarding comprehension and translation of the items. This allowed the researcher to identify the lack of clarity and understanding participants had regarding the sub-scales and its respective items. By identifying these issues and implementing the recommended changes provided in the results chapter, this could reduce the amount of measurement error that was previously found.

2.8. Two Track Theory

An additional theory on the response process is known as the Multi-Track Theory. Two-track theories vary, with the general focus being on a high road, which involves more active and

careful processing, often including the multi-component approach's steps, and the low road, which involves the minimisation of cognitive effort required (Weisberg, 2005).

A particularly important concept regarding the 'low road' is the idea of satisficing (Billiet & Matsuo, 2012), when "respondents seek to understand the question just well enough to provide a plausible answer" (Weisberg, 2005, p. 90). This may not be problematic in and of itself, but if questionnaires are too complicated or long, the respondent may put less effort into their processing, thus reducing the quality and accuracy of their responses, resulting in error or bias.

Two-track theories focus on respondent motivation. These theories assume that respondents could answer questions accurately if they wanted to, so the problem for the researcher is to motivate respondents enough to use the high road (Weisberg, 2005). Cannel, Miller & Oksenberg's (1981) early two track theory emphasised their high road focusing on careful processing, based on understanding of the question, cognitive processing, evaluating accuracy of response, evaluating the response based on the respondent's other goals and then reporting the answer to the interviewer. Their low road was concerned with superficial processing, when answers are based on superficial features of the interview situation, such as the interviewer's appearance, which could lead to different bias responses (Weisberg, 2005). Krosnick and Alwin's (1987) two track theory is considered the most influential theory developed. According to Weisberg (2005) their two-track theory's high road is considered an optimising approach, in which participants work through the best answer presented. However, the theory itself, is best known for its low road; a satisficing approach in which participants try to understand the question just well enough to provide a plausible answer (Weisberg, 2005).

Although, the two-track theory provides compelling literature, the Multi-Component Approach was selected as it was more appropriate as a framework for the study. In addition it was utilised as a guide for conducting the analysis of the data collected. Additionally, the various steps

within the approach complimented the findings for the theory as argued in the Application of theory section. This section highlights using examples from the SASUCRI and how it complements the theoretical framework selected.

2.9. Conclusion

The Multi component approach model provides a useful way to think about how respondents process questions or items when completing a questionnaire. When researchers are writing survey questions or items, it is crucial to consider each step, making sure that the questions can be understood by the participants, make reasonable retrieval demands, which will lead to appropriate judgments, and will not lead to severe editing by respondents.



CHAPTER 3: Literature Review

3.1. Introduction

The chapter will discuss the literature found on pretesting techniques. Additionally, the chapter presents studies that employed this technique. Certain cognitive processes operate when a participant responds to survey questions. The respondent must comprehend the question, retrieve the information from their memory, weigh the information and form or select an appropriate response (Bolton, 1993). If the respondent has any cognitive difficulties, the response to the item may contain some type of error (Bolton, 1993). Pretesting refers to various cognitive techniques which are applied prior to field testing techniques such as pilots. Pretesting techniques aim to identify non-sample errors and suggest ways to either improve or minimise the occurrence of these errors (The Australian Bureau of Statistics, 2001). The types of non-sample errors are as follows;

- A) Respondent bias. This arises from interpretation of the questions and the cognitive processes undertaken in answering the question,
- B) Interviewer effects, arising from the interviewer's ability to consistently deliver the questions as worded.
- C) Mode effects, caused by the design and method of delivery of the survey instrument and the interaction between these.

There are different pretesting techniques for instrument designers to use to meet different purposes. These techniques aim to identify errors that may be introduced during the administration of the questionnaire (The Australian Bureau of Statistics, 2001). Qualitative pretesting techniques use convenience or purposive sampling rather than strict probability sampling. The following are qualitative techniques that are usually employed in pretesting an

instrument; literature review, expert review, focus groups, interview debriefing and observational interviews and cognitive interviews (The Australian Bureau of Statistics, 2001).

Though pretesting identifies problems which exist within the broader population which could affect the data quality, techniques which use probability sampling are required to provide information about the magnitude of the effects these problems will have on the final data (The Australian Bureau of Statistics, 2001).

3.2. Types of Pretesting Techniques

According to The Australian Bureau of Statistics (2001), an expert review can be considered as a pretesting technique. A group of survey design experts reviews a questionnaire to identify potential sources of a non-sample error by understanding the respondent's task and to make suggestions on how to minimise potential errors. These are individuals who are experts in the critical appraisal of survey questionnaires (Willis, Schechter & Whitaker, 1999). These individuals can apply their theoretical understanding of, and extensive experiences in, survey development by critiquing the instrument. Additionally, experts would systematically analyse the response task of each item or question in terms of comprehension, information retrieval, judgement and response generation (The Australian Bureau of Statistics, 2001).

Expert panels can identify issues not found by other techniques and have the added advantage of being inexpensive. These panels typically consist of 3 to 8 experts that critique the instrument from multiple perspectives (Czaja, 1998). According to Czaja and Blair (1996), the advantage of this technique comes from the diversity of expertise and the interaction that takes place in the group. Expert panels are normally employed before conducting a field pretest and again during the questionnaire revision process after a field pretest (Czaja, 1998). Presser and Blair (1994), conducted a study that compared four pretesting techniques. Expert panels identified the largest number of issues; expert panels and cognitive interviews were the only

techniques that diagnosed a number of analysis problems; and expert panels and behaviour coding were the most consistent techniques to identify various issues (Presser & Blair, 1994).

Focus groups have been considered as a qualitative pretesting technique as well. This is an informal discussion led by facilitator with a small group of people from the survey population (The Australian Bureau of Statistics, 2001). Generally, this type of technique is employed early in the development to explore conceptual issues relevant to specific sub-populations (Czaja, 1998). Focus groups can use as a pretesting technique for a variety of reasons. They can be used to determine the feasibility of conducting the survey; they can also be used to develop survey objectives or data requirements. In addition, this technique can determine the data availability and record keeping practices. It can also explore and define concepts, and clarify reference periods.

One of the key characteristics of employing this technique is that it can evaluate the respondents understanding of the language and terminology used in the questionnaire, and evaluate alternative item wording or formats (The Australian Bureau of Statistics, 2001). When employing a focus group as a pretesting technique, researchers or questionnaire developers can identify specific terminology, definitions and concepts used by respondents and can identify potential issues with data availability and collection methodologies. Lastly, this technique assists in better understanding the range of attitudes or understanding and the complexity of tasks for respondent (Czaja, 1998).

Cognitive interviews are commonly used during the pretesting phase of questionnaire development to identify items that are not understood by respondents as intended by the researcher or the survey developer. According to DeMaio, Rothgeb and Hess (1998), Cognitive interviews are laboratory methods because the interviews are conducted one-on-one with a researcher and a subject, and they generally take place in a laboratory.

This was adapted from the method of protocol analysis which was developed to study problem solving (Ericsson & Simon, 1980, 1984). This method includes having participants think aloud and verbalize their thought processes as they attempt to interpret and understand the survey questions and formulate their responses (DeMaio, Rothgeb & Hess, 1998). Interviewers are trained to use scripted probes to clarify any ambiguous thoughts and statements (Czaja, 1998). During a “think aloud” interview, the researcher is silent during the response process and interacts with the participant only to issue nondirective probes to mention aloud what they said (DeMaio, Rothgeb & Hess, 1998). This technique is not used universally, although in many survey organisations cognitive interviews are a combination of having participants think aloud and having the researcher probe for the respondent’s definition of terms (Willis, 1994; DeMaio et al., 1993). Generally, the aim of “think aloud” interviews is to identify comprehension, interpretation and recall problems. Additionally, a key goal is to gain understanding of cognitive processes that participants use to form their responses (Czaja, 1998).

The second last technique being discussed is known as the Questionnaire Appraisal Coding System. According to Lessler and Forsyth (1996), this technique is used by trained coders, who perform a systematic, item by item analysis of a survey questionnaire using a detailed taxonomy of item characteristics which indicate potential response accuracy problems. Czaja (1998), states that each item is rated on multiple factors that are grouped into four major categories that correspond to key stages of the response task: comprehension, information retrieval, judgement and selection. For example, within the comprehension category, coders would examine each question for undefined or ambiguous concepts, technical terms, hidden questions, undefined or poorly defined reference periods, mismatch between questions and their response choices and other potential concerns (Czaja, 1998). Furthermore, the number of codes assigned to each item and the proportion of items assigned specific codes, are used to identify and prioritize questions that need revision (Czaja, 1998).

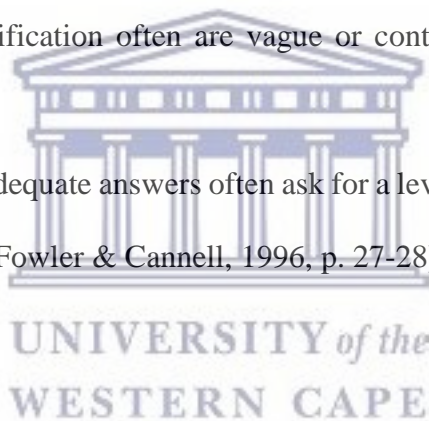
Behaviour coding is a technique that was developed at the University of Michigan (Fowler & Cannell, 1996). This technique employs a method whereby the interviewer reads an item or question exactly as it is written and the respondent provides a complete answer (Czaja, 1998). The coding is employed through a systematic manner on a case by case basis to capture specific aspects of how the interviewer asked the question and how the participant responded (DeMaio, Rothgeb & Hess, 1998). Behaviour coding involves audio recording interviews being conducted in an undeclared field pretest and then, coding for each item, and the number of times any of the following interviewer or respondent behaviours occurs;

- A. Interviewer made minor wording change when reading the question
- B. Interviewer made significant wording change when reading the question
- C. Respondent interrupted the question reading to give his or her answer
- D. Respondent asked for clarification
- E. Respondent qualified his or her answer
- F. Respondents initial answer was inadequate
- G. Respondent gave a “don’t know” response
- H. Respondent refused to answer the question (Czaja, 1998, p. 11).

When one of these behaviours occurs 15 per cent or more of the time during the pretest interviews, it is likely that there is some type of error with the item (Oksenberg, Cannell & Kalton, 1991). Behaviour coding is considered a simple, inexpensive method for analysing conventional pretest interviews and to systematically identify problematic questions. Reporting the results of behaviour coding for each question during the interviewer debriefing session provides an opportunity to get the interviewers’ interpretations and suggestions for the problem

areas. A key limitation of behaviour coding is that it does not necessarily identify the source of the problem. However, Fowler & Cannell (1996), have attempted to link behaviour codes with specific types of problems. They summarized the preliminary generalisations that emerged from the following;

- "1. Questions that are not read as worded are awkwardly phrased or include words that are difficult to pronounce.
2. Questions that are misread and frequently interrupted often offer dangling explanations at their conclusion.
3. Questions that lead to requests for clarification often require response tasks that do not fit respondents' experience or frame of reference.
4. Questions that require clarification often are vague or contain a poorly defined term or concept.
5. Questions that stimulate inadequate answers often ask for a level of detail that is greater than the respondent can provide." (Fowler & Cannell, 1996, p. 27-28)



3.3. Pretesting Studies

This section provides an overview of various studies, outlining the importance of pretesting questionnaires. The studies mentioned below do not employ the same theoretical framework as the current study, however, some studies utilised the same principles as the Multi-Component Approach. Additionally, the purpose of discussing these studies was to highlight the importance and the need for pretesting survey instruments.

Haeger, Lambert, Kinzie and Gieser (2012), report on the results from cognitive interviews and focus groups conducted as part of the psychometric testing to improve questionnaire design and inform revisions to the National Survey of Student Engagement (NSSE). The NSSE is a survey used by colleges and universities to assess the time and effort students dedicate to

educationally purposeful activities. Their report focuses on the process of evaluating and revising the NSSE survey instrument.

Theoretically, the Multi-Component Approach was not employed for the cognitive testing, however, the same principles were used. These were comprehension of the question, retrieval of information, appropriate judgement and responding to the question (Haeger et al., 2012). The NSSE survey instrument went through in depth cognitive testing since its inception in 1999 (Kuh, Kinzie, Cruce, Shoup & Gonyea, 2006; Ouimet, Bunnage, Carini, Kuh, & Kennedy, 2004). The most recent series of cognitive testing explored the cognitive processes that students use to respond to survey questions and to identify items that are not well understood by respondents (Haeger et al., 2012).

There were several techniques that were employed to evaluate students understanding of items, including cognitive interviews, using a combination of both think-aloud and verbal probing techniques, and as well as focus groups (Haeger et al., 2012). Researchers used these approaches to determine how well students understood survey questions, as well as to test new and revised survey questions and different response options. In-depth cognitive interviews were conducted with 120 students and ten focus groups were conducted with a total of 79 students at 12 different campuses (Haeger et al., 2012).

During both cognitive interviews and focus group discussions, an interviewer and a note taker were present. These events were both recorded. Analytic memos were created based on the notes and digital recording from the data collected (Haeger et al., 2012). The memos contained a summary of each participant's response to a specific item and the investigators impression of the quality of the survey question based on those responses. The memos were coded into the following categories: "no problem noted on the item", "minor misunderstanding or problem" and "significant problems". These codes were completed independently by two reviewers to

assure inter-rater reliability. A third reviewer analysed the coding completed by both researchers and addressed differences in coding. The team of researchers who conducted the cognitive tests jointly analysed findings and thoroughly vetted interpretations and conclusions across survey questions (Haeger et al., 2012). Findings from the analysis were used to inform the development of new and revised survey items and response options.

The study above reports a similar process of their cognitive testing as the current study. A similar cognitive theoretical framework was employed. Additionally, focus group discussions as a cognitive technique was employed to collect data, and these were digitally recorded. The studies differ from one another through the analysis. Whereas the current study's framework guided the analysis through the four component, the above study coded the findings into their own categories. Lastly, the findings of the current study also found additional information that was not within the scope of the theoretical framework employed.

Following the trend of cognitive testing, Arthur, Hawkins, Pollard, Catalano and Baglioni (2002), examined risk and protective factors predictive of adolescent problem behaviour such as substance use and delinquency in the development of a survey instrument. Their study described the development, reliability and validity of a self-report survey instrument for adolescents 11-18, that measured an array of risk and protective factors across numerous ecological domains as well as adolescent problem behaviour. The instrument is used to assess the epidemiology of risk and protection in adolescents and to prioritize specific risk and protective factors in specific communities as targets for preventive measures.

A key step in the process of developing the survey instrument for the study was to conduct a cognitive pretest of items to elicit information about how respondents interpreted the meaning of survey questions (Arthur et al., 2002). There were twenty-five adolescents chosen to participate in the cognitive pretesting phase of the study. The participants were divided evenly by ethnicity (European American, African American, Asian, and Hispanic) and sex, and were

recruited from an alternative high school in an urban school district and from a community recreation centre in a suburban community (Arthur et al., 2002).

The participants of the above study were asked to think aloud as they formulated their answers to a subset of about 20% of the pool of risk and protective factors items, so that each item was tested with five adolescents from differing backgrounds. Additionally, probing questions were developed for each item to determine what specific words within the question and response set meant to the respondents. The questions were then examined to identify ambiguous questions or response sets and questions that were interpreted differently than intended by the researcher. This was imperative as it is crucial that participants interpret the questions as it is intended by the researcher, because this could create error within the results from the instruments. The results of the cognitive testing phase for this study indicated that 98 items were unclear to the adolescents. These items were eliminated from the item pool, leaving a revised pool of 252 items which measured risk and protective factors (Arthur et al., 2002).

The instrument developed, measures similar factors to that of the SASUCRI. Both instruments aim to examine risk and protective factors for substance use amongst adolescents'. Additionally, the authors argued that pretesting was a significant phase for developing the instrument because, the process was to provide information about how participants understood the survey questions. The cognitive pretesting phase, therefore added to the validation of the instrument, attempting to minimise any type of measurement errors that may occur.

The authors of the next study argued for why pretesting was preferred rather than piloting their survey instrument. Carbone, Campbell and Honess-Morreale (2002), conducted cognitive interviews to assess comprehension of nutrition based survey items and nutrition intervention messages in low-income families in North Carolina. These authors suggested the effectiveness of dietary surveys and educational messages is dependent on how well participants' information processing needs and abilities are addressed. For them, utilizing a pilot study

would be helpful, however, errors with wording and language are often not seen in pilot studies. Therefore, cognitive interview techniques offer an approach to assist dieticians in understanding how participants process information. Employing this method, participants were led through a survey and are asked to paraphrase the items; discuss thoughts, feelings and ideas that come to mind and suggest alternative wording (Carbone, Campbell & Honess-Morreale, 2002).

The study recruited twenty-three technical community college students to participate in the cognitive pretesting study. Therefore, there were twenty-three cognitive interviews conducted. These participants were recruited through posting a notice on the school board regarding the study. The sample of respondents included 8 males and 15 females, of which half were African American. By conducting the pretesting techniques, it added to validation of the study. Better understanding of respondents' cognitive processes significantly improved the language and approach used in this intervention. The data gathered from the cognitive interviews identified four problem areas; which were unclear and vague instructions, confusing terms and response options, variable interpretations of terms, and misinterpretation of dietary recommendations (Carbone, Campbell & Honess-Morreale, 2002). The results of the study were used to clarify unclear instructions and words, expand response options, and moreover specify dietary recommendations to ensure that the survey and intervention messages were more suitable for low income groups. The above results agree with previous research indicating that employing cognitive interview techniques is crucial for a formative evaluation and development of nutrition surveys (Carbone, Campbell & Honess-Morreale, 2002).

3.4. Conclusion

The chapter presented how cognitive pretesting contributes to validation of survey instruments. Therefore, cognitive interviews identify the types of errors made by respondents and assists

researchers to understand how they interpret and answer questions. As mentioned before, cognitive interviews are employed widely during the pretesting phase of questionnaires to identify items that are not understood by respondents as intended by the developers of the survey instrument. The literature indicates that cognitive pretesting is an important phase of developing instruments. The studies above proved that conducting a pretest contributed to the validity of their instruments.

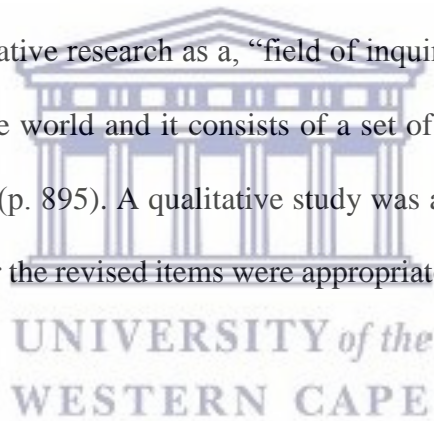


CHAPTER 4: Methodology

4.1. Introduction

The following chapter presents the research methodology that was employed for the current study. This chapter includes the research approach, research design, the sample size and the sampling procedure. Lastly, the chapter includes the instrument that was used and procedures that were used to reach participants, but also the data collection tool that was used to collect the data.

The study was of a qualitative nature. The researcher aimed to explore and understand the meanings attributed to participants' understanding of the revised items. Lewis-Beck, Bryman and Liao (2004), define qualitative research as a, "field of inquiry, and it is a situated activity that locates the observer in the world and it consists of a set of informative factual practices that makes the world visible" (p. 895). A qualitative study was appropriate, because it helped the researcher explore whether the revised items were appropriate and valid for the SASUCRI.



4.2. Characteristics of Participants

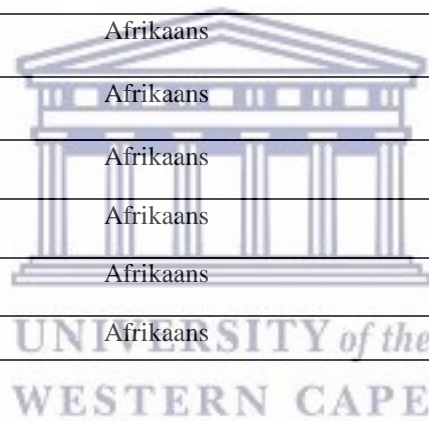
Table 1: *English Focus Groups*

Gender	Age	First Language	Race
Male	16	English	Coloured
Female	15	English	Coloured
Female	15	English	Coloured
Female	15	English	Coloured
Female	17	English	Coloured
Male	15	English	Coloured
Male	14	English	Coloured
Female	15	English	Coloured
Female	13	English	Coloured
Female	13	English	Coloured
Female	14	English	Coloured
Female	15	English	Coloured
Male	14	English	Coloured
Female	14	English	Coloured
Female	14	English	Coloured
Male	16	English	Coloured



Table 2: *Afrikaans Focus Group Participants*

Gender	Age	First Language	Race
Male	15	Afrikaans	Coloured
Male	16	Afrikaans	Coloured
Male	16	Afrikaans	Coloured
Male	16	Afrikaans	Coloured
Female	14	Afrikaans	Coloured
Female	17	Afrikaans	Coloured
Female	15	Afrikaans	Coloured
Male	13	Afrikaans	Coloured
Female	15	Afrikaans	Coloured
Female	16	Afrikaans	Coloured
Male	16	Afrikaans	Coloured
Male	17	Afrikaans	Coloured
Female	13	Afrikaans	Coloured
Male	13	Afrikaans	Coloured
Male	15	Afrikaans	Coloured
Female	17	Afrikaans	Coloured



The current study employed the same population as the larger study; however, the sample of participants differed. Therefore, the participants in the current study were not the same individuals that was used in the larger study. The participants were from a low-socio-economic-status community. In this study, a non-probability purposive sampling was used to select schools from the Western Cape. Within the schools, learners were sampled using convenience and purposive sampling. This type of sampling is used when the researcher chooses their sample by including people who are available or who can conveniently be recruited to partake in the study (Kelley et al., 2003). According to Giddeons (2012), an experimental researcher uses this type of sampling when they know the characteristics of the target population and seeks out specific individuals, who have those characteristics. In the current study, the sampling

methods was deemed appropriate since the participants were required to meet certain inclusive criteria and these participants were easily available.

Two specific schools were selected to participate in the study, because they met the criteria of the larger study. The criteria included schools from low-socio-economic-status-communities. Schools were located in Mitchell's Plain and Hanover Park. These two schools were selected because permission was granted by the Western Cape Education Department, to conduct the study on their premises. Learners who came from these communities were selected as the target population. The current study had 32 learners who participated. There were 8 learners selected for each focus group. The learners were from grades 8-12, consisting of both males and females. Participants were randomly selected from a list of names that was provided by the schools to partake participate in the study. The study had conducted 4 focus group discussions in total. Two of each was conducted in either English or Afrikaans. All participants who engaged in the English focus group discussion were considered as English mother tongue speakers and those who participated in the Afrikaans focus group were considered to be Afrikaans mother tongue speakers. Lastly, all focus groups were conducted within school premises. However, more specifically in a classroom, that was made available for the research process.

4.3. Data collection procedure

The English interviews were conducted by the researcher of this study and the Afrikaans interviews was conducted by another researcher, whose first language was Afrikaans. A proposal was submitted to the University of the Western Cape and ethics clearance was obtained. Additionally, the researcher for the current study was granted permission from the Western Cape Education Department to conduct the study. The school principals for the selected schools were approached for permission to conduct research within the schools.

Learners were informed about the study and were given information letters (Appendix F) that outline what the study entailed. Consent forms (Appendix C) were issued to the parents and were required to be signed before any learner could participate in the study. Learners were required to sign assent forms (Appendix B). These forms were only provided to students who participated in the study. These forms were given to the respective teachers from the researcher and then distributed from the teacher to the students.

All focus groups were conducted during a lunch period within each school. All focus groups were 30-40 minutes. The focus groups ran as followed; the researcher established initial rapport. The researcher took responsibility by ensuring that he was friendly and positive. To establish rapport the researcher spent 10-15 minutes engaging with participants before conducting the interview. This allowed participants to feel more comfortable and made the research process more naturalistic. The researcher mentioned to participants that they may disclose any amount of information that they felt comfortable sharing. It was also mentioned that there were no right or wrong answers. The researcher gave a brief background of the study. The focus groups ended on a positive note. Once focus groups were completed, the researcher thanked his participants for their contribution.

4.4. Data collection tool

The current study employed focus groups as a data collection tool. Willig (2009), defines focus groups as a collective group of individuals gathered together by the researcher with the aim of gathering data through the discussion of the research question or topic. Two focus groups were conducted in each school. One of each was conducted in English and the other in Afrikaans. This data collection tool was used, because it gave the researcher a more in-depth understanding of the participants' perspectives regarding the revised items in the SASUCRI. The focus groups were used to examine whether participants understood the questionnaire.

Focus groups generate qualitative data which gives an understanding of the participants' opinions and perspectives, by using open-ended questions (Krueger, 2009). The researcher for the current study observed both the verbal responses of participants and their body language; the way they interacted with each other, and the interaction with the items. The researcher used an audio tape to record the sessions, once permission was obtained by participants. The motivation for using this method were that participants were stimulated to discuss the given items, the group dynamics generated new thinking about the items and its appropriateness which resulted in a more in-depth discussion. In addition, the focus group was employed to evaluate respondents' understanding of language and terminology used within the instrument, but also to evaluate alternative question wording or formats and to understand respondents' burden.

An interview schedule was used to start and guide the discussion of the focus groups. The following generic questions were asked during the focus groups;

- 1) Do the items/questions feel relevant to you, explain why it is or is not relevant?
- 2) Is the language used difficult to understand, if so motivate what changes could be made in the terminology that was used.
- 3) Do you feel that the items/questions were phrased appropriately?

These generic questions were based on the objectives of the study to solicit a more comprehensive understanding of participants' perception and understanding of the pretested items. However, Appendix L provides more detail on how questions were phrased for some of the items.

4.5. Data Analysis

The focus groups were recorded using an audio recorder and then transcribed by the researcher of the study. The audio recording was transcribed word for word to provide the most accurate representation of what participants were saying. The information gathered from the transcription was analysed using a content analysis. Content analysis has been characterised as a research method for the subjective interpretation of the content of text data using a systematic classification process of coding and identifying themes or patterns (Hsieh & Shannon, 2005). Qualitative content analysis goes beyond counting words or extracting objective content from data, examining meanings, themes and patterns. It gives the researcher the opportunity to understand the social reality in a subjective yet scientific manner (Zhang & Wildemuth, 2009). Content analysis involves the process designed to categorise raw data or place them into themes based on valid inferences and interpretations (Zhang & Wildemuth, 2009).

Content analysis was appropriate for the current study as it generated meaningful data whereby the researcher examined themes and patterns. In addition, it gave the researcher an opportunity to explore and understand the participants' perspective around the SASUCRI and its relevance to them, in a subjective, yet scientific manner. This allowed the researcher to examine whether the participants feel the new items for the SASUCRI are appropriate in terms of its content.

The data collected from all the participants was rich, as one normally receives from conducting a qualitative study. The data collected was to examine whether participants understood the items that were being pretested. The analysis started by using the transcriptions to identify the specific items that participants viewed as problematic. Once those items were identified, the researcher analysed each item by identifying the concerns raised by participants regarding the respective items. The analysis was structured and informed through a cognitive psychological theory, known as the Multi-Component Approach. The Multi-Component Approach has been used as a theoretical underpinning to understand the process in which respondents answer

survey questions. Thus, this approach was as a domain to guide the analysis. The approach guided the analysis by identifying issues of comprehension and lack of clarity. The method of the content analysis was conducted with both language versions, however there was an extra step for the Afrikaans data, which included translations of the transcriptions. Lastly, the researcher did not single out any of the items he intended to pretest, in order to provide a platform for the participants to have their own perceptions about the items.

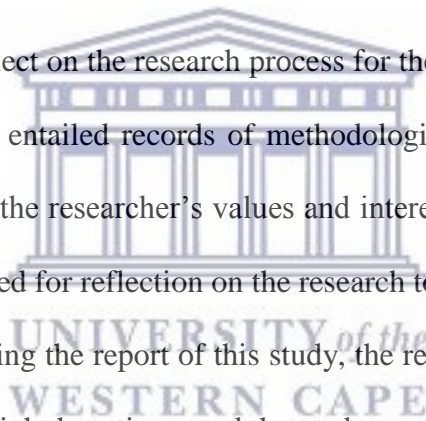
4.6. Ethics considerations

Ethics clearance was obtained from the University of the Western Cape to conduct the initial validation study. Permission to conduct the current study was requested from the researchers of the larger validation study (Appendix G). Ethics clearance was obtained from the University of the Western Cape's Senate Higher Degree's committee for the study. Permission to conduct the study was also requested and granted from the Western Cape Education Department. Permission was requested and granted from the schools and the parents for learners to participate in the study. The information obtained remains safe and confidential. This was done by using computer programmed security passwords to protect the information electronically. The paper copies of the information obtained is locked in a filing cabinet, which only the researcher has access to. Participants were not named in the study and the researcher has ensured that no participant was harmed in any manner. They were informed that they could withdraw at any stage during the study and that their participation was voluntary. Participants were given consent forms and information sheets (Appendix B & F). Parental consent was obtained and signed consent was obtained from the learners (Appendix C). Participants were given a focus group confidentiality form as well (Appendix D). These documents were translated into Afrikaans for use with the Afrikaans speaking adolescents.

4.7. Reflexivity

Reflexivity refers to the analytic awareness to the researcher's role in qualitative research (Goulder, 1971, as cited in Dowling, 2006). According to Dowling (2006), the term is both a concept and a process. The reference of reflexivity as a concept refers to a certain level of consciousness and self-awareness (Lambert, Jomeen, & McSherry, 2010). Additionally, reflexivity refers to the researcher being aware that they are the social world, which is being studied. As a process, the term reflexivity refers to introspection on the role of subjectivity in the research process. Therefore, it is a continuous process of reflection on the researcher's values, examining and understanding how their social background and assumptions might influence the research process (Hesse-Biber, 2007).

A method that was used to reflect on the research process for the current study, was keeping a reflexive journal. The journal entailed records of methodological decisions and reasons for them, as well as reflecting on the researcher's values and interest. In addition, the method of employing focus groups allowed for reflection on the research topic for the researcher and the participants. Additionally, during the report of this study, the research constantly reflected on his own biases and how this might have impacted the study.



CHAPTER 5: Results and Discussion

5.1. Introduction

This chapter focuses on the results and discussion of the research findings of the study. The order of this chapter will be as follows: The first section will consist of the results collected with the English version and the second section will consist of the results collected for the Afrikaans version of the instrument. The different sections will include the common themes found from the analysis and translation of the Afrikaans version of the SASUCRI.

5.2. English Version

The purpose of the study was to pre-test some of the items of both the English and the Afrikaans version of the SASUCRI. There were specific scales that were pretested for both versions. Therefore, the entire instrument was not pretested. To acquire the data, a qualitative research approach was employed by means of an explorative, descriptive and contextual strategy of inquiry. Data was gathered using focus groups discussions. The previous chapter provides a motivation for the use of these methods.

The table below displays the revision of some of the items during the initial validation phase of the SASUCRI. The table provides both the original description of the item and the revised version.

Table 1: *Revised Item*

Scales	Item No	Item Description (Original)
School as Support	90	I did not understand the work being taught at school.
	91	I felt what I learnt in school is useful.
Item Description (Revised)		
School as Support	90	I did not understand some of the work being taught at school.
	91	I felt school is useful because I learnt a lot.

The above indicates some of the revisions made to the instrument. There were several additional changes that were made to specific items. Once the changes were made in the initial validation study, it was recommended that the revised items under each scale would need to be pretested qualitatively. This recommendation was made, to gain a better understanding as to whether participants can comprehend the pretested items. As well as gain a greater understanding of the process participants undergo when responding to the items. Thus, the main objective of the study was to test whether participants felt they understood the items presented. The above items were selected to provide a better understanding of the changes that items went through. The purpose was not to provide all items that went through changes, because the revised or new items will be seen in the following discussions. Appendix H and I provide the full sub-scales that were pretested for this study.

5.3. Revised items: English Version of the SASUCRI

The table below indicates the items which were identified as problematic by the participants in both focus groups (for the English version).

Table 2: *Pretested Items*

Scales	Item No	Item Description
School as Support	87	My teachers supported me.
	88	I had teachers who I could talk to.
School as a Stressor	91	Children at school made fun of me.
	93	I felt left out by learners when at school.
	94	I felt that teachers were not fair towards me.
	95	I felt bullied at school
Tolerance of soft drugs	118	I felt that it wasn't right for the people in my community to talk about "hookah pyp" as if it is a normal and everyday thing.
	121	Most people in my community looked forward to the weekend because that when they were most likely to use alcohol/dagga/"hookah pyp".
Hopelessness	133	I felt that I would end up like the adults in my community when I grow up.
	134	It seemed unlikely that I would get any real satisfaction in the future.
	135	The future seemed vague and uncertain to me.
	138	I thought that I am too poor to ever make a success of my life.
	139	It bothered me that my education was not sufficient to get me where I need to be.

5.4. Themes identified

The first section of the analysis was guided by the first component of the multi-component approach. The approach served as a method of gaining a better understanding of whether participants understood the items that were presented. Additionally, the theory guided and

presented a manner to identifying comprehension issues with regards to measurement error. The second section of the analysis contains items that were not initially identified by the researcher to be revised and deemed not necessary for pretesting. However, these were identified by the participants. These were included because they formed part of the sub-scales that were pretested. The third section of the analysis has the suggestions the participants provided for rephrasing some of the items.

5.5. Comprehension

During the analysis of the transcripts, it was apparent that many of the items chosen by the participants were mainly because they did not “understand” what the question was asking them. This further related to how certain terminologies within the questions were not familiar. During the focus groups, many of the reasons that participants provided for identifying the items were as follows;

“I didn’t understand”, “was unclear and did not understand”. “I didn’t understand- Do they I feel left out by other learners, because I’m different from them” (Item 93).

I just don’t understand it. Do they mean like I feel ignored or do like are the learners unfair to me (Item 93).

Does it have to do with the way other kids live at school of the way they are or does it come back to their home (Item 93).

You feel left out the other learners because you’re a different from them (Item 93).

When discussing item 93, participants raised the last comment. This indicates the lack of understanding participants had when reading the above item. The various comments also indicate how participants attempted to build their understanding of the item together as a group. This further illustrates how the participants fed off each other’s comments and narrowed their understanding of the item. Additionally, the last comment made was deemed as more appropriate manner to phrase the item. Item 134 (sub-scale Hopelessness Individual) had participants providing similar comments;

“One thirty four is also unclear, like I did not understand” (Item 134).

“It is unclear and I didn’t understand what was meant by “real satisfaction” (Item 134).

“I don’t think that I will be satisfied within the future. By the circumstances that I am experiencing now” (Item 134).

“It seems unlikely that I will get any goals achieved or something like that in the future” (Item 134).

This comment illustrates how participants struggled to understand certain concepts within the context of the item. They could not understand what was meant by “real satisfaction”. This further argues for the idea that the concept itself may be too evasive. Furthermore, additional reasons for not understanding the item was that participants felt that certain concepts or terms would be better suited for the question. This was stated because items would appear to be easier to understand, so that respondents may understand and interpret the item as intended. Item 133 (Hopelessness Individual) received comments such as;

“I don’t understand the whole concept with this I don’t understand what they actually trying to do and stuff” (Item 133).

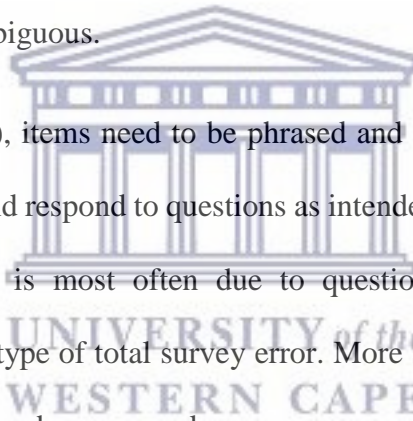
“You need add unsuccessful to adults” (Item 133).

“By one three three, it says that I felt that I would end up like the adults in my community when I grow up, why not say that I up like the unsuccessful adults in my community” (Item 133).

“The word vague needed to be removed or changed so that we can understand” (Item 135).

The comments clearly indicate a lack of comprehension demonstrated by the participants. The participants raised further concerns, asking whether the item is referring to individuals who are using drugs or those who were not. It was later indicated that if the item was referring to individuals who were using drugs and were unsuccessful, the word “unsuccessful” should be added. Additionally, item 135 (Hopelessness Individual) comments coincide with the beginning of the paragraph, where participants felt certain terms would be better suited for the

question in terms of understanding what the item was asking. Furthermore, participants raised issues of ambiguity as well. According to Geer (1998), sentence comprehension must deal with ambiguity in spoken and written utterances, for example lexical, structural, and semantic ambiguities. Ambiguity is ubiquitous, but people usually resolve it so effortlessly that they do not even notice it. These issues raised by participants can be directly linked to the Multi-Component Approach. The approach also discusses possible comprehension problems such as questions should be stated simply enough that respondents can understand them and words in questions are sometimes open to interpretation. This speaks to ambiguity. It can be deduced that participant's reasons for identifying problematic items were also that these items were difficult to comprehend in terms of difficulty understanding certain terminologies and the sense of items being unclear and ambiguous.



According to Weisberg (2005), items need to be phrased and worded simply enough so that participants may understand and respond to questions as intended by the researcher. He further adds that this form of error is most often due to question wording and questionnaire construction. This results in a type of total survey error. More specifically the type of error is known as measurement error and moreover known as measurement bias (Weisberg, 2005). How the question is worded will directly affect how much error there is on that specific item. As researchers, we attempt to minimize measurement error due to respondents by seeking the best way to word questions, and we do that by understanding how respondents process questions.

5.6. Lack of clarity

During the analysis of the transcripts, the researcher identified that one of the more common themes within the data, was that participants found many of the items to have lacked clarity. This lack of clarity then led to further confusion for them, and resulted in participants not

understanding the items. According to Fowler (2009), researchers who do not adequately assess respondents' comprehension of items must assume that ambiguity will not have a large effect on the results. Additionally, the implications of unclear items are likely to result with biased estimates. Defining unclear items or terms would yield and reduce systematic errors in survey measurement, because those items would be better understood (Flower, 2009).

As mentioned before participants found that there were many items that were unclear and even vague. Participants explained why they felt that items were evasive, and asked the researcher further questions to clarify those items. This lack of clarity made it difficult to understand the items as well. The comments below illustrate how participants found it difficult to understand and interpret the items as the researcher intended. Additionally, once they understood the item, they further argued that item 91 represented the same idea or asked the same question as item 95. These can be seen in the example item 91 (School as Support) "*Children at school made fun of me*", further questions were then probed from participants, stating that the items were unclear, and asked if the researcher meant;



"Like I don't understand like in which way because of the situation back home, situation at school" (Item 91).

"Made fun of the poor circumstances back home" or "made fun because of the way I looked and dressed" (Item 91).

"You can even take make fun of me out and put bullied in there. Because ninety one and ninety five is kind of the same" (Item 91).

These were direct statements made by participants. It is clear by the statements that participants were struggling to understand and have clarity as the researcher intended them to have. This can be problematic as stated above, because ambiguity or lack of clarity regarding items will have an effect on the results. Payne (1951), argues that survey questions should be clear. Additionally, they should mean the same thing to all respondents, and they should mean the

same thing to respondents as to the researcher, the individual who will interpret and analyse the answer given. The above further illustrates the need for the items to have been pretested to reduce any measurement error. Participants identified item 138 as problematic as well. The following comments were made;

“What are you poor in the school academics or at home (financially)?” (Item 138).

“Like literally poor like poor or in your work like it’s like a bad thing or something. You understand what I am saying” (Item 138)

“Like when you don’t have money you are poor. You are poor like that or you poor in your work ethic” (Item 138).

“Yes maybe rephrase to I thought that I am not financially stable enough to make a success of my life” (Item 138).

“I couldn’t make success of my life because I was too poor due to financial problems” (Item 138).

Participants indicated that item 138 was not clear enough. It was difficult to deduce what the item was asking. Therefore, it was challenging to choose a response option, because the item was unclear. The comments illustrate the cognitive process that participants underwent to understand the item. This was done by determining if the item was referring to adolescent’s academics or financial status. Once this was established and participants came to an understanding of the item, they then provided a different way the item could be phrased. Essentially, if participants do not read and understand the items as intended by the researcher, measurement error could occur. According to the participants item 121 (Tolerance of soft drugs) appeared to have lacked clarity. The following comments were made about this item;

“First, they should say like what people are referring to because it could be like anyone” (Item 121).

“Maybe rephrase it as most teenagers in my community look forward to the weekend instead of most people in my community” (Item 121).

Participants felt that the item needed to specify whether they were referring to adults or teenagers. Additionally, they argued that because the questionnaire was designed for adolescents, the item would be referring to teenagers within the community.

“Like when you refer to my teachers you think the teachers that teach you and then when you say the teachers on the school is all teachers on the school” (Item 87).

“Would it be all teachers or some teachers that’s the thing?”(Item 87).

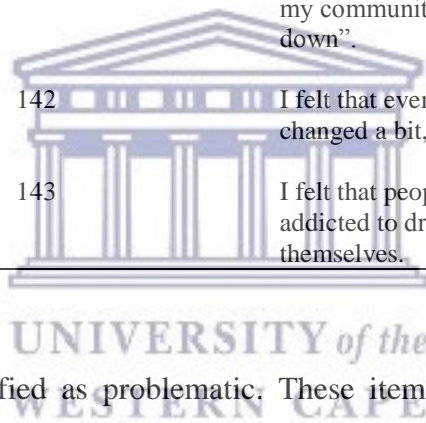
This further indicates that the item appeared to be vague and not specific to participants. These were the types of thoughts that the participants were experiencing at the time. Once again, the comments above indicate the lack of understanding and clarity the participants experienced. Item 87 (School as support) was identified during the pretesting as well. What the comment meant was that many students were receiving support from teachers who are not necessarily teaching them now. Additionally, the participants understood support within the context of social, emotional and educational support.

5.7. Pretesting of original items as part of the revised scales

The items below were identified by participants during the pretesting phase. These items were not initially considered by the researcher to have needed pretesting because of prior validation that was completed. These items were however included in the pretesting because they formed part of the scales that were being pretested.

Table 3: *English pretested scales*

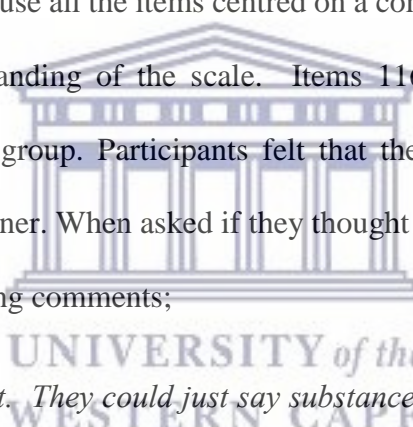
Scales	Item No	Item Description
Tolerance of soft drugs	116	I felt it wasn't right for the people in my community to talk about alcohol abuse as if it is a normal and everyday thing.
	117	I felt that it wasn't right for the people in my community to talk about dagga use as if it is a normal and everyday thing.
Hopelessness Individual	129	I felt that people in my community who are addicted to drugs could not help becoming addicted.
	136	It was clear to me that my past experiences have not prepared me well for my future.
Hopelessness Community	140	I felt that drugs are more common in poorer community's due to poverty.
	141	When people tried to do good things for others in my community, other people "brought them down".
	142	I felt that even if circumstances in my community changed a bit, it will not last.
	143	I felt that people in my community who are addicted to drugs won't put in the effort to help themselves.



The above items were identified as problematic. These items received similar comments regarding the understanding of each item. These items were not initially recommended to have been pretested. However, the reason why these items were not removed in the affected subscales was to provide participants a deeper and greater understanding as to what each scale was intended to measure. If participants only found one or two items under a scale, they would likely feel that the entire scale was not necessary. Additionally, these items were not removed because during the pretesting, the researcher did not single out which needed to be pretested. This was done, so that he would not lead participants or enforce his own opinions or thoughts onto them, but instead allow for participants to form their own opinions, and track their own thoughts surrounding the comprehension of the items. In addition, these items were pretested

as part of the initial development of the instrument but not within the current theoretical framework.

The framework is meant to structure the analysis and discussion, and therefore much thought of the Multi-component approach was given during the data collection for the study. The second stage of the approach is retrieving relevant information from memory. According to Alba and Hasher (1983), retrieval depends on different factors. These range from how well the topic is known, or how much experience the participant has in retrieving information from memory and whether the question provides enough cues to facilitate retrieval. Therefore, having these items in addition to the pretested items within each scale provided better cues to facilitate retrieval. This is because all the items centred on a common theme within each scale, which added to their understanding of the scale. Items 116 and 117 were identified by participants during the focus group. Participants felt that the items were asking the same question but in a different manner. When asked if they thought the items should be phrased as one, they provided the following comments;



*“Yes they could do that. They could just say substance abuse or something like that”
(Items 116 and 117).*

“116, 117 and 118. That could all be in one sentence. It is basically repeating itself. The way they talk about what they say there it wasn't right because they talk about the community to talk about alcohol abuse as if it was a normal or everyday thing. I would like to know the way they talk about it how was it. They say the right thing or the wrong thing or do they brag about it. They can think of normal and say is it right thing or is wrong or they say it is right to do it or wrong to do it and I felt that energy that they are happy about it” (Item 116 and 117).

Another item that was identified as lacking clarity, was item 136.

*“It was clear to me that my past experiences have not prepared me well for my future”
(Item 136).*

Participants stated that the item was unclear and they did not understand it. Again, the lack of clarity made it difficult to understand what experiences the item was referring to. The comments below indicate how participants attempted to understand the question by asking questions about the item. Once again, the lack of clarity experienced by participants can impact the results of the questionnaire, thus creating measurement error. These were the comments made by participants;

“What specific experiences are they referring to, being mugged, raped?” (Item 136).

“I would like them to be more specific. What past experiences because you don’t know what, because some people get raped, some get stabbed? And now how is that prepared for our future? Do they mean bad or good experiences?” (Item 136).

Item 142 (Hopelessness Community) was identified as being problematic, even though it was not initially part of the item pre-test pool. The participants understood the item; however, they felt that the item itself was unclear. This indicates that the item would also fall under the second theme of this chapter. The following comment was made regarding the item;

“Explain on one forty two” (Item 142).

“Referring to what circumstances so what’s happening to someone. There is so much stuff happening in the community like there is gangsterism and there is drugs so what are you actually referring to?” (Item 142).

“Maybe they could have said that even if the bad things happening in the community will change it would eventually come back” (Item 142)

Participants felt that the item needed to indicate what circumstances it was referring to. They gave additional comments, arguing that the item could be referring to substance use because the questionnaire aims to measure factors associated with substance use, however, many other learners may not necessarily know this. Therefore, indicating what circumstances would essentially assist in comprehending the item fully.


5.8. Afrikaans Version

The following section includes the analysis and findings on the Afrikaans version of the SASUCRI subscales that were pretested. This section will include a discussion regarding the translation of the instrument. Additionally, the analysis and findings provide the English translation for the Afrikaans quotations that were extracted from the transcriptions. Furthermore, the structure will be similar to the previous section, identifying items that were seen as problematic and reporting on inputs participants provided.

5.9. Items Identified from the Afrikaans Version of the SASUCRI

The table below indicates the items that were originally selected by the researcher to be pretested because of the initial validation results.

Table 4: *Afrikaans pretested scales*



Scales	Item No	Item Description
Individuele Wanhoop	132	Het ek gevoel dat ek net sowel kan opgee, omdat daar in elk geval niks is wat ek kan doen om dinge beter te maak nie.
	134	Het dit gelyk of dit onwaarskynlik is dat ek enige vreugde in die toekoms gaan put
Wanhoop oorgemenskap	135	Het die toekoms vir jy vaag en onseker gelyk.
	136	Was dit duidelik dat gebeurtenisse in my verlede my nie goed voorberei het vir my toekoms nie.
	144	Het niemand belangstelling in die verbetering van ons gemeenskap geopenbaar nie.

5.10. Themes Identified

The first section of the analysis was guided by the first component of the Multi-Component Approach which is the comprehension section. The analysis was done similarly to the English

version of the instrument, however it differed. The method of the content analysis was conducted the same as the English version, however there was an extra step which included translations of the transcriptions. As mentioned before, the theoretical framework served as a method of gaining a better understanding of whether participants understood the items that were presented. Also, the multi-component served as a guide to identify comprehension issues with regards to measurement error.

The second section of the Afrikaans findings includes an analysis that contains items that were not initially identified by the researcher to be problematic, but were identified by the participants. This process was applied within the English version as well. The third section of the analysis has the suggestions the participants provided to rephrase some of the items. The results of the analysis for both language versions of the instrument are very similar in terms of the themes that were identified. However, with regards to the Afrikaans version, the analysis indicated that participants identified grammatical errors with the way items were being phrased. The Afrikaans analysis yielded two themes that were also found within the analysis of the English version of the SASUCRI; these themes were “comprehension” and “Pretesting of original items as part of the revised scales”.

5.11. Comprehension

The items identified presented similar comprehension issues as mentioned before in the English language version. The lack of comprehension would then lead to further measurement issues which results in having incorrect data. The comprehension analysis will include the spelling and grammatical errors participants identified as problematic. The following comments were made by participants regarding the items;

“Meneer ek dink, ek dink dit sou maklik gewees, makliker gewees het as sommige van die vrae in vrae gewees het want dit word gesê eintlik hierso. Het onderwysers

my ondersteun? So as meneer miskien kan, of as dit 'n vraag vra, soos: Ondersteun onderwysers by jou skool....” (General statement about items).

Translation: *Sir, I think it would be easier if some the sentences were phrased as questions and not statements, because it states here, were my teachers supportive of me? So if you can maybe for example ask the question like: Do teachers support you at your school...*

“Voel jy die onderwysers het jou geondersteun?”(General statement about items).

Translation: *Do you feel that teachers are supportive of you.*

“Wat is put?” (Item 134).

Translation: *What is produce/recieve/get any ?*

“Ek, okay wat ek hier sien, is dat hulle bedoel, hulle sê uitkry” (Item 134)

Translation: *Okay, what I see, they meant to say was receive*

“Dis onwaarskynlik dat ek enige vreugde in die toekoms gaan kry”,

“Dis onwaarskynlik dat ek enige vreugde in die toekoms sal uit die lewe uitkry”(Item 134).

Translation: *It seemed unlikely that I would get any real life satisfaction in the future.*

The first comment presented was represented as a general overall statement in the way items were being phrased. The participants felt that it would be easier to understand the items better, if the items were phrased as questions rather than just statements. The next comment about item 134, was made because the participant did not understand a specific word. This lead to them not understanding the item as a whole. Further comments illustrate a change of understanding but also a easier way to phrase the item in a manner that can be better understood by all participants. The comments about Item 134, indicates how having different participants feeding off one another creates a consensus for understanding the item better, but also methodologically proves why focus groups was more appropriate for this study than individual interviews.

“Wat beteken vaag??” (Item 135)

Translation: *What does vague mean?*

“Dit is basies dieselfde as onseker of onduidelik” (Item 135).

Translation: *It means the same as uncertain or unclear.*

“Die word onduidelik sal meer maklik wees om te verstaan” (Item 135)

Translation: *The word unclear would be easier to understand.*

“Oor die afgelope 30 dae het die toekoms vir my onduidelik en onseker gelyk” (Item 135).

Translation: *During the past 30 days, the future seemed unclear and uncertain.*

The above comments follow a similar trend and train of thought as the previous comments that were made by participants. Participants raised concerns for not understanding the word “vaag” for Item 135. Therefore not understanding the word would create further issues for trying to understand what the item was asking and thus ultimately leading to possible measurement error once data had been analysed quantitatively. The comments further illustrate that once the word “vaag” was explained and substituted for “onduidelik” participants began to understand the item more. Once this was done, participants further argued that using the word “onduidelik” instead of “vaag” would be easier for participants to understand and potentially, adolescents within the same age range would find it easier to understand. The substituting of the word “onduidelik” is a step that would then ensure that the participants understand the items as the researcher intended them to. As, Weisberg (2005), argues, this is critical for limiting the amount of measurement error that could occur. By substituting the word “onduidelik” participants changed the item in a manner which may be more familiar to them linguistically. This further relates to adolescents speaking a different type of Afrikaans, and not necessarily “pure” Afrikaans.

“Wat is gebeurtenis” (Item 136).

Translation: *What is experiences.*

“Gebeurtenisse, okay. Gebeurtenisse is goed wat met my gebeur het, nê? So dinge wat in my verlede gebeur het” (Item 136).

Translation: *Experiences, okay. Experiences are things that have happened to you. So things that have occurred in my past.*

“Oh, is like openbaar, it is like a groot woord” (Item 144).

Translation: *Oh, “showed/revealed” is a big word.*

“Okay, so jy, die woord openbaar is ’n bietjie moeilik om te verstaan. Kom ons gebruik, gewys” (Item 144).

Translation: *Okay, so the word “openbaar” is a bit difficult to understand. Let’s use indicate.*

“Oor die afgelope 30 dae, het niemand belangstelling in die verbetering van ons gemeenskap gewys nie” (Item 144).

Translation: *In the past 30 days, nobody indicated any interest towards in bettering the community.*

The above comments also follow a similar trend to the previous comments; however, the researcher discovered more information about the items in terms of comprehension levels of participants and the Afrikaans dialect being used on the instrument. The first comment illustrates that participants could not understand what the word “gebeurtenis” meant, therefore creating a further lack of understanding for the entire item. Once the word was explained participants then began to have a better understanding of the item. Additionally, participants revealed that on item 144 the word “openbaar” was a “big” word to understand. Participants further came together and suggested an easier way to phrase the item by substituting the word “openbaar” so that they could understand the item better and that other adolescents may not experience the same difficulty. The findings once again indicate that there is a variation of an Afrikaans dialect that is largely spoken amongst adolescents in the Western Cape. Additionally, these types of differences need to be noted when translating items.

The data indicated that participants did not understand certain terminologies. This pointed towards a need to change certain words and phrases to simplify and clarify difficult terms. The lack of understanding the “big words” may indicate some contextual influence. This may

indicate that the variation of Afrikaans that was used might not have been the most appropriate for this sample of adolescents. What this revealed is that the participants and the representing sample population are from a low socio-economic background, the type of Afrikaans dialect that they tend to speak and understand would be more colloquial. Therefore, words such as “gebeurtenisse”, “openbaar”, “put” and “voortduur”, present a variation of Afrikaans that is not typically used amongst adolescents within these communities. These types of terminologies are used more amongst affluent communities and by individuals who speak a purer dialect of Afrikaans. Additionally, it needs to be noted that the participants were adolescents and thus they speak in a certain manner, which can be different to a more standardised Afrikaans dialect. Furthermore, the manner in which they speak may also affect the way that they read and understand.

5.12. Pretesting of original items as part of revised scales

Though in the English section there was another theme identified “lack of clarity”, this was not found within the analysis of the Afrikaans items. The following items were presented within the discussion because although they were not originally identified by the researcher. The items selected were rewritten after the initial validation study. Thus, the other items were included because they formed part of the subscales that were changed during the initial validation.

Table 5: *Items not originally identified by researcher to be pretested*

Scales	Item No	Item Description
Skool as ondersteuning	86	Het ek gevoel dat skool nuttig is omdat ek baie daar leer.
	88	Het ek gevoel dat die fasiliteite wat vir my na skoolure beskikbaar is, baie nuttig is.
Wanhooop oorgemenskap	141	Het sommige mense in my gemeenskap, die mense wat probeer om goed te doen vir ander in die gemeenskap, afgekraak.
	142	Het ek gevoel dat selfs as omstandighede in my gemeenskap bietjie verbeter, dit nie lank sal voortduur nie

As mentioned previously the above items were identified by participants throughout the pretesting and not originally by the researcher. The comments regarding the items are similar to what was said for the previous items. In addition, as with the English item, these items were not removed as well, because during the pretesting, the researcher did not indicate to participants which items he was interested to be pretested. This was done, for the same reason stated in the English version of the findings. The following quotes are considered to be part of the items that were not originally chosen to be pretested. These items were included to provide contexts for participants. Thus, including all items of the scales.

“Verskonings, wat is nuttig?” (Item 86 and 88).

Translation: *Excuse me, what is “nuttig(useful)”.*

“Wat bedoel jy presies met nuttig?”(Item 86 and 88).

Translation: *What is exactly meant by “nuttig”?*

Though the items were listed as those not being originally chosen to be pretested, these were items still found to lack comprehension and understanding for specific terms and words. The above comments illustrates that participants had a challenging time understanding the item

because they did not understand the word “nuttig”. This issue seems to pose a significant problem, firstly because participants did not understand the term and secondly the term was used in more than one item. Therefore, if participants did not understand the term in the first item, most likely they would not understand the term in the next item. Thus if participants understood both items incorrectly, and not as the researcher intended, this would create a larger set of measurement error quantitatively. Lastly, the above phrase illustrates and reveals the importance of cognitive testing to reduce the amount of error created. Meaning that cognitive testing could prevent this type of problematic experiences participants may encounter when answering a questionnaire. The following quotes were extracted from the transcriptions.

“So wat is like afgekrak?” (Item 141).

Translate: *So what is “afgekrak” (bring down).*

“Afgekrak is soes, Ja, jy is useless en kyk hoe lyk jy en ek kraak jou af man, ek breek jou af”

Translate: *So its like your trying to bring or break someone down.*

“Maar ek dink die hele sin is moeilike om te lees en verstaan” (Item 141).

Translate: *But I think the entire sentence is difficult to read and understand*

“Wat beteken die word “voortduur?” (Item 142).

Translation: *What does the word “voortduur(continue) mean?*

“n Makliker woord soes aanhou sal beter wees, omdat almal sal verstaan”(Item 142).

Translation: *A easier word such as “aanhou”(continue) would be better, because everyone would understand.*

“Oor die afgelope 30 dae het ek gevoel dat selfs as omstandighede in my gemeenskap bietjie verbeter het, dit nie lank sal aanhou nie” (Item 142).

Translation: *In the past 30 days I felt that even if circumstances in my community change a bit, it will not last.*

The comments above reveal the lack of understanding participants had with the items. The word “afgekrak” was identified as being problematic because participants did not know what it meant. This led to further confusion, where participants mentioned that the entire sentence was difficult to understand because they did not know what afgekrak meant. Once again if participants cannot understand the item correctly, they would not be able to provide an adequate answer to reflect their accurate response. Therefore the results given would contain some sense of error. To further illustrate participants' thought patterns, Item 142 was seen to be problematic. Participants asked what the word “voortduurt” meant. Again revealing a lack of understanding and comprehension. Furthermore, the next comment indicates how as a group participants' cognitive processes changed, where they substituted the word “voortduur” for “aanhou”. The words meant the same, however the term “aanhou” was more commonly used and understood among the participants. The new rephrased item was deemed better to them and was consensually understood by everyone and would most likely be understood by adolescents around the same age and in similar communities, as these participants are perceived as representatives of the target population, that the SASUCRI was aimed at.

5.13. Colloquialism and difficulty with translation

This theme was briefly discussed within the other themes, because this theme is pervasive throughout the research findings. This overlap, indicated the complex nature of these research findings. The research findings indicated that the dialect used within the SASUCRI has been a significant challenge for participants. Most of the terminology that was employed, presented a dialect of Afrikaans that was not familiar to participants and was not used in their daily conversation. This can be seen by some of the comments provided from the above;

“*Wat is put?*” (Item 134)

“*Wat beteken vaag?*” (Item 135)

“Wat is gebeurtenis” (Item 136)

“Oh, is like openbaar, it is like a groot woord” (Item 144)

“n Makliker woord soes aanhou sal beter wees, omdat almal sal verstaan” (Item 142)

The above quotations were taken from the previous analysis that was conducted. Thus the translation for the quotes are provided with the initial analysis. The first two quotations might not seem to demonstrate this theme accurately. However, these quotations need to be analysed by examining the words “put” and “vaag”. The Afrikaans analysis indicated that there were participants who did not understand the word “put” that was used within the item. The terminology brings forward further difficulty, when trying to directly translate the word. The translation becomes challenging when the direct translation becomes “to get any”. This translation does not necessarily make sense. Therefore the translation needs to be contextualised (by the target population). Thus, when items are being translated, it is imperative that the language dialect of the target population be considered. Therefore the theme of colloquialism comes forth. The word “put” is not generally used by adolescents and is even less likely to be used by adolescents who reside in low socio-economic status communities. The Afrikaans dialect of the word “put” may be considered as a more traditional and formal manner of speaking. Whereas adolescents in general employ a dialect that is more colloquial. The specific dialect being used by adolescents daily, can explain how they might not understand or be familiar with a more traditional Afrikaans dialect. In regards to the above, it may be necessary to phrase items using a dialect that is familiar to the target population.

The previous theme of comprehension alluded to the idea that participants spoke a different dialect of Afrikaans that was not necessarily considered to be a traditional standardised Afrikaans dialect. The findings pointed towards participants not being familiar with the terminology such as “vaag”. However, once the term was explained, it was then later decided

that “onduidelik” would be a more suitable term, because it is a term that is more commonly used amongst the participants. The word “vaag” could be considered to be a more traditional dialect that is not necessarily used amongst adolescents. It therefore could be deduced that because “vaag” is employed using a standardised dialect, and not colloquially, adolescents would not be able to relate to or understand the term. Additionally, the analysis revealed that the direct translation for the word “openbaar” presented itself with a challenge, since the direct translation did not make any sense. Therefore, this indicates that items need to be written, understood and read within context. As mentioned previously in the analysis, participants found it difficult to understand the term, because it was used within a dialect that was not familiar or used by them.

The previous quotations revealed that participants thought that the terminology used was considered to be “big words”. This revealed that there was a lack of understanding. The analysis thereof indicated there may be some contextual influences at play. As previously explained, participants use a non-standardised Afrikaans dialect, that was not necessarily employed within the development of the items for the SASUCRI. This led to a lack of comprehension of the items and participants suggesting more colloquial terms be employed. Additionally as mentioned previously, it is imperative to employ a translator who speaks and understands the dialect of the target population, when he/she is translating the items.

5.14. Summary of research findings

This section of the chapter will present a summary of the research findings that were analysed and discussed above. In addition the section will discuss the summary by listing the themes identified and what results were found from the data analysed. As recommended and predicted by Rawoot and Florence (2017), conducting a pretest on the selected subscales provided imperative input from participants, regarding comprehension of items, translations of the items and also the level of familiarity with the content of the items.

5.15. Comprehension

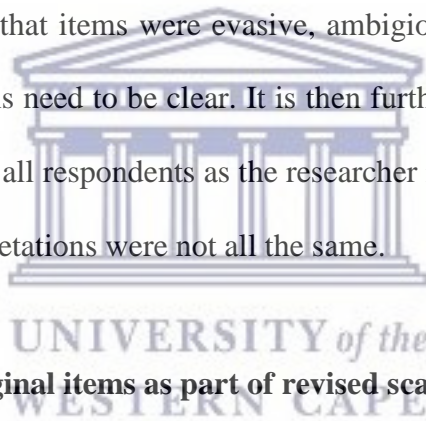
Both language versions of the instrument appeared to have comprehension issues at an item level. This was revealed by the data that was analysed. The findings indicated that participants presented a lack of understanding when reading the items. Additionally, participants struggled to understand certain concepts within the context of items. The English and Afrikaans results indicated that participants felt that certain concepts or terms would be better suited for the question, to appear simpler so that respondents may understand and interpret the item as intended. Additionally, the findings also concluded that participants had rephrased items to better understand and relate to them.

The findings include more items that had comprehension issues and has a more indepth analysis and discussion regarding the items. The examples provided above overlap between both the English and Afrikaans pretest. The difficulty that participants experienced with regards to understanding the items, can directly be linked to the theoretical framework that was used within the study to guide both the data collection and the analysis. According to Weisberg (2005), items need to be phrased simply enough for participants to understand. Ferner (1956), argues that participants will most likely answer questions even though they may not understand it fully, therefore it is crucial that items be worded simply enough for participants to understand.

These arguments can be found within the findings. Many participants experienced comprehension issues with either the entire item or specific words or phrases. Some of these examples can be viewed above in the beginning of the chapter.

5.16. Lack of clarity

Additionally, though the pretesting of the English version found issues around lack of clarity and levels of ambiguity in items. This was not found within the Afrikaans pretest. According to Flower (1992), it is important for researchers to assess respondents' comprehension of items. Additionally, ambiguity may have a large effect on the results of items, if the assessment is not conducted. Therefore, unclear items are likely to result in biased estimates. The findings indicated that participants felt that items were evasive, ambiguous and unclear. According to Payne (1951), survey questions need to be clear. It is then further argued that questions need to mean the same thing across all respondents as the researcher intends. This is evident by the findings as participants' interpretations were not all the same.



5.17. Pretesting of original items as part of revised scales

The findings revealed that there were certain items which participants identified as problematic. These specific items were not originally identified by the researcher to be pretested. These items were not removed from the pretested subscales. This was to provide participants with a greater understanding as to what the scale intended to measure. Furthermore, the researcher did not single out any of the items he intended to pretest, in order to provide a platform for the participants to have their own perceptions about the items. In doing this, the researcher's own opinions and ideas would not have been enforced onto participants, thus providing a more naturalistic environment. The researcher employed this step because the data collection and analysis was guided by the theoretical framework. The second stage of the Multi-component approach states that retrieval of information relies on various factors such as how well the

participants know the topic and how much experience they have in retrieving the information from memory. Additionally, it also depends on whether the question provides enough cues to facilitate retrieval (Alba & Hasher, 1983). This then reiterates the idea that the items were not removed from the affected subscales because they were used as cues to better facilitate retrieval.

Though this is a theme on its own. This theme is interlinked with comprehension and lack of clarity. The first two themes were sub themes found within the items that were not originally identified by the researcher. This can be seen by reviewing the findings on item 136. The findings indicated that participants found the item to be unclear. Participants were struggling to identify the type of experiences that the item was referring to. This led them to not be able to respond to the item appropriately. The Afrikaans analysis and discussion also provided this main theme with its aforementioned sub themes. The findings indicated that participants struggled to understand certain terms. This can be related to level or type of Afrikaans that adolescents speak. As mentioned before, this may not necessarily be standardised Afrikaans.

5.18. Colloquialism and difficulty with translation

The research findings revealed a theme of colloquialism. This theme may not be within the guidelines of the theoretical framework, however, it was a key finding nonetheless. Additionally the analysis of this theme from the data provided evidence to prove that there were two different Afrikaans dialects present, that is, one used by the participants and a different dialect used in the items of the SASUCRI. The dialect that participants spoke was considered non-standardised, whereas the dialect used within the instrument was standardised and more traditional. The findings clearly indicate that the input added by participants has provided greater insight into the spoken dialect of participants, the level of familiarity of items, their comprehension of items and also issues regarding the translation of items.

The dialectic challenges indicated that there are contextual influences that need to be considered when wording items. This is crucial for the Afrikaans version of the instrument because the participants spoke a different dialect. Because participants used a non-standardised dialect, it affected how they read, comprehended and interpreted the items. This was evident by the findings of this study. The analysis provided quotations from the data, where participants expressed their concerns about not understanding the items, because the terminology was not familiar. Thus if one were to analyse this study, because of the variation in dialect that was used by both participants and the items of the SASUCRI, the lack of comprehension and misinterpretation of items may affect the results of the data collected from the instrument.

5.19. Conclusion

The data was gathered through focus groups and then later transcribed and analysed using a content analysis. The analysis was done per item to provide specific input at item level. The analysis and discussions provided the themes mentioned above. As stated previously, these themes were guided and structured according to the theoretical framework employed in the study. Though there were themes that emerged, which fall outside of the framework, they still proved to be crucial to the study and specifically to the development of the instrument.

CHAPTER 6: Conclusion

6.1. Summary of findings

The study aimed to pretest specific items in some of subscales of both language versions of the SASUCRI to contribute to the validation argument for the SASUCRI. The initial validation of the SASUCRI as discussed in chapter 4 led to the revision of various items. This study served to pretest these revised items. The study was recommended by a previous validation study. This was revealed in Chapter 5. The aims of the current study were as follows;

The overall aim of the study was to contribute to the validation of the SASUCRI, however more specifically, it was to pretest the revised items in some of the sub-scales.

- To pretest the revised or new items added to the SASUCRI

The objectives of the study were to investigate whether the participants understood the revised or new items within the SASUCRI.

- To investigate if the participants felt the revised or new items were appropriate in terms of its content validity
- To investigate whether participants understood the language used for the revised or new items and whether this was appropriate
- To investigate whether the participants feel the items were phrased appropriately
- To see how well the participants can relate to the revised or new items

The findings presented in the previous chapter aimed at investigating and providing information that can answer the above objectives. The first aim of the study was met. The sub-scales were pretested qualitatively to investigate participants' comprehension levels with regards to the items. The study highlighted the importance of a pretest being conducted by

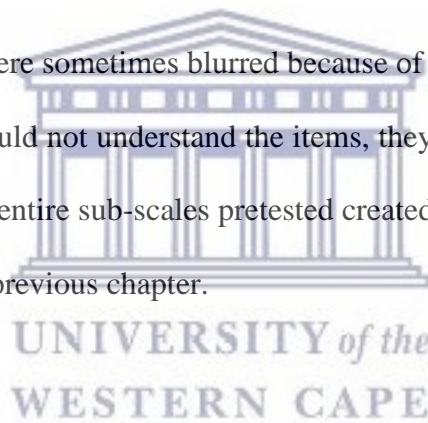
reviewing previous cognitive studies and how their studies added to instrument's validation. The study also demonstrated the significance of the current study. The findings indicated that there were several comprehension issues with regards to the pretested items. The findings revealed additional items in the affected sub-scales that were also found to be problematic for participants. The main objective of the study was met. The previous chapter provides information on whether participants could understand the items. The findings on both the English and Afrikaans version of the SASUCRI demonstrated comprehension issues at item level. The findings indicated that participants found it difficult to understand the pretested items. This was either because they could not understand the entire item or they could not understand specific words or concepts. The comments indicated how having different participants feeding off one another created a consensus for understanding the item better, but also methodologically proved why focus groups was more appropriate for this study than individual interviews.

The study met the second objective of investigating the subscale or item's content validity. Participants struggled to understand the items; this affected the instrument's content validity. If participants are not able to comprehend the given items, the content of the item may not measure what it was intended to measure. The study contributed to the sub-scales content validity, by providing input into the linguistic validities of the pretested sub-scales of the SASUCRI.

The study met its third objective by investigating whether participants understood the language being used. This is particularly true for the Afrikaans version of the instrument. The findings indicated that participants struggled to understand the items because of the Afrikaans dialect in which the items were originally written. Adolescents in the Western Cape maintain a unique means of expression. This dialect differs (extensively) from the other provinces; this potentially hindered the items from being fully understood. Thus, the findings provided greater input into

the spoken dialect of the representative sample and this information can be used for future decisions regarding item wording for the Afrikaans version of the SASUCRI.

Both the last two objectives were met during the study. The researcher investigated the appropriateness of items according to participants and investigated the familiarity levels of items in terms of context. The findings provided information that informs the appropriateness of items. The previous chapter illustrated that some of the items for the English and Afrikaans version, were not appropriately written and phrased. The chapter further recommends what participants found more appropriate in terms of how items could be written and phrased. The findings also indicated participants' familiarity levels with items in terms of context. Participants were familiar with the context of items and what the subscales aimed to measure. However, these perceptions were sometimes blurred because of the comprehension issues that arose. Because participants could not understand the items, they felt that they could not relate to them. Additionally, having entire sub-scales pretested created context for participants. This can be seen by reviewing the previous chapter.



6.2. Limitations

It could be argued that the sample selection may have compromised the data collection. The selected samples were only individuals who attended high school. The researcher did not include non-school goers. This can be perceived as a limitation of the study. Recruiting non-school goers could have contributed towards item wording and hidden nuances found especially for the Afrikaans analysis. Excluding non-school goers may have resulted in the diminishment of significant findings. It can be argued that non-school goers could have produced a different perception to the sub-scales than that of the school goers. In addition, non-school goers could have revealed more contextually relevant findings on each item. This in

turn, would have provided the researcher with a greater understanding to how participants related to the subscales.

An additional limitation of the study was that the researcher did not engage with the response options of the new and revised items. This area usually warrants substantial consideration during cognitive pretesting studies. Although, the researcher adopted a position to feed into an existing instrument, one is typically bound by pretesting protocols to solicit information on the item response options.

6.3. Recommendations

It is unrealistic to expect every single adolescent within the Western Cape to understand the entire instrument. There would also be extraneous variables at play. It is, however, possible to have items that can be understood widely by most adolescents in the target population. This is evident by examining the research findings presented in the previous chapter, where the theme of comprehension was prominent throughout the discussion. It is recommended that these findings be utilised to revise the pretested items so that future participants may have a greater understanding of the items. Additionally, it would be advisable to employ a translator who resides in the Western Cape but more specifically an individual who is familiar with dialects spoken in the target population. This would give the individual more contexts regarding the spoken dialect that needs to be used when revising the English and Afrikaans versions of the items. Because the instrument is intended to measure subjective factors with adolescents from low socio-economic-status communities, a researcher from the same background might be able to interpret the dialect better and improve future decisions on item wording. Once these revisions are successfully completed, it is recommended that another pilot study be conducted. The new revised items would need to then undergo another equivalence study. This would

better inform the researcher, by providing evidence as to whether the changes to the revised versions were more appropriate than previously, thus making the instrument more valid.

The research findings revealed that participants provided recommendations for rewording the items. This was suggested because participants indicated that the revisions would prove to be easier for other participants to understand. This is significant for the Afrikaans version of the SASUCRI because the recommendations were provided within a non-standardised dialect that is commonly used amongst the participants and the target population generally. Therefore, these recommendations incorporate the changes that participants suggested. The previous chapter unpacked each item with its recommended change. The table below provides a general sense of the all the recommended changes per item;

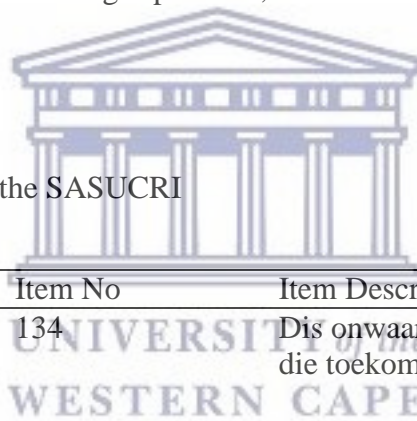


Table 1: Afrikaans Version of the SASUCRI

Scales	Item No	Item Description
Individuele Wanhoop	134	Dis onwaarskynlik dat ek enige vreugde in die toekoms gaan kry / Dis onwaarskynlik dat ek enige vreugde in die toekoms gaan uit die lewe uitkry.
	135	Het die toekoms vir my onduidelik en onseker gelyk.
	142	Het ek gevoel dat selfs as omstandighede in my gemeenskap bietjie verbeter het, dit nie lank sal aanhou nie.
Wanhoop oorgemenskap	144	Het niemand belangstelling in die verbetering van ons gemeenskap gewys nie.

6.4. Conclusion

As stated previously, there is a need for a more complete understanding of the etiological, social and environmental factors that contribute towards substance use. A better understanding of these interactions will contribute to targeted preventative measures. Once these are identified, developmental trajectories can be predicted and manipulated to affect the outcomes. Additionally, instruments such as the SASUCRI are needed to measure factors associated with substance use, to fully understand the relationship between risk and protective factors, and to develop preventive measures.

The study itself, presented as a pretesting phase, which was recommended by a previous validation study. This study revealed crucial information around item wording, dialectic and comprehension challenges; it also indicated the importance of pretesting survey instruments. This chapter indicated the limitations and recommendations of the study. As previously mentioned, one of the limitations proved that the data gathered was not necessarily rich, because a focus group method was employed. It can be argued that individual interviews would have provided richer data. The research findings and recommendations provided input about the dialectic challenges that were revealed from the data. The recommendations provided a platform to implement key changes to item wording, which was recommended by the participants. Therefore, the changes that were recommended need to be carefully implemented by researcher of the larger study. Lastly, the current study provided input towards improving the validity of the SASUCRI for the use in the target population. In doing so, it contributes to ensuring that the SASUCRI measures what it is meant to measure, thereby making a valuable contribution to understanding and intervening in the area of adolescent substance use.

Reference list:

- Alba, J. W., & L. Hasher. (1983). "Is Memory Schematic?" *Psychological Bulletin* 93:203-31.
- Arthur MW, Hawkins JD, Pollard JA, Catalano RF & Baglioni AJ Jr, (2002). Measuring risk and protective factors for substance use, delinquency, and other adolescent problem behaviors. The Communities That Care Youth Survey. *University of Washington*, USA. DOI: [10.1177/0193841X0202600601](https://doi.org/10.1177/0193841X0202600601)
- Australian Bureau of Statistics Perspective (2001), Pre-Testing in Survey Development. *Population Survey Development, Australian Bureau of Statistics.*
- Bastari, B & Sireci, S. G. (1998). *Evaluating construct equivalence across adapted tests.* University of Massachusetts-Amherst.
- Bautista, R. (2012). An overlooked approach in survey research: Total survey error. In L. Gideon (Ed.), *Handbook of survey methodology for the Social Sciences.* New York: Springer.
- Brook, J. S., Morojele, N. K., Pahl, K., & Brook, D. W. (2006). *Predictors of drug use among South African adolescents.* *Journal of Adolescent Health*, 38, 26-34.
- Bronfenbrenner, U. (2005). *Making human beings human: Bioecological perspectives on human development.* USA: Sage Publications.
- Bolton R. (1993) Pretesting questionnaires: content analyses of respondents' concurrent verbal protocols. *Marketing Science* 12, 280-303.
- Carbone ET, Campbell MK, Honess-Morreale L. (2002) Use of cognitive interview techniques in the development of nutrition surveys and interactive nutrition messages for low-income populations. *Journal of the American Dietetic Association.* 102(5):690-696.

- Collins, D. (2003). *Pretesting Survey Instruments: An overview of cognitive methods*. Kluwer Academic Publishers. Printed in the Netherlands.
- Czaja R. (1998) Questionnaire pretesting comes of age. *Marketing Bulletin* 9, 52–66.
- Czaja R & Blair J (1996). *Designing Surveys: A guide to Decisions and Procedures*. California: Pine Forge.
- Dada, S., Burnhams, N. H., Johnson, K., Parry, C., Bhana, A., Timol, F., & Fourie, D. (2015). Alcohol and drug abuse trends: November 2015 (Phase 38).
- Dalen, K., Jellestad, F & Kamaloodien, K. (2007). *The translation of the NEPSY –II to Afrikaans, some ethical reflections*. Romanian Association for Cognitive Science. Volume XI, No. 3 (September), 609 – 620.
- DeMaio, Rothgeb & Hess (1998), *Improving survey quality through pretesting*. U.S. Bureau of the Census, Washington, DC 20233.
- DeMaio, T., Mathiowetz, N., Rothgeb, J., Beach, M.E., & Durant, S (1993). *Protocol for Pretesting Demographic Surveys at the Census Bureau*, Census Bureau Monograph, Washington, DC: U.S. Bureau of the Census.
- Dowling, M. (2006). Approaches to reflexivity in qualitative research. *Nurse Researcher*, 13(3), 7-21. Retrieved from Academic Source Premier database, www.ebscohost.com (Accession number 20930000).
- Ericsson, K.A. & Simon, H.A. *Protocol Analysis*. Massachusetts: The MIT Press, 1984.
- Ericsson, K.A. & Simon, H.A. “Verbal Reports as Data,” *Psychological Review*, 87:215-251, 1980.
- Ferber, R. (1956). “The Effect of Respondent Ignorance on Survey Results.” *Journal of the American Statistical Association* 51:576-86.

- Flisher, A. J., Parry, C. D. H., Evans, J., Muller, M., & Lombard, C. (2003). *Substance use by adolescents in Cape Town: Prevalence and correlates*. *Journal of Adolescent Health, 32*(1), 58-65.
- Florence, M. (2014). The validation and adaptation of the South African Substance Use Contextual Risk Instrument. (PhD thesis). Bellville: The University of the Western Cape, Psychology Department.
- Fowler, F.J. (2009). *Survey Research Methods* (4th ed.). Thousand Oaks, CA: Sage Publications. Doi: 10.4135/9781452230184.
- Fowler Jr. FJ & Cannell CF (1996). Using behavioral coding to identify cognitive problems with survey questions. In Schwarz, N & Sudman, S (eds). *Answering Questions: Methodology for Determining Cognitive and Communicative Processes in Survey Research*. San Francisco: Jossey-Bass Publishers, 15-36.
- Geer, J. G. (1988). "What Do Open-Ended Questions Measure?" *Public Opinion Quarterly 52*:365–71.
- Gideon, L. (2012). Introduction to issues of survey methodology. In L. Gideon (Ed.), *Handbook of Survey Methodology for the Social Sciences*. New York: Springer & Business Media. Doi: 10.1007/978-1-4614-3876-2_1
- Hamdulay, A. & Mash, R. (2011). *The prevalence of substance use and its associations amongst students attending high school in Mitchells Plain*. Cape Town: South Africa.
- Haeger, H., Lambert, A.D., Kinzie, J., & Gieser, J. (2012). *Using Cognitive Interviews to Improve Survey Instruments*. Lumina Foundation for Education. Bloomington, IN: Indiana University, Center for Postsecondary Research.

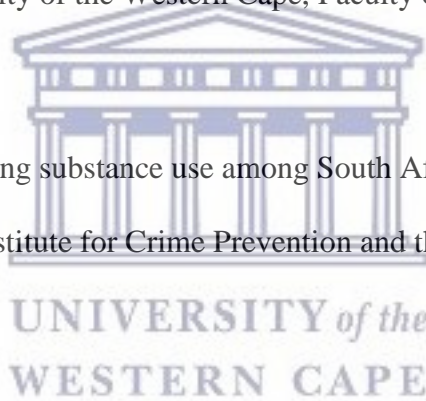
- Hesse-Biber, S. N., & Piatelli, D. (2007). Holistic reflexivity. In S. N. Hesse-Biber (Ed.), *Handbook of feminist research: Theory and praxis* (pp. 493-514). Thousand Oaks, CA: Sage Publications Inc.
- Hsieh, H.-F., & Shannon, S.E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research, 15*(9), 1277-1288.
- Hilton, A & Skrutkowski, M. (2002). Translating instruments into other languages: Development and testing processes. *Cancer Nursing: Vol 25 - Issue 1 - pp 1-7* Articles.
- Kelly, K., Clark, B., Brown, V. & Sitzia, J. (2003). *Good practice in the conduct and reporting of survey research*. *International Journal for Quality Health Care, 15*, 261-266.
- Krueger, R. A. A. (2009). *Focus Groups A Practical Guide for Applied Research Fourth Edition*: USA: Sage Publications.
- Kuh, G.D., Kinzie, J., Cruce, T., Shoup, R., & Gonyea, R.M. (2006). *Connecting the dots: Multi-faceted analyses of the relationship between student engagement results from the NSSE, and the institutional practices and conditions that foster student success: Final report prepared for Lumina Foundation for Education*. Bloomington, IN: Indiana University, Center for Postsecondary Research.
- Kulis, S., Nieri, T., Yabiku, S., Stronwall, L., & Marsiglia, F. (2007). *Promoting reduced and discontinued substance use among adolescent substance users: Effectiveness of a universal prevention program*. *Prevention Science, 8*, 35-49.
- Lambert, C., Jomeen, J., & McSherry, W. (2010). Reflexivity: A review of the literature in the context of midwifery research. *British Journal of Midwifery, 18*(5), 321-326.

Lessler J. & Forsythe B. (1996) A coding system for appraising questionnaires. In *Answering Questions: Methodology for Determining Cognitive and Communicative Processes in Survey Research* (Schwarz N. & Sudman S. eds), Jossey-Bass, San Francisco, pp. 259–292.

Lewis-Beck, M.S., Bryman, A. & Liao, T.M. (2004). *The sage encyclopaedia of social science research methods. Volume 3*. USA: Sage Publications.

Mudavanhu, N. (2003). An exploratory study on the reasons for substance abuse among the youth in Grabouw, Western Cape Province, South Africa. (Master's Thesis). Bellville: The University of the Western Cape, Faculty of Department of Social Work.

Macquet, R. J. (2015). Exploring substance use among South African adults and young offenders. National Institute for Crime Prevention and the Reintegration of Offenders (NICRO).

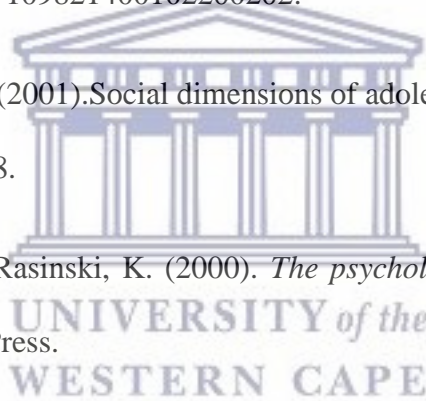


Messick, S. (1989b). Validity. In R. L. Linn (Ed.), *Educational measurement* (3rd ed., pp. 13-103). New York: Macmillan.

Morojele, N., Myers, B., Townsend, L., Lombard, C., Plüddemann, A., Carney, T., Petersen Williams, P., Padayachee, T., Nel, E. & Nkosi, S. (2013). *Survey on Substance Use, Risk Behaviour and Mental Health among Grade 8-10 Learners in Western Cape Provincial Schools, 2011*. Cape Town: South African Medical Research Council.

Oksenberg L; Cannell CF & Kalton G (1991). New strategies for pretesting survey questions. *Journal of Official Statistics*, 7 (3), 349-365.

- Ouimet, J.A., Bunnage, J.B., Carini, R.M., Kuh, G.D., & Kennedy, J. (2004). Using focus groups to establish the validity and reliability of a college student survey. *Research in Higher Education*, 45, 233-50.
- Payne, S.L. (1951). *The art of asking questions*. Princeton. Princeton University Press.
- Presser, S. & Blair, J. (1994) "Survey pre-testing: Do different methods produce different results?" In Marsden, P.V. (Ed.) *Sociological Methodology*, 24, pp73-104. Oxford: Blackwell.
- Schwarz, N. & Oyserman, D. (2001). Asking questions about behaviour: Cognition, communication, and questionnaire construction. *American Journal of Evaluation*, 22, 127-160. doi: 10.1177/109821400102200202.
- Sutherland, I., & Shepherd, J. (2001). Social dimensions of adolescent substance use. *Addiction*, 96, 445–458.
- Tourangeau, R., Rips, L., & Rasinski, K. (2000). *The psychology of survey response*. New York: Cambridge University Press.
- Weisberg, H. F. (2005). *The total survey error approach: A guide to the new science of survey research*. Chicago: The University of Chicago Press.
- Willis, G (1994). *Cognitive Interviewing and Questionnaire Design: A Training Manual*, Cognitive Methods Staff Working Paper Series, No. 7, Hyattsville, MD: U.S. National Center for Health Statistics, Office of Research and Methodology.
- Willis, G.B., Schechter, S. & Whitaker, K. (1999) "A comparison of cognitive interviewing, expert review and behaviour coding: What do they tell us?" Proceedings of the Section on Survey Research Methods, American Statistical Association. Washington D.C.: American Statistical Association. pp28-37.



Willig, C. 2009. *Introducing qualitative research in psychology*. UK: Library of Congress.

Zhang, Y & Wildemuth, B. M. (2009). Qualitative analysis of content. In B. Wildemuth (Ed.), *Application of Social Research Methods to Questions in Information and Library Science* (p.222-231). Westport, CT: Libraries Unlimited.



Appendix A

System levels	Scales	Number of items	Example of an item in the last 30 days
Individual	Self-identity	3	I felt certain about who I really am.
	Social identity	7	I was comfortable with the traditions that my community practiced.
	Citizenship	3	I felt out of things that others in my community were doing.
	Self-efficacy	8	I was in control of all my actions.
	Coping	7	I was capable of solving the problems that came up in my life.
	Effects of drugs	6	I considered using drugs to improve my functioning.
	Religiosity	5	I was active in my faith or church.
Micro-system's level	Family functioning	8	Everyone in my family understood the family rules.
	Parental monitoring	8	My parent(s)/guardian(s) usually knew where I was and what I was doing.
	Communication and social support	6	My family could talk to each other about how we feel.
	Economic pressure in family	8	My family had enough money to pay bills.
	Peer support	5	My friends were good listeners.
	Peer influences	5	I have changed my mind about something because of how my friends responded to it.
	School as a support	6	I had teachers who I could talk to.
	School as a stressor	6	Children at school made fun of me.
	Neighbourhood	9	I found facilities that are available to me after school very useful.
Meso-system's level	Mixed messages	9	The people in my community sent the wrong message to young people by selling drugs.
Macro-system's level	Tolerance for soft drugs	8	It bothered me that it was common to see people in my community drinking alcohol in public.
	Economic pressure in the community	4	I felt that serious attention was given to uplifting my community.
Exo-system's level	Social systems	4	I felt that the unemployment rate in my community would improve.
Chrono-system's level	Historical context	6	I felt that drugs are more common in poorer communities due to poverty.
	Hope for the future	9	I felt that I am going to be able to get out of my circumstances.

Appendix B



UNIVERSITY OF THE WESTERN CAPE

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E-mail: 3223368@myuwc.ac.za

ASSENT FORM

Title of Research Project: *Pretesting the revised version of the South African Substance Use Contextual Risk Instrument*

The study has been described to me in language that I understand. My questions about the study have been answered. I understand what my participation will involve and I agree to participate of my own choice and free will. I understand that my identity will not be disclosed to anyone. I understand that I may withdraw from the study at any time without giving a reason and without fear of negative consequences or loss of benefits.

Participant's name.....

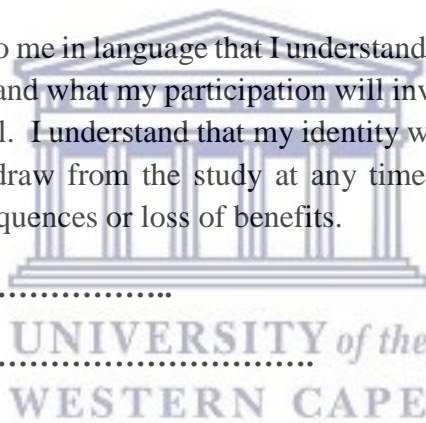
Participant's signature.....

Date.....

Witness' name:.....

Witness' signature:

Date:



Appendix C



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CONSENT FORM

Title of Research Project: *Pretesting the revised version of the South African Substance Use Contextual Risk Instrument*

The study has been described to me in language that I understand. My questions about the study have been answered. I understand what my participation will involve and I agree to participate of my own choice and free will. I understand that my identity will not be disclosed to anyone. I understand that I may withdraw from the study at any time without giving a reason and without fear of negative consequences or loss of benefits.

Participant's/Child's name.....

Parent/Guardian signature.....

Date.....

Witness' name:.....

Witness' signature:

Date:

Appendix D



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FOCUS GROUP CONFIDENTIALITY BINDING FORM

Title of Research Project: *Pretesting the revised version of the South African Substance Use Contextual Risk Instrument*

The study has been described to me in language that I understand. My questions about the study have been answered. I understand what my participation will involve and I agree to participate of my own choice and free will. I understand that my identity will not be disclosed to anyone by the researchers. I understand that I may withdraw from the study at any time without giving a reason and without fear of negative consequences or loss of benefits. I understand that confidentiality is dependent on participants' in the Focus Group maintaining confidentiality. I hereby agree to uphold the confidentiality of the discussions in the focus group by not disclosing the identity of other participants or any aspects of their contributions to members outside of the group.

Participant's name.....

Participant's signature.....

Date.....

Appendix E



UNIVERSITY OF THE WESTERN CAPE

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E-mail: 3223368@myuwc.ac.za

Information Sheet- Parents

Project Title: *Pretesting the revised version of the South African Substance Use Contextual Risk Instrument*

What is this study about?

This is a research project being conducted by Shadley Hendricks, M.A Research psychology student at the University of the Western Cape. We are inviting you to participate in this research project because you fit the criteria for the study. The purpose of this research project is to revise the questions on the questionnaire. This study will contribute to a better understanding with substance in the Western Cape, and may lead to better programmes being implemented.

What will your child be asked to do if he/she agree to participate?

Your child will be asked to participate in a focus group. They will then be required to talk about the instrument, for example "Do you feel the language of the item/question is appropriate". The focus group will be taken at their school. Participation will be the duration of 30-45minutes.

Would my child's participation in this study be kept confidential?

The researchers undertake to protect your child's identity and the nature of their contribution. To ensure your child's anonymity, the data collected will be protected and not distributed. The data collected will not contain information that may personally identify your child.

To ensure your child's confidentiality, of the data, it will be locked away in filing cabinets and not available to just anyone. Electronic data on computers will be password protected.

If we write a report or article about this research project, your identity will be protected.

This study will use focus groups therefore the extent to which your identity will remain confidential is dependent on participants' in the Focus Group maintaining confidentiality.

What are the risks of this research?

There are no known risks related with participating in this research. The researchers are not doing research on your child as a person or to affect him/her in any manner.

We will nevertheless minimise any potential risk and act promptly to assist your child if he/she experience's any discomfort during the process of your participation in this study. Where necessary, an appropriate referral will be made to a suitable professional for further assistance or intervention.

What are the benefits of this research?

This research is not designed to help you personally, but the results may help the investigator learn more about the relationship between adolescence substance use and the different contextual factors. We hope that, in the future, other people might benefit from this study.

Does my 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. They may choose not to take part at all. If he/she decides to participate in this research, they may stop participating at any time. They will not be penalized or lose any benefits to which they otherwise qualify.

What if I have questions?

This research is being conducted by **Shadley Hendricks** (3223368@myuwc.ac.za) at the University of the Western Cape. If you have any questions about the research study itself, please contact **Shadley Hendricks** at 084 829 4515. Should you have any questions regarding this research and your child's rights as a research participant or if you wish to report any problems you have experienced related to the research, please contact: Dr Maria Florence at The Department of Psychology, University of the Western Cape, Private Bag X17, Bellville 7535, (021959-2283/24533) mflorence@uwc.ac.za

Should you have any questions regarding this study or if you wish to report any problems you have experienced related to the study, please contact:

Head of Department:
Dr. Michelle Andipatin
Department of psychology
mandipatin@myuwc.ac.za

Prof José Frantz
Dean of the Faculty of Community and Health Sciences
University of the Western Cape
chs-deansoffice@uwc.ac.za

Appendix F



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E-mail:3223368@myuwc.ac.za

Information Sheet- Learners

Project Title: *Pretesting the revised version of the South African Substance Use Contextual Risk Instrument*

What is this study about?

This is a research project being conducted by Shadley Hendricks, M.A Research Psychology student at the University of the Western Cape. We are inviting you to be involved in this research project because you fit the criteria for the study. The purpose of this research project is to review questions on the questionnaire. This study will contribute to a better understanding with drug and alcohol use in the Western Cape, and may lead to better programmes being implemented.

What will I be asked to do if I agree to participate?

You will be asked to participate in a focus group. You then will be required to talk about the questionnaire around the specific questions. The focus group will be taken at your school. Participation will be the duration of 30-45minutes.

Would my participation in this study be kept confidential?

The researchers will protect your identity and the nature of your contribution. To ensure your identity, the data collected will be protected and not distributed. The information you provide will not have your personal details, so that you may not be identified.

To ensure your privacy, of the data, it will be locked away in filing cabinets and not available to just anyone. Electronic data on computers will be password protected. If we write a report or article about this research project, your identity will be protected.

This study will use focus groups therefore the extent to which your identity will remain confidential is dependent on participants' in the Focus Group maintaining confidentiality.

What are the risks of this research?

There are no known risks related with participating in this research study. The researchers are not doing research on you as a person or to affect you in any way.

We will nevertheless reduce any potential risk and help you if you experience any form of discomfort during the process of your participation in this study. Where necessary, an appropriate referral will be made to a suitable professional for further assistance or intervention.

What are the benefits of this research?

This research is not designed to help you personally, but the results may help the investigator learn more about the relationship between adolescence substance use and the different contextual factors. We hope that, in the future, other people might benefit from this study.

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, you will not be penalized or lose any benefits to which you otherwise qualify.

What if I have questions?

This research is being conducted by *Shadley Hendricks* (3223368@myuwc.ac.za) at the University of the Western Cape. If you have any questions about the research study itself, please contact Shadley Hendricks at 074 779 4591 or Dr Maria Florence at The Department of Psychology, University of the Western Cape, Private Bag X17, Bellville 7535, (021959-2283/24533) mflorence@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 Department:
Dr. Michelle Andipatin
Department of psychology
mandipatin@myuwc.ac.za

Prof José Frantz
Dean of the Faculty of Community and Health Sciences
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Appendix G



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13 March 2016

TO WHOM IT MAY CONCERN

RE: Permission to conduct study

I hereby grant permission to Shadley Hendricks (student number 3223368) to do secondary data analysis on data collected for a project title “Adolescent substance abuse: The development and validation of a measure of perceived individual and contextual factors” – registration number 10/8/14. The study by Mr Hendricks is titled “Pretesting the revised version of the South African Substance Use Contextual Risk Instrument” and forms part of the validation of an instrument to measure the factors associated with adolescent substance use in low socio-economic status communities. The analysis to be conducted by Mr Hendricks is based on a recommendation from the larger study and is a continuation of the process of validating the instrument. In addition, Mr Hendricks will be required to proceed with data collection for his study.

Yours sincerely



M.A. Florence

mflorence@uwc.ac.za

Appendix H

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(For official use only)

FACTORS ASSOCIATED WITH DRUG USE

1. This questionnaire will be used to find out what factors could lead to alcohol and drug use in your community.
2. Your answers are important for this study whether you use alcohol and/or drugs or not.
3. It should take around 40-50 minutes to complete this questionnaire.
4. There are **NO RIGHT OR WRONG ANSWERS**.
5. Choose the option that fits your answer best and tick (✓) it in the blocks provided.
6. You don't have to write your name on the questionnaire or show your answers to anybody.
7. Nobody who knows you will look at your answers once you have finished it.
8. You are free to withdraw from the study at anytime, during the process.
9. Please read every question carefully and answer the questions honestly.
10. Some questions will sound the same – please answer them anyway.

Your cooperation with the completion of this questionnaire is highly appreciated.

To answer the rest of the questions, **think about the past 30 days**, then use the following key to **tick (✓) the option** that matches your answer:

Always	Often	Seldom	Never	Not applicable (N/A)
(100% of the time)	(More than 50% of the time)	(Up to 50% of the time)	(0% of the time)	Not relevant for you <small>(only for questions 37-41, 103 & 104)</small>

School as a support In the last 30 days		Always <small>(100% of the time)</small>	Often <small>(More than 50% of the time)</small>	Seldom <small>(Up to 50% of the time)</small>	Never <small>(0% of the time)</small>	
87	My teachers supported me.					DT
88	I had teachers who I could talk to.					DU
89	My friends at school supported me.					DV
90	I enjoyed being at school.					DW
91	I felt school is useful because I learnt a lot.					DX
92	I was better understood at school than at home and/or in my community.					DY

School as a stressor In the last 30 days		Always <small>(100% of the time)</small>	Often <small>(More than 50% of the time)</small>	Seldom <small>(Up to 50% of the time)</small>	Never <small>(0% of the time)</small>	
90	I did not understand some of the work being taught at school.	4	3	2	1	
91	Children at school made fun of me.	4	3	2	1	
92	I felt under pressure to do well at school.	4	3	2	1	
93	I felt left out by other learners when at school.	4	3	2	1	
94	I felt that the teachers were not fair towards me.	4	3	2	1	
95	I felt bullied at school.	4	3	2	1	

Tolerance of soft drugs In the last 30 days		Always <small>(100% of the time)</small>	Often <small>(More than 50% of the time)</small>	Seldom <small>(Up to 50% of the time)</small>	Never <small>(0% of the time)</small>	
116	I felt it wasn't right for the people in my community to talk about alcohol abuse as if it is a normal and everyday thing.	1	2	3	4	
117	I felt that it wasn't right for the people in my community to talk about dagga use as if it is a normal and everyday thing.	1	2	3	4	
118	I felt that it wasn't right for the people in my community to talk about " hookah pyp " as if it is a normal and everyday thing.	1	2	3	4	

119	I felt that people in my community think that some drugs are more acceptable than others (e.g. dagga is okay, but not "tik").					
120	A party in my community usually included alcohol/dagga/"hookah pyp".					
121	Most people in my community looked forward to the weekend because that is when they were most likely to use alcohol/dagga/"hookah pyp".					

Hopelessness Individual In the last 30 days		Always (100% of the time)	Often (More than 50% of the time)	Seldom (Up to 50% of the time)	Never (0% of the time)	
129	I felt that people in my community who are addicted to drugs could not help becoming addicted.	1	2	3	4	
130	I felt that it's no use to think about the future.	1	2	3	4	
131	I felt that I am too young to think about the future.	1	2	3	4	
132	I felt that I might as well give up because there's nothing I can do to make things better.					
133	I felt that I would end up like the adults in my community when I grow up.					
134	It seemed unlikely that I would get any real satisfaction in the future.					
135	The future seemed vague and uncertain to me.					
136	It was clear to me that my past experiences have not prepared me well for my future.					
137	It was clear to me that, no matter what I do, I would always struggle to succeed.					
138	I thought that I am too poor to ever make a success of my life.					
139	It bothered me that my education was not sufficient to get me where I need to be.					

Hopelessness Community In the last 30 days		Always (100% of the time)	Often (More than 50% of the time)	Seldom (Up to 50% of the time)	Never (0% of the time)	
140	I felt that drugs are more common in poorer communities due to poverty.					FN
141	When people tried to do good things for others in my community, other people "brought them down".					FP
142	I felt that even if circumstances in my community change a bit, it will not last.					FQ
143	I felt that people in my community who are addicted to drugs won't put in the effort to help themselves.					FS

144	Nobody showed an interest in bettering our community.					
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Appendix I

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A (Slegs vir amptelike gebruik)

FAKTORE WAT MET DWELMGEBRUIK GEASSOSIEER WORD

1. Hierdie vraelys sal gebruik word om uit te vind watter faktore in jou gemeenskap aanleiding kan gee tot alkohol en dwelmgebruik.
2. Jou antwoorde is belangrik vir hierdie studie, of jy nou alkohol en/of dwelms gebruik, of nie.
3. Dit behoort ongeveer 40-50 minute te neem om die vraelys te voltooi.
4. Daar is GEEN REGTE OF VERKEERDE ANTWOORDE NIE.
5. Kies die opsie wat jou antwoord die beste pas en merk (√) in die ooreenstemmende blokkie.
6. Jy hoef nie jou naam op die vraelys te skryf of jou antwoorde aan enige iemand te wys nie.
7. Wanneer jy klaar alles ingevul het, sal niemand wat jou ken, toegelaat word om jou antwoorde te sien nie.
8. Jy word toegelaat om enige tyd van die studie te onttrek, ook terwyl ons besig is daarmee.
9. Lees asb die vrae noukeurig deur en antwoord so eerlik as moontlik.
10. Party vrae mag soos ander vrae klink – antwoord hulle asb in elk geval

Jou samewerking met die vraelys word baie waardeer.

Om die res van die vrae te antwoord, **dink oor die afgelope 30 dae na** en gebruik dan die volgende riglyn om die opsie **wat jou antwoord die beste pas (√) te merk:**

Altyd	Dikwels	Selde	Nooit	Nie van toepassing (Nvt)
(100% van die tyd)	(Meer as 50% van die tyd)	(Tot 50% van die tyd)	(0% van die tyd)	Nie op jou van toepassing nie

	Skool as ondersteuning Oor die afgelope 30 dae	Altyd (100% van die tyd)	Dikwels (Meer as 50% van die tyd)	Selde (Tot 50% van die tyd)	Nooit (0% van die tyd)
83	Het my onderwysers my ondersteun.				
84	Het ek onderwysers gehad met wie ek kon praat.				
85	Het ek dit geniet om by die skool te wees.				
86	Het ek gevoel dat skool nuttig is omdat ek baie daar leer.				
87	Het ek gevoel dat ek beter by die skool verstaan word as by die huis en/of in my gemeenskap.				
88	Het ek gevoel dat die fasiliteite wat vir my na skoolure beskikbaar is, baie nuttig is.				
89	Het ek veilig gevoel by die skool.				

	Skool as stressor Oor die afgelope 30 dae	Altyd (100% van die tyd)	Dikwels (Meer as 50% van die tyd)	Selde (Tot 50% van die tyd)	Nooit (0% van die tyd)
90	Het ek van die skoolwerk nie verstaan nie.				
91	Het kinders by die skool my gespot.				
92	Het ek gevoel dat ek te veel gedruk word om goed te doen in my skoolwerk.				
93	Het ek gevoel dat die ander kinders by die skool my uitsluit.				
94	Het ek gevoel dat die onderwysers nie regverdig opgetreë het teenoor my nie.				
95	Het ek gevoel dat ek by die skool geboelie word.				

	Verdraagsaamheid (tolerance) teenoor “soft drugs” Oor die afgelope 30 dae	Altyd (100% van die tyd)	Dikwels (Meer as 50% van die tyd)	Selde (Tot 50% van die tyd)	Nooit (0% van die tyd)

116	Het ek gevoel dat dit nie reg is dat mense in my gemeenskap oor alkoholmisbruik praat asof dit iets alledaags en normaal is.					
117	Het ek gevoel dat dit nie reg is dat mense in my gemeenskap oor die gebruik van dagga praat asof dit iets alledaags en normaal is.					
118	Het ek gevoel dat dit nie reg is vir mense in my gemeenskap om van die “hookah pyp” te praat asof dit ‘n normale en alledaagse ding is nie.					
119	Het ek gevoel dat mense in my gemeenskap dink dat sommige dwelms meer aanvaarbaar is as ander (bv dagga is okay maar nie ‘tik’ nie).					
120	Was daar by ‘n partytjie in my gemeenskap gewoonlik ook alkohol/dagga/“hookah pyp”.					
121	Het meeste mense in my gemeenskap uitgesien na naweke omdat hulle meestal naweke geneig is om alkohol/dagga/“hookah pyp” te gebruik.					

Individuele Wanhoop Oor die afgelope 30 dae		Altyd (100% van die tyd)	Dikwels (Meer as 50% van die tyd)	Selde (Tot 50% van die tyd)	Nooit (0% van die tyd)
129	Het ek gevoel dat mense in my gemeenskap wat aan dwelms verslaaf is, dit nie kon help om verslaaf te raak nie.				
130	Het ek gevoel dat dit nie help om aan die toekoms te dink nie.				
131	Het ek gevoel dat ek te jonk is om aan die toekoms te dink.				
132	Het ek gevoel dat ek net sowel kan opgee, omdat daar in elk geval niks is wat ek kan doen om dinge beter te maak nie.				
133	Het ek gevoel dat ek gaan opeindig soos die grootmense in my gemeenskap.				
134	Het dit gelyk of dit onwaarskynlik is dat ek enige vreugde in die toekoms gaan put.				
135	Het die toekoms vir my vaag en onseker gelyk.				
136	Was dit duidelik dat gebeurtenisse in my verlede my nie goed voorberei het vir my toekoms nie.				
137	Was dit vir my duidelik dat ek altyd sou sukkel om sukses te behaal, maak nie saak wat ek doen nie.				
138	Het ek gedink dat ek te arm is om ooit ‘n sukses te maak van my lewe.				
139	Het dit my gepla dat my skool- en onderwysers opleiding nie voldoende is om my te kry waar ek moet kom nie.				

Wanhoop oor gemeenskap Oor die afgelope 30 dae		Altyd (100% van die tyd)	Dikwels (Meer as 50% van die tyd)	Selde (Tot 50% van die tyd)	Nooit (0% van die tyd)
140	Het ek gevoel dat dwelmmisbruik meer voorkom in arm gemeenskappe as gevolg van armoede.				

141	Het sommige mense in my gemeenskap, die mense wat probeer om goed te doen vir ander in die gemeenskap, afgekraak.					
142	Het ek gevoel dat selfs as omstandighede in my gemeenskap bietjie verbeter, dit nie lank sal voortduur nie.					
143	Het ek gevoel dat mense in my gemeenskap wat aan dwelms verslaaf is, geen moeite doen om hulleself te help nie.					
144	Het niemand belangstelling in die verbetering van ons gemeenskap geopenbaar nie.					



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Appendix J



UNIVERSITEIT VAN WES-KAAPLAND

Privaatsak X17, Bellville 7535

Tel: 021-959 2283; Faks: 021-959 3515

E-POS: 3223368@myuwc.ac.za

Titel van navorsingsprojek: Pretesting the revised version of the South African Substance Use Contextual Risk Instrument.

Waaroor gaan die studie?

Hierdie navorsingsprojek staan onder leiding van Shadley Hendricks van die Sielkunde Departement by die Universiteit van Wes-Kaapland. Die projek was goedgekeur deur die Senaat se Navorsings- en Etiese Komitee by die Universiteit van Wes-Kaapland. Die doel van hierdie navorsingsprojek is om die vrae oor die vraelys te hersien.

Hierdie navorsing sal bydra tot 'n beter begrip van dié problem in die Wes-Kaap en kan dus bydra tot die implimentering van beter voorkomings- en behandelingsprogramme.

Wat word verlang van die kind indien hy/sy instem om deel te neem?

Dit word van u kind verlang om die vrae in die vraelys te beantwoord. 'n Voorbeeld van die tipe vraag wat gevra sal word is, "Voel jy die taal van die item / vraag is toepaslik?". Die vraelys sal aan u kind oorhandig word deur opgeleide navorsingsassistent gedurende die klastyd (toestemming is vooraf van die onderwysers en skoolprinsipaal bekom). Daar sal dus tyd wees om die vraelys gedurende klastyd te voltooi en dan ook in te handig. Deelname aan die navorsing is nie 'n vereiste van die klas wat hy/sy sal bywoon nie en hy/sy sal nie ekstra punte ontvang vir die voltooiing van die vraelys nie.

Sal my kind se deelname aan hierdie studie vertroulik hanteer word?

Ons verseker u dat u kind se persoonlike inligting vertroulik hanteer sal word. Ons verlang inligting soos ouderdom en geslag, maar u kind se naam sal nie verskyn op die vraelys nie. Die navorsers sal die enigste mense wees met toegang tot die inligting. Indien ons 'n artikel of verslag skryf wat gegrond is op hierdie navorsing, sal u kind se identiteit, asook die naam van die skool en gemeenskap, beskerm word.

Wat is die risikos van die navorsing?

Daar word geen risikos geassosieer aan u kind se deelname aan hierdie navorsingsprojek nie. Ons doen nie navorsing wat u kind op enige manier sal affekteer nie. Dit word slegs van u kind verlang om 'n vraelys te voltooi wat sal bydra tot die insameling van inligting met betrekking tot die gebruik van dwelmmiddels in die algemeen. Op hierdie stadium is ons net geïnteresseerd in die ontwikkeling van

die vraelys en die inligting word versamel om seker te maak dat die vraelys 'n geldige vraelys is.

Moet my kind deel neem aan dié navorsing en kan hy/sy enigetyd onttrek?

Indien u kind besluit om deel te neem aan hierdie navorsing, kan hy/sy enigetyd onttrek. Indien u kind besluit om nie deel te neem aan hierdie navorsingsprojek nie (of u gee nie toestemming vir u kind se deelname nie) of sy/haar deelname onttrek, sal daar geen nagevolge wees nie.

Is daar enige hulp beskikbaar indien my kind negatief geraak word as gevolg van sy/haar deelname aan hierdie studie?

Indien u kind negatief geaffekteer word deur hierdie navorsing, kan u gerus vir Maria Florence kontak. Sy sal dus haar bes probeer om u of u kind te verwys, sodat u of u kind die nodige hulp en ondersteuning kan kry.

Wat as ek vrae het?

Indien u enige vrae het met betrekking tot die studie, kontak gerus vir **Shadley Hendricks** 3223368@myuwc.ac.za. Indien u enige vrae het in verband met u regte as 'n deelnemer in die studie asook die rapportering van probleme wat u ondervind het, kontak gerus: Die Hoof van die Sielkunde Departement: **Dr. Maria Florence(021 959 2283)** mflorence@uwc.ac.za OF Die Dekaan van die Fakulteit van Gemeenskaps en Gesondheids Wetenskappe: chs-deansoffice@uwc.ac.za



Appendix K



UNIVERSITEIT VAN WES-KAAPLAND

Privaatsak X17, Bellville 7535

Tel: 021-959 2283, Faks: 021-959 3515

Titel van navorsingsprojek: Pretesting the revised version of the South African Substance Use Contextual Risk Instrument..

Die studie is aan my verduidelik in 'n taal wat ek verstaan. Ek gee hiermee vrywillig en sonder dwang toestemming dat my kind mag deelneem. My vrae oor die studie is beantwoord. Ek verstaan dat my kind se identiteit nie bekend gemaak sal word nie en dat my kind kan onttrek van die studie sonder om 'n rede te verskaf en sonder dat dit hom/haar sal benadeel.

Deelneme/kind se naam:.....

Ouer/voog se handtekening:.....

Datum:

Getuie se naam:.....

Getuie se handtekening:.....

Datum:

☺ *BAIE DANKIE VIR U BYDRAE TOT HIERDIE NAVORSING*

Appendix L

Interview Schedule

Identity

“I used drugs and/or alcohol available in my community to help me cope with my problems”

- 1) Do the items/questions feel relevant to you, explain why it is or is not relevant?
- 2) Is the language used difficult to understand, if so motivate what changes could be made in the terminology that was used.

3) Do you feel that the items/questions were phrased appropriately?

Self-efficacy

“I was able to access support from people in my life to help me solve problems”

4) Do the items/questions feel relevant to you, explain why it is or is not relevant?

4.1) Can you infer what is meant by “support”, if so explain?

5) Is the language used difficult to understand, if so motivate what changes could be made in the terminology that was used.

6) Do you feel that the items/questions were phrased appropriately?

Individual hope

“It was clear to me that, no matter what I do, I would always struggle to succeed”

7) Do the items/questions feel relevant to you, explain why it is or is not relevant?

8) Is the language used difficult to understand, if so motivate what changes could be made in the terminology that was used.

9) Do you feel that the items/questions were phrased appropriately?

“I thought that I am too poor to ever make a success of my life”

10) Do the items/questions feel relevant to you, explain why it is or is not relevant?

11) Is the language used difficult to understand, if so motivate what changes could be made in the terminology that was used.

12) Do you feel that the items/questions were phrased appropriately?

“It bothered me that my education was not sufficient to get me where I need to be”

13) Do the items/questions feel relevant to you, explain why it is or is not relevant?

14) Is the language used difficult to understand, if so motivate what changes could be made in the terminology that was used.

14.1) should “sufficient” be replaced by a simpler word, if so what would you deem appropriate?

15) Do you feel that the items/questions were phrased appropriately?

15.1) Do you understand statement, if no what makes the statement unclear?

Hopelessness community

“I felt that drugs are more common in my community than in affluent communities”

16) Do the items/questions feel relevant to you, explain why it is or is not relevant?

17) Is the language used difficult to understand, if so motivate what changes could be made in the terminology that was used.

17.1) should the word “affluent” be replaced by a word simpler, if so what word would you deem appropriate?

18) Do you feel that the items/questions were phrased appropriately?

“When people tried to do good things for others in my community, other people brought them down”

19) Do the items/questions feel relevant to you, explain why it is or is not relevant?

20) Is the language used difficult to understand, if so motivate what changes could be made in the terminology that was used.

21) Do you feel that the items/questions were phrased appropriately?

“I felt that even if circumstances in my community changed a bit, it will not last”

22) Do the items/questions feel relevant to you, explain why it is or is not relevant?

23) Is the language used difficult to understand, if so motivate what changes could be made in the terminology that was used.

24) Do you feel that the items/questions were phrased appropriately?

“I felt that people in my community who are addicted to drugs won’t put in the effort to help themselves”

25) Do the items/questions feel relevant to you, explain why it is or is not relevant?

26) Is the language used difficult to understand, if so motivate what changes could be made in the terminology that was used.

27) Do you feel that the items/questions were phrased appropriately?

“Nobody showed an interest in bettering our community”

28) Do the items/questions feel relevant to you, explain why it is or is not relevant?

29) Is the language used difficult to understand, if so motivate what changes could be made in the terminology that was used.

30) Do you feel that the items/questions were phrased appropriately?