

Engaging adolescents as peer educators about the dangers of cannabis use: a participatory action research approach

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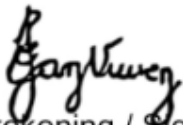
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DECLARATION

I the undersigned, hereby declare that the work contained in this dissertation / thesis is my own original work and that I have not previously in its entirety or in part submitted it at any university for a degree.



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**“MAG EK DAN NOOIT VERGEET NIE WAARVOOR EK WERK EN STRY. KENNIS WORD VERKRY DEUR
STUDIE, MAAR DIE WYSHEID GEE U VIR MY”**

HELEN STEINER RICE

All praise to God, my Heavenly Father, for being in control of my life and helping me to pursue my dreams.

ABSTRACT

Cannabis (dagga) has become one of the most used substances in South Africa, especially among adolescents. Although research has shown that life skills programmes are the most useful prevention methods, these programmes tend to be designed by adult experts who are out of touch with how adolescents think, feel and act in relation to topics such as cannabis use. More promising are methods that involve adolescents themselves in devising and disseminating prevention messages. This study enabled adolescents to educate their peers about the dangers of cannabis use through a participatory action research approach. It was informed by the social learning theory and located in a critical paradigm. I engaged 14 Grade 7 learners as participants to explore the following primary research question: How can a participatory action research approach enable adolescents to educate their peers about the dangers of cannabis use?

To address the primary research question, I formulated three secondary research questions:

- What perceptions and knowledge do adolescents have of the dangers of cannabis use?
- What strategies could adolescents develop to deliver prevention messages about the dangers of cannabis use to their peers?
- What guidelines can be developed to educate adolescents about the dangers of cannabis use in a contextualised way?

The study consisted of two cycles. Cycle One responded to the first secondary research question. The participating adolescents explored their knowledge and perceptions of the dangers of dagga use through a World Café discussion. Three themes emerged from the data. The participants knew that dagga could limit adolescents' dreams, as its use could be associated with potential negative academic and social consequences. Using dagga during adolescence could also harm their reproductive health. Moreover, the participants were aware that peer pressure, social pressure, previous cannabis use and the recent decriminalisation of dagga in South Africa could contribute to their peers' use of this substance. To address this phenomenon in their community, the participants decided to act as peer educators and to convey cannabis prevention messages to their peers. They used a logic model to design their prevention strategies.

Cycle Two addressed the second secondary research question. The participating adolescents used their knowledge gained from the first cycle to devise and implement appropriate, adolescent-friendly cannabis prevention messages. They presented their prevention messages to their Grade 5 peers by using art-based methods, as the life orientation outcomes in Grade 5 relate to substance abuse prevention. The participants also used the artefacts they had created to initiate discussions with their

parents. The research findings of this cycle revealed that this peer-led prevention approach had a possible influence on both the participating adolescents and their Grade 5 peers. Not only did it lead the participating adolescents to acquire cannabis-related knowledge but also developed their life skills. Moreover, the Grade 5 learners were empowered with knowledge about the dangers of cannabis use, which they claimed would help them make healthy decisions around the use thereof. Lastly, the adolescents' prevention messages increased their sense of agency, made them more empathic towards other adolescents who used cannabis and promoted discussion between the participants and their parents about the dangers associated with the use of dagga.

It is contended that the outcomes of the research project have made important methodological and theoretical contributions. The knowledge generated from this study could be used to inform drug education in schools, and the study could be replicated to address any social issue that might have an impact on the lives of the learners. Moreover, this study provided guidelines on how to use participatory action research and participatory methods in teaching and learning, which could increase learner engagement and promote holistic learning.

Keywords: Adolescents, cannabis, life skills, participatory action research, peer educators.

ACRONYMS

HIV	human immunodeficiency virus
THC	tetrahydrocannabinol
UNICEF	United Nations International Children's Fund

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CHAPTER ONE: OVERVIEW OF STUDY

1.1 INTRODUCTION

The research into drug use among adolescents – youngsters between the ages of 10 and 19 – has grown over the past few years (Peltzer & Phaswana-Mafuya, 2018:1). While many studies have focused on adolescents' use of illicit drugs, such as crack, heroin and club drugs (Humensky, 2010:20; Narvaez *et al.*, 2015:211; Swendsen *et al.*, 2012:390), the current study aimed to explore how adolescents perceived, thought about and related to the dangers of cannabis use. Frequent use of cannabis can cause several health risks and psychological effects among adolescents (Evans-Whipp *et al.*, 2015:994). The recent decriminalisation of cannabis use in South Africa in the Constitutional Court case of the Minister of Justice versus Prince (2018) may contribute to increased cannabis use, as adolescents may view this judgement as an indication that the drug is harmless and non-addictive.

Schools are an appropriate setting for programmes aimed at decreasing the prevalence of substances (Hodder *et al.*, 2011:1), including cannabis. A well-established understanding in South Africa of how adolescents perceive the dangers of cannabis use could make an important contribution to the development of prevention education resources (Parker & Anthony, 2018:361). Furthermore, youth-led action research could bring about transformative solutions to the problem's adolescents are facing (Bautista *et al.*, 2013:3; Cammarota & Fine, 2010:2; Hope *et al.*, 2014:83; Ozer & Wright, 2012:268). The present study, therefore, had the goal of providing a transformative educational solution to educate adolescents about the dangers of cannabis use through participatory action research.

This chapter outlines the research process followed to investigate how adolescents can engage in participatory action research to learn how to educate their peers about the dangers of cannabis use and how to make healthy choices about the use of such substances. An explanation of the background and rationale of this study is provided. The problem statement, focal research questions, purpose of the study and concept clarification follow. In addition, the theoretical framework, research design, data generation methods, measures to ensure trustworthiness and ethical considerations are briefly discussed. Lastly, the contribution of the study is described, and the research framework of the chapters used is delineated.

1.2 BACKGROUND AND RATIONALE

Cannabis is the most widely used drug worldwide (Barrett & Bradley, 2016:643), and South Africa is no exception (Peltzer & Phaswana-Mafuya, 2018:4). The use of this substance has been known for thousands of years (Pacula *et al.*, 2014:1021). In South Africa, it dates to the Khoikhoi's (an ethnic group) use of cannabis, then known as “dacha”, as an intoxicant when chewed or boiled (Chandra *et al.*, 2019:5). Therefore, in South Africa, the common name for cannabis is “dagga” (Minnaar, 2015:51).

South Africa is known to have high rates of cannabis use, especially among adolescents (Moodley *et al.*, 2012:2). Relatedly, Peltzer and Phaswana-Mafuya (2018:3) have found that the self-reported cannabis use among adolescents in Grade 8 to 11 is 4,5% (see Table 1.1). These results are higher than the results of Grade 0 to 7 learners (4,2%) and Grade 12 learners and young adults (3,8%).

Table 1.1: Drug use per grade in South Africa, 2018

Variables		Any drug use		Cannabis	Cocaine	Amphetamine	Inhalants	Sedatives	Hallucinogens	Opiates
	Total N (%)	Men (%)	Women (%)	Total (%)	Total (%)	Total (%)	Total (%)	Total (%)	Total (%)	Total (%)
Socio-demographics All	1092 (4,4)	7,9	1,3	4,0	0,3	0,3	0,2	0,4	0,1	0,3
Education										
Grade 0-7 (18,0%)	185 (4,6)	8,4	0,8	4,2	0,4	0,3	0,2	0,5	0,1	0,2
Grade 8-11 (41,8%)	451 (4,9)	8,9	1,2	4,5	0,3	0,3	0,2	0,2	0,1	0,4
Grade 12 or more (40,2%)	320 (4,1)	6,7	1,6	3,8	0,3	0,3	0,1	0,6	0,2	0,0

Of course, the actual figures may be much higher than those reported. Now that South Africa has joined 33 other countries that have decriminalised the consumption of cannabis for personal and private use (Visser, 2018:44), cannabis use and abuse may very well increase now that those over 18 may legally smoke or consume this substance. The patterns of use presented in Table 1.1 place adolescent users at a high risk of physical, academic, psychological and social consequences (D'Amico *et al.*, 2016:1833).

1.2.1 Dangers of cannabis use for adolescents

Adolescence is a period in which the immature body and developing brain appear to be vulnerable to the effects of cannabis (Fontes *et al.*, 2011:446; Hurd *et al.*, 2014:1), which is a psychoactive substance (Warf, 2014:414). Exposure to cannabis during adolescence could potentially be associated with a few detrimental behavioural consequences (Taylor *et al.*, 2017:769). After using cannabis, adolescents

may process information inefficiently, experience difficulties with decision making due to impulsivity and struggle to control behavioural responses (Solowij *et al.*, 2012:576). Some youngsters tend to engage in risky sexual behaviour after intoxication (Ross *et al.*, 2019:300). In addition, cannabis use may increase a desire for novel experiences (Malmberg *et al.*, 2010:481). Consequently, cannabis is seen as a gateway drug to other illicit and more addictive drugs, such as heroin and cocaine (Hurd *et al.*, 2014:4).

Cannabis use is known to cause cognitive impairments in adolescents (Thoma *et al.*, 2011:40), such as their verbal memory, attention and learning being affected (Jacobus & Tapert, 2014:2188). Moreover, cannabis use often causes adolescents to learn and recall fewer words and to forget words (Solowi *et al.*, 2011:139). This may have implications for learning, since verbal memory is needed in order to process and efficiently store information and use cognitive strategies (Tervo-Clemmens *et al.*, 2018:509). Furthermore, cannabis use by adolescents is also associated with a diminished attention span, and young users may experience difficulties with accuracy during educational tasks (Randolph *et al.*, 2013:136) for up to six hours after use (Wilkinson *et al.*, 2016:460). Research also explains that cannabis use is associated with absenteeism (Hill & Mrug, 2015:1518), poor academic achievement (Meier *et al.*, 2015:207) and even dropping out of school (Stiby *et al.*, 2015:662), as using cannabis causes lowered motivational levels among adolescents (Volkow *et al.*, 2016:292).

Globally, and in South Africa, there is a high association of adolescents' exposure to cannabis with mental illness (Paruk & Burns, 2016:20), since cannabis can trigger psychotic episodes (Saban *et al.*, 2014:1). After intoxication, adolescents may feel hopeless and experience negative thoughts (Malberg *et al.*, 2010:481), which emerge due to cannabis-related alterations in the neurotransmitter system (Rubino *et al.*, 2012:184). Furthermore, exposure to cannabis at a young age could also increase the adult's vulnerability to drug addiction (Mokrysz *et al.*, 2016:961), schizophrenia (Malone *et al.*, 2010:511), anxiety (Duperrouzel *et al.*, 2018:107) and mood disorders (Chadwick *et al.*, 2013:129).

As with educational consequences, the initiation of cannabis use among adolescents is often associated with social role functioning impairments (Hürlimann *et al.*, 2011:145). Social anxiety could emerge as youngsters may fear inappropriate cannabis-related behaviour during social situations and, as a result, avoid socialising with others (Nelemans *et al.*, 2016:483). They may also develop antisocial behaviour (Nelemans *et al.*, 2016:483). Arguments and dysfunctional interaction with family members and friends are common (Nonnemaker *et al.*, 2012:1340), possibly due to cannabis-related capriciousness and poor communication skills. Consequently, youngsters may spend free time with friends who use "heavier" illicit drugs, as they will feel more accepted in that social milieu (Mudavanhu

& Schenck, 2014:383). Although these physical, academic, psychological and social dangers of cannabis use among adolescents are known, the legalisation of this substance tends to influence the norms of cannabis use and abuse (Cerdá *et al.*, 2017:149).

1.2.2 Implications of the legalisation of cannabis for adolescents

Since cannabis use is now legal for those over 18, there are multiple implications for adolescent cannabis use (Hopfer, 2014:331). One effect is the increased likelihood of adolescent cannabis use due to the increased availability of this substance (Friese & Grube, 2013:34). In South Africa, cannabis is relatively cheap (Riley *et al.*, 2019:3), and it can easily be accessed in both rural and urban contexts (Peltzer *et al.*, 2010:2226). The availability of different forms of cannabis, often from peers or family members (Lipperman-Kreda & Grube, 2018:5), may also introduce new formulations of cannabis with higher potencies (Friese & Grube, 2013:34). For example, prescription or illegal drugs, such as mandrax or methylenedioxymethamphetamine (ecstasy), can be mixed with cannabis, with much more serious consequences and health risks (Peltzer *et al.*, 2010:2225; Schlienz & Lee, 2018:237).

Moreover, the legalisation of cannabis use may send a message of normalisation to adolescents (Sobesky & Gorgens, 2016:69). An increase in parental use of cannabis around children means that more young people may be exposed to adults who use cannabis (Kosterman *et al.*, 2016:450). Parents may allow underage cannabis use among adolescents (Kosterman *et al.*, 2016:457), as with alcohol. Legalisation could open the floodgates for the marketing of cannabis as a socially acceptable drug, resulting in increased rates of adolescents' use and abuse thereof (Ammerman *et al.*, 2015:776).

In addition, the legalisation of cannabis could provoke the false belief that this substance has no health risks among adolescents (Blevins *et al.*, 2018:3). Roditis and Halpern-Felsher (2015:181) provide evidence that some adolescents, often due to their cultural context (Hakkarainen *et al.*, 2015:344), perceive cannabis as a "safe drug" with far fewer dangers than conventional tobacco or alcohol. Cannabis is often viewed as an acceptable means of relaxation (Roditis & Halpern-Felsher, 2015:181) and can be used as a social lubricant. Thus, in order to reduce problems with regard to cannabis-related use among adolescents, intervention for prevention is needed in school settings (Moffat *et al.*, 2017:85).

1.2.3 Cannabis prevention strategies for adolescents in schools

Schools are in a favourable position to educate about cannabis use, and there is a wide range of cannabis-related strategies (Norberg *et al.*, 2013:11) available for prevention education. Examples of strategies developed for this purpose include educating parents about appropriate attitudes and

behaviour towards cannabis (Deb & Gupta, 2017:113). Although parental strategies provide benefits such as increased parental skills, strengthened family relationships and positive communication (Griffin & Botvin, 2010:520), schools may struggle to engage parents in such educational programmes. Parents often live in diverse geographic locations and have other demands on their time (Pettigrew *et al.*, 2018:352). Also, many South African parents are not always present, as drug abuse often emerges in school hostels.

Community social norm interventions and whole-school strategies have also been used to address adolescent cannabis use (McAlaney *et al.*, 2011:81). These approaches include mass media campaigns or motivational talks (Fletcher *et al.*, 2011:37) by enforcement agencies, such as the police. In short, mass media campaigns and motivational interviews deliver a message aimed to present notable high-status role models who reject substance use (Stockings *et al.*, 2016:289). However, such strategies are not always successful, as they fail to provide frequent and prolonged motivation (Das *et al.*, 2016:74).

Research provides evidence that school-based strategies (Faggiano *et al.*, 2010:56), especially life skills programmes, are the most effective in the prevention of substance abuse (Botvin & Griffin, 2014:62). In South Africa, drug use, including cannabis use, forms part of a holistic initiative with the intention of promoting health in learners (Department of Education, 2012:7). Personal competence skills, social competence skills and health-related knowledge of cannabis use are gained through life orientation programmes (Department of Education, 2012:8) as part of the national curriculum.

Life skills programmes appear to have more positive effects when delivered by peer educators with activities such as role play, group discussions and the peer leader's involvement (Flynn *et al.*, 2015:1047), as adolescents are perceived as "insiders" by their peers (Livingstone *et al.*, 2014:288). Educators may also struggle to comprehensively implement these programmes due to differences in comparison to learners regarding social status, cultural background and credibility (MacArthur *et al.*, 2016:404). Other educators may avoid sensitive topics because of adolescents' "never mind attitude" or negative verbal responses (Walton *et al.*, 2016:5). For this reason, a participatory action research approach was appropriate and necessary for this study, as adolescents themselves possess expert knowledge about how and what they would like to learn, being participants in the context and issue they are addressing (Camarota, 2017:197). A participatory action research approach also involves multiple levels of adolescent learning, namely social, emotional and cognitive (Rubin *et al.*, 2017:182).

1.3 PROBLEM STATEMENT

In this study, I proceeded from the viewpoint that adolescents possess expert knowledge about how young people perceive cannabis use. It was therefore important to explore adolescents' perceptions of cannabis use, with a view to changing them to protect the physical, academic, psychological and social wellbeing of these young people. Although there have been many prevention programmes aimed at reducing cannabis use among adolescents, school-based strategies, especially life skills programmes, are potentially the most useful in this regard. However, most of these cannabis-related life skills programmes are devised by adult experts, who may not possess the necessary knowledge of how young people think, feel and act in relation to cannabis use. The programmes and messages they develop therefore may not be successful in capturing the attention of the adolescents to whom they are directed.

As a teacher, I know that young people in this specific community are exposed to cannabis use, and I want to help them make informed decisions about its use, should they be tempted. We have had some cases of cannabis use at the school. However, I know that if I have merely lectured them on the dangers of cannabis use, it would not have much impact. Research has shown that if adolescents are involved in creating their own prevention strategies, these are more likely to be culturally and contextually appropriate for the adolescent audience they are targeting. Thus, I have worked with adolescents to explore their attitudes to and knowledge and perceptions of the use of cannabis to find out what they know about the dangers of using it, what messages they think young people should be given and how they believe these messages should be delivered. It is assumed that the outcomes of this project will enable the participants and their peers to make more informed decisions about cannabis use and provide guidelines for teachers on how to make their teaching about social issues more engaging for the learners.

1.4 RESEARCH QUESTIONS

In order to address the problem discussed above, the following research questions guided this study.

1.4.1 Primary research question

- How can a participatory action research approach enable adolescents to educate their peers about the dangers of cannabis use?

The following secondary research questions supported the primary research question.

1.4.2 Secondary research questions

- What perceptions and knowledge do adolescents have of the dangers of cannabis use?
- What strategies could adolescents develop to deliver prevention messages about the dangers of cannabis use to their peers?
- What guidelines can be developed to educate adolescents about the dangers of cannabis use in a contextualised way?

1.5 PURPOSE OF THE STUDY

This study engaged adolescents through participatory action research to educate them about cannabis use and to develop adolescent-appropriate prevention messages or programmes. To attain this aim, I worked collaboratively with adolescents:

- to investigate adolescents' perceptions and knowledge of the dangers of cannabis use;
- to assist adolescents to develop strategies to educate their peers about the dangers of cannabis use; and
- to develop guidelines from the findings of this study about how to inform prevention education about adolescent cannabis use in a contextualised way.

1.6 CLARIFICATION OF CONCEPTS

The concepts used in this study are explained in Table 1.2. The key concepts are adolescents, cannabis, life skills, participatory action research and peer education.

Table 1.2: Concept clarification

Adolescents	Youngsters, age 10 to 19 (Stats SA, 2018:16), who are vulnerable to environmental factors (Pokhrel <i>et al.</i> , 2013:218), such as substance use.
Cannabis	Greenish-brown dried flower inflorescences of the female <i>Cannabis sativa</i> plant (Punja, 2018:514) that are smoked (Mariani <i>et al.</i> , 2011:250), vaporised or consumed through edibles (Wilkinson <i>et al.</i> , 2016:454) to reach a pleasurable "high" feeling.
Life skills	Personal competence skills, social competence skills and health-related knowledge that are often gained through life orientation programmes (Department of Education, 2012:8).
Participatory action research	A research design that empowers those affected by the issue under investigation as cornerstone research partners, with a view to taking action to improve the issue, their circumstances or their ability to respond more positively (Rubin <i>et al.</i> , 2017:176).
Peer education	A health-related intervention strategy where learners of the same age, status and grade aim to modify the social norms and health behaviour of a specific target group (Department of Education, 2015:14).

1.7 THEORETICAL FRAMEWORK

A theoretical framework serves as the heart of a research project (Imenda, 2014:185). It supports the formulation of the research problem (Rocco & Plakhotnik, 2016:124) and provides a comprehensive understanding of the research findings (Osanloo & Grant, 2016:20). This study used the social learning theory of Albert Bandura as theoretical framework.

Many theories have been advanced to explain the behaviour of adolescents (Davis *et al.*, 2015:337), including adolescent cannabis use. Behavioural theories focus on how adolescents acquire behaviour by means of positive or negative reinforcement (Schunk, 2012:27) and how behaviour change is attained through specific behavioural training strategies. Cognitive learning theories focus on the role of adolescents' cognition, beliefs and values (Schunk, 2012:27) in order to understand adolescent substance use. The social learning theory bridges the behaviourist and cognitive learning approaches (Walsh, 2014:171). It emphasises that new behaviour is learnt through vicariously observing different role models in the social environment, followed by reproducing actions or from perceived consequences of direct experiences (Bandura, 1971:3). Self-efficacy is needed to reinforce these emotional experiences, since it helps adolescents to reflect upon actions based on received feedback (Bandura, 1997:79).

Although adolescents acquire behaviour from observation, imitation of role models is more likely when they are regarded as influential (Bandura, 1971:7). Media exposure, for example, plays a significant part in normalising cannabis use or making it seem attractive (Gommans *et al.*, 2015:175). Many parents tolerate underage adolescent cannabis use or use the substance themselves in front of adolescents who perceive them as role models (Siegel *et al.*, 2015:39). Peer pressure could entice adolescents to use cannabis or elevate the status of cannabis use among adolescents (Caouette & Ewing, 2017:95). In some communities, cannabis use is prevalent, and so adolescents grow up seeing it as normal (Leifheit *et al.*, 2015:781). Educators can become positive influencers of adolescents who use cannabis through life orientation programmes, but their lack of knowledge about the substance and contexts of the young people they teach may serve as a barrier to cannabis-related educational goals.

Bandura's (1971:3) social learning theory guided this study, as it explains the importance of role models in shaping new behaviour and providing positive feedback to reinforce actions. By working with adolescents to create positive peer pressure through education, this study provides informative feedback to adolescents on cannabis use in order to educate them about the use of this substance.

1.8 RESEARCH METHODOLOGY

Research methodology refers to the path used to conduct research (Gray, 2014:686). In the following section, I explain how the critical paradigm guided this participatory action research approach. The site of this study and the selection of the adolescent participants are discussed as well. These are followed by an explanation of the data generation strategies used, namely World Café, photovoice and recorded class discussions. Lastly, the selected method of data analysis is explained.

1.8.1 Research paradigm

A research paradigm is the lens or worldview that guides the researcher to explain the research reality (Gray, 2014:687). It supports a researcher in justifying decisions and actions in relation to ontology, epistemology and methodology (Kivunja & Kuyini, 2017:38). Ontology represents one's view of social reality (Mack, 2010:5), and epistemology is the philosophical underpinning about how one acquires valid knowledge (Scotland, 2012:9). Methodological assumptions provide an understanding of which holistic approach should be used to answer the research questions (Jackson, 2013:55).

This study was positioned within the critical theory as research paradigm. A critical research paradigm describes one's view of reality within a social and cultural context (Shah & Al-Bargi, 2013:260). It stresses the importance of interaction among the researcher and the participants to gain knowledge about their experiences of social influences (Dammak, 2015:8). A critical paradigm aims at increasing the self-awareness of the participants to foster change within their lives and situations (Asghar, 2013:3121). This paradigm was in line with the aims of this study to support adolescents to increase their awareness of the dangers of cannabis use and use this knowledge to create adolescent-friendly, age-appropriate prevention strategies to educate their peers.

1.8.2 Research design

A research design refers to the general "blueprint" or plan used for conducting research (Flick, 2018:128). It explains the purpose of the study, the role of the researcher and the process to be followed during the research (Astalin, 2013:118). It thus provides a plan to solve the research problem (Gray, 2014:690). The design used in this study was participatory action research (PAR).

Participatory action research is an approach that engages participants in identifying and conducting research on social issues (Rubin *et al.*, 2017:177). In this case, adolescents were involved as co-researchers with the aim of developing prevention strategies to educate their peers about the dangers of cannabis use. Traditionally, adolescents have had little involvement in research (Kim, 2016:38), but

aligned with an asset-based adolescent development approach, a participatory action research design builds on the knowledge, strengths and experiences of adolescents to understand issues that affect their lives directly (Zeller-Berkman *et al.*, 2015:25). This research process goes beyond merely giving adolescents a voice on real-world problems; it also provides opportunities for adolescents to form part of the research plan and to provide recommendations for change (Anyon *et al.*, 2018:11). Adolescents are authors in this approach, rather than research objects (Livingstone *et al.*, 2014:286). Moreover, through participatory action research, they learn important skills, such as teamwork, problem solving, decision making, communication, self-reflection (Gardner *et al.*, 2019:15) and critical thinking (Foster-Fishman *et al.*, 2010:68).

Community-based organisations, schools and diverse researchers have partnered with adolescents to understand and change social issues (Kornbluh *et al.*, 2015:871). In community settings, adolescents usually focus on issues in their community and act to better their communities (Wright & Mahiri, 2012:123). In school-based settings, a participatory action research approach allows educators and learners to focus on changing issues affecting the school environment (Ozer & Douglas, 2013:74). In order to support these goals, a participatory action research approach, as with any other action research, involves a cyclical research process (Kim, 2016:42). These cycles may engage adolescents in one or more of the stages of formulating the research problem, assessing the research problem, constructing an intervention, implementing the intervention and assessing the outcomes of the intervention (Langhout & Thomas, 2010:61).

A participatory action research approach thus seemed appropriate to guide the aims of this study, since it aimed to engage adolescents to research the dangers of cannabis use for young people and to use this information to devise adolescent-friendly prevention strategies within their school. Although I initially defined the research problem based on conversations with other teachers, my own observations of the prevalence of cannabis in my community and knowledge gained from a literature study, the adolescent participants gathered the data, analysed the data, developed prevention messages and decided on how to disseminate the prevention messages to their peers. The study consisted of two cycles of action and reflection.

In **Cycle One**, the adolescent participants explored their knowledge and experiences of the dangers of cannabis use among young people (Sub-question One) in order to identify the issues that might inform their own and their peers' cannabis-related decisions. They did this by using a World Café, as explained in Section 1.8.3.2.1. The participants analysed the data, and I helped them to formulate themes (e.g.

consequences of use, how to make healthy decisions etc.). Thereafter, they derived prevention messages from these themes.

Cycle Two focused on Sub-question Two. During this cycle, the participants decided how to deliver the prevention messages formulated in the first cycle, using photovoice. They took photographs with their mobile phones to represent their messages and wrote narratives to explain them. The photographs and narratives were displayed to Grade 5 learners, and they made a booklet to educate others on the dangers of cannabis use. The decision to present the prevention messages to the Grade 5 learners aligned with the outcomes of life orientation in Grade 5 that relate to the prevention of substance abuse (Department of Education, 2011a:11). The participating adolescents also deemed it necessary to share their learning experience with their parents. They decided to take the booklet home to discuss it with their family.

1.8.3 Research methods

1.8.3.1 Site of study and participant selection

This study was conducted in a suburban primary school in Swartklip, Limpopo Province, South Africa, where I was an educator. I taught 16 Grade 7 learners English as a second language. Although substance abuse and the prevention thereof are topics within the life orientation subject, all educators are tasked to integrate life skills and pertinent social issues into their teaching to make it contextually and culturally relevant (Department of Education, 2012:3). The socio-economic environment in which learners live may contribute to a higher risk of adolescent cannabis use, according to not only the literature but also my own experience as a teacher in this community. The community does not have any safe recreational and leisure activities other than a recreational club for adults. Consequently, the learners are left to wander around the streets in the afternoons, often with older peers, which could make them vulnerable to negative peer pressure in terms of drug or alcohol use. I know of learners as young as 10 years old who have been using cannabis. Therefore, I integrated this research project into my normal teaching.

All 16 learners took part in the activities described in Cycles One and Two of the project, but I asked each of them to consent to my using their verbal discussions and written or visual data for my study. I only used the data of those who had given consent and sought parental consent for those learners. Beforehand, I also provided the parents with a flyer explaining the theme that was integrated into the normal teaching (Appendix F).

The learners were fully informed, as were their parents, on what I used the data for and what the potential risks and benefits to them were. I made it clear that whether they gave consent or not, would not affect how I assessed their work, as the activities formed part of my normal teaching. In order not to influence them unduly, since I was a teacher, I asked a colleague to explain the project to the Grade 7 learners at a meeting during morning break (Appendix F). After explaining the purpose of the project and requirements and answering any questions they had, my colleague asked that anyone who would not like his or her classwork to be used to indicate this by marking “yes” or “no” and writing his or her name on a piece of paper she had given each of them. They put these papers in a box so that no one could see what they had indicated. Once the names of those who wanted their work to be used were known, the parents were contacted and requested to attend a meeting where they were informed about the project. Those who were willing to have their child’s work used for research purposes were asked to sign a consent form at home and put it in a sealed envelope provided by me (Appendix F).

1.8.3.2 Data generation strategies

Data generation includes systematic instruments, methods or techniques used to capture, search for and extract data about a phenomenon (Goldkuhl, 2019:572). The effectiveness of these instruments depends on the appropriateness and the utilisation process (Twining *et al.*, 2017:8). Data should be collected from various methods to enable triangulation of the data (Lub, 2015:6). I made use of a form of World Café (Verhage & Jacobs, 2016:184), photovoice (Lipponen *et al.*, 2016:944) and audio-recorded and transcribed class discussions as data collection methods to ensure triangulation.

1.8.3.2.1 World Café

The World Café is a simple and participatory way to generate data about a specific issue that can be modified to meet a variety of needs (Verhage & Jacobs, 2016:184). Specific questions are written on large sheets of paper and placed on different tables. Participants are allocated to one table, with a person designated as a host. A specific period is allocated to answering the questions through notes, drawings or whatever other method the participants select for recording their discussions. The host captures the discussion and remains at the table. After the designated time has elapsed, the rest of the participants move to the next table and repeat the process until all the participants have discussed all of the questions. The hosts summarise and present the discussions they have recorded for each question, and a plenary discussion is then held. In this study, the questions were as follows:

- What do you know about the effects of cannabis on young people – their mind, their body, their studies, their relationships, and so forth?
- What do you think influences young people to use cannabis?

- How do you think messages about the dangers of cannabis use and about making healthy decisions should be conveyed to young people?

The learners were given the opportunity to add other questions or motivate why they would change these questions.

1.8.3.2.2 Photovoice

In order to share and document observed experiences in participatory action research, adolescents have to make experiences concrete (Lipponen *et al.*, 2016:944). These materialisation processes could be done in a number of ways, such as taking photographs of experiences – also known as photovoice – producing participatory videos, drawings with written explanatory narratives and telling stories about what they perceive (D’Amico *et al.*, 2016:531). I selected photovoice as an appropriate method to elicit the data in this study, since it has been shown to make research participation an enjoyable experience (Vindrola-Padros *et al.*, 2016:637). The purpose of using photovoice was to enable the participants to disseminate the prevention messages they had derived from their findings in Cycle One.

I explained photovoice, its purpose and process, including how to take photographs in an ethically sensitive manner, to the participants. I also showed them examples of other photovoice projects to help them understand what kind of photographs to take. I gave them a prompt “Take photographs of images that illustrate the messages you wish to deliver about the dangers of cannabis use for young people”. Once they had printed out their photographs, using portable printers, they wrote accompanying narratives. I led a critical discussion of their photographs and narratives, following a specific process that will be explained in full in Chapter Three. The participants used these artefacts to create educational resources for peer education purposes. They worked as a group to decide how to use these resources as a way of educating their peers about the dangers of cannabis use.

1.8.3.2.3 Recorded class discussions

The process of participatory action research requires participants to engage in group discussions about the relevant issue and their ongoing findings with regard to it. As I used data generated from normal class activities, I made audio recordings of the class discussions when they presented their findings, analysed the data and explained their photographs to supplement my memory. In order to capture the discussions, I audio recorded the class discussions and transcribed these to provide supplemental data to the written data and visual artefacts.

1.8.2.3.3 Data analysis

A data analysis process consists of data-handling methods aimed at interpreting research findings (Flick, 2018:306). These interpretations supported me to make sense of the data in relation to the research questions (cf. Elliott, 2018:2851). I used thematic analysis on two levels. Firstly, the visual artefacts were analysed in the participant meeting by the group to draft with broad themes and linked prevention messages. Secondly, I analysed the visual and textual data theoretically through the lens of the social learning theory to draft guidelines in response to the third secondary question: “What guidelines can be developed to educate adolescents about the dangers of cannabis use in a contextualised way?”.

Thematic analysis takes place by means of classification and categorisation as starting point (Alhojailan, 2012:40; Clarke & Braun, 2013:121). After that, themes with notable patterns to address a research issue are identified (Maguire & Delahunt, 2017:3352). Various interpretations of the research questions are possible during thematic analysis, as these allow reflection on and clarification of the reality (Javadi & Zarea, 2016:34). I encouraged the learners to actively reflect on their learning in each stage of the process.

1.9 MEASURES TO ENSURE TRUSTWORTHINESS

Trustworthiness refers to the authenticity of the collected data (Nowell *et al.*, 2017:3). I used credibility, transferability, dependability and confirmability as recommended strategies of trustworthiness in the study. Credibility is the effectiveness of the findings to represent real-world conditions (Tracy, 2010:843). To maintain credibility in this study, I used investigator triangulation and participant reflexivity or reflection (cf. Anney, 2014:276). The purpose of these trustworthiness strategies was to seek alternative interpretations to answer the research questions (Tracy, 2010:844).

Transferability was established in this study by providing enough information about the research environment and the participants to transfer the findings to another context or population (cf. Mandal, 2018:592). To achieve transferability, a detailed description and an overall picture of the investigation were provided. Dependability involves how well the findings and recommendations of the study align with the data generated by the participants (Ellis, 2019:111). In this study, dependability was maintained by a transparent description of the research process and keeping an audit trail via documentation. Confirmability can be explained as the steps used to ensure that the findings have not been driven by the characteristics and preferences of the researcher (Korstjens &

Moser, 2018:122). Once more, investigator triangulation and reflexivity were used to ensure that I was unbiased.

1.10 ETHICAL CONSIDERATIONS

Ethical considerations are essential ethical principles used to protect and respect research participants when conducting a study (Maree, 2016:44). This study ensured the principles of confidentiality, informed consent, voluntary participation and beneficence as ethical aspects to conduct the research. Confidentiality refers to protecting the participants' identity (Chowdhury, 2014:39). I did not identify the names of the learners who participated, but used pseudonyms, which they had chosen themselves. Informed consent means that the participants are fully informed about what is expected from them and what risks and benefits may accrue from participation (Pienimäki & Kotilainen, 2018:122). This study was part of my normal teaching, but I sought permission from the learners and their parents to use the data to write my dissertation. I received permission from the relevant office of the Department of Education and the school governing body and the principal of the primary school to conduct the research (Appendix F). I also obtained ethical clearance from the Ethics Committee of the Faculty of Education of the North-West University (Appendix F).

Although the learners were minors, they had the right to withdraw from participation in this study without any fear of retribution (cf. Gray, 2014:91). All of the learners completed the activities in class, regardless of whether they wanted their work to be used in the project. Consequently, they all benefited from developing their English language skills and their knowledge about the dangers of cannabis use. They also improved their problem-solving, analytical and group decision-making skills because of participation. Since the focus in the study was on increasing their knowledge about the dangers of cannabis use, and not on their personal experiences of it, no personal information of a sensitive nature arose. However, as the children were minors, I arranged for a counsellor (my study supervisor, who is a registered social worker) to be telephonically contacted should I become aware that any of the participants needed such assistance.

1.11 CONTRIBUTION OF THE STUDY

This participatory action research approach enhanced the life skills of the participants and increased knowledge about how to conduct drug abuse prevention programmes among adolescents. The findings can be used to inform the policy within the school, government policies and the policing sector on substance abuse prevention education. Moreover, the results of this study show how social issues can be addressed within school subjects such as English.

1.12 CHAPTER DIVISION

This study is presented in the following layout:

Chapter One presents an overview of the research rationale, the chosen methodology, the measures adopted to ensure trustworthiness and the ethical considerations.

Chapter Two is a literature review of prevention education and the dangers of adolescent cannabis use. Furthermore, Bandura's social learning theory is discussed with reference to this study.

Chapter Three provides a theoretical discussion of the research methodology followed. The ethical considerations and trustworthiness of the study are also explained in detail.

Chapter Four examines the findings of Cycle One of the study and how these research findings relate to the existing literature.

Chapter Five presents and discusses the research findings of Cycle Two of the study.

Chapter Six presents a summary of the study, a reflection on the research questions and guidelines about educating for the prevention of cannabis use among adolescents through participatory action research.

1.13 SUMMARY

This chapter provided an overview of the study. I focused on the background and the rationale of the issue of cannabis use in South Africa, which led to the problem statement. I presented the focal research questions used, defined my research aims and provided a clarification of the concepts used. This was followed by a brief discussion of the theoretical framework, the research design, the data-generating methods, measures to ensure trustworthiness and ethical considerations. To conclude, the contribution of this study was set out, and the research framework of the chapters was given. In Chapter Two, the existing literature and theory on the detrimental consequences of adolescent cannabis use and prevention education will be critically reviewed.

CHAPTER TWO: CRITICAL REVIEW OF THE LITERATURE AND THEORY ON THE PREVENTION OF ADOLESCENT CANNABIS USE

2.1 INTRODUCTION

This chapter presents a critical review and discussion of the literature and theory about the dangers of adolescent cannabis use and prevention education. I focus on existing literature that explains the impact of cannabis use on adolescents and critically analyse the different approaches to drug education in South Africa. To conclude this chapter, Bandura's social learning theory is discussed with reference to my study.

2.2 DANGERS OF CANNABIS USE AMONG ADOLESCENTS

Adolescence is a period in which substance experimentation and exploration are common (Jiloha, 2017:111). Dagga, the greenish-brown dried flower inflorescences of the female *Cannabis* plant (Punja, 2018:514), has become one of the most well-known psychoactive substances used and abused in South Africa, especially among adolescents (Muchiri & Dos Santos, 2018:24; Peltzer *et al.*, 2010:2221). Cannabis is usually smoked (Mariani *et al.*, 2011:250) but can also be vaporised, used transdermally or consumed orally through edibles (Wilkinson *et al.*, 2016:454), often called "space cakes". Its pleasurable "high", sociable or relaxed feeling is caused by tetrahydrocannabinol (THC), the main psychoactive ingredient in cannabis. Research indicates that 4,5% of all Grade 8 to 11 students are using this psychoactive substance (Peltzer & Phaswana-Mafuya, 2018:3).

There is a danger that figures with regard to cannabis use may increase due to the recent decriminalisation thereof in South Africa (Visser, 2018:44), as previously seen in countries such as America (Melchior *et al.*, 2019:1) and Canada (Karbakhsh *et al.*, 2018:752). This places South African adolescents, including those in my community, at a high risk of experiencing the detrimental physical, academic and social consequences of cannabis use, which I will explain in the next section. I am aware that the dangers of adolescent cannabis use are broad and overlapping, but for ease of understanding, I will discuss separately the most widely accepted consequences of cannabis use for adolescents, the age group I am working with.

2.2.1 Physical consequences

The euphoric effects of cannabis depend on the potency of the cannabis strain, the method of use, the dose, whether or not it is taken with alcohol or other illicit drugs and even the adolescent's expectations of the cannabis-related experience (Smith, 2015:18). Adolescents tend to experience

several short-term and long-term effects during and after the use of cannabis. Specifically, within a few minutes of use, bloodshot eyes, a dry mouth, intense laughter and an increase in thirst and/or hunger (Oberbarnscheidt & Miller, 2017:2), often referred to as “the munchies”, have been reported. Other short-term physical effects of cannabis use are slightly raised blood pressure and accelerated heart rate, as this substance affects the nervous system (Burt *et al.*, 2020:6). Basnet *et al.* (2009:545) have found that adolescents’ heart rate could increase up to 100% after using cannabis.

More concerning, however, are the long-term physical consequences of cannabis use among adolescents. As with conventional smoking, adolescent cannabis users who have had prolonged exposure to this substance experience heightened risks of lung cancer and oral cancer (Parry & Meyers, 2014:400). Lung diseases and respiratory issues, such as constant coughing and breathing abnormalities, have also been reported among chronic adolescent cannabis users (Wong & Halpern-Felsher, 2020:138). Cannabis tends to irritate the adolescent’s lungs, and it seems to contain much more cancer-causing chemicals than conventional tobacco (Adoga, 2018:168). Prolonged exposure to cannabis may also affect the reproductive system of both male and female adolescents. THC can affect hormonal functioning and may cause early puberty and low sperm count among male adolescent cannabis users (Negriff & Trickett, 2012:95) and menstrual and ovulation abnormalities among girls (Chadi & Levy, 2019:351).

Furthermore, adolescent cannabis use may cause some long-term mental consequences. For example, using cannabis during adolescence may increase vulnerability to drug addiction as an adult (Mokrysz *et al.*, 2016:961). In 2010, one third of South African adults in treatment for drug abuse mentioned cannabis as the first substance they had ever used (Ramlagan *et al.*, 2010:46). Cannabis use during adolescence also heightens adults’ chances of developing schizophrenia (Malone *et al.*, 2010:511) and mood disorders (Chadwick *et al.*, 2013:129). Specifically, the study of Casadio *et al.* (2011:1781) has found that adolescents who use cannabis double their chances of developing schizophrenia in adulthood. Magidson *et al.* (2017:1414) have assessed the influence of sexual activity, alcohol and drugs on adolescents’ psychological health in South Africa and have found that drug use, including cannabis use, may contribute to symptoms of depression, especially among female adolescents, which often tend to continue until adulthood. These consequences are because of the effect of cannabis on the neurotransmitter system (Rubino *et al.*, 2012:184).

Taken together, adolescents’ use of cannabis has both short-term and long-term physical consequences. Adolescents’ bodies are immature, and their brains are still developing (Fontes *et al.*,

2011:446; Hurd *et al.*, 2014:1). Consequently, the use of cannabis during this vulnerable period could also influence their academic performance (Jacobus & Tapert, 2014:2186).

2.2.2 Consequences for academic performance

Adolescents' use of cannabis is known to have a profound impact on their educational achievement and commitment to education. Regular use could lead to psychosis, especially when used with alcohol (Cruz & Domínguez, 2011:88). South African research has shown that adolescents who use cannabis often struggle with impaired verbal memory (Le Roux & Mokhele, 2011:135). Once cannabis has been used, THC attaches itself to the adolescent's brain receptors, specifically the brain receptors in the hippocampus that control memory formation (Ashtari *et al.*, 2011:1057). This affects adolescents' academic performance, as they struggle to recall words and information during and after intoxication (Solowi *et al.*, 2011:139). This may result in lower test scores or failure to meet the minimum grade requirements (Meier *et al.*, 2015:207). Notably, THC could also cause a diminished attention span among adolescents, which could last for up to six hours after use (Randolph *et al.*, 2013:136). This may lead to the inability to effectively complete educational assignments or tests within the allocated time. Furthermore, as cannabis is a fat-soluble substance that distributes itself into the fatty tissue of the brain, lowered motivational levels, impairment in educational goal setting and issues with productivity can result from cannabis use (Pacheco-Colón *et al.*, 2018:1158). The Department of Basic Education (2013:4) explains that in South Africa, there is a consistent relationship between adolescent absenteeism and school drop-out and adolescents' use of substances, which includes cannabis.

The co-use of cannabis and alcohol seems to induce mind-altering effects, such as visual and auditory hallucinations. For example, after co-using these substances, an adolescent participant in a study conducted by Cruz and Domínguez (2011:88), reported that she felt as if she saw largely written signatures and letters on the classroom floor of learners who had previously attended her school. Some adolescents hear frightening voices after mixing these substances. Although the literature on this topic is limited, it seems that these psychotic episodes occur because alcohol intensifies the potency of THC (Downey *et al.*, 2013:879). Furthermore, the use of alcohol may influence blood flow, which often results in increased absorption of THC. Ultimately, the behaviour associated with psychosis or severe intoxication may lead to an increase in school-based violence, bullying (Manu *et al.*, 2017:3) and other negative social consequences.

2.2.3 Social consequences

The use of cannabis can result in impulsive decisions and several long-term social consequences. Some adolescents may fear that they will behave inappropriately during social situations, and so they withdraw and avoid socialising with friends, relatives and community members who do not use the substance (Nelemans *et al.*, 2016:483). Some adolescents stop participating in sports or other extra-mural activities, as they gradually lose interest and motivation to take part in things they used to enjoy.

Arguments and dysfunctional interaction with family members and friends often increase (Nonnemaker *et al.*, 2012:1340), as adolescent cannabis users tend to become irritable and even aggressive towards their family, especially when they want to use cannabis but are unable to do so in their presence. As a result, adolescents often spend more time with other cannabis users, as they feel more accepted by them (Mudavanhu & Schenck, 2014:383). This, in turn, gives rise to negative peer pressure to use more or harder drugs (Mehanović *et al.*, 2020:107459).

Moreover, Chibaya and Maritz (2016:267) have found that adolescents' use of cannabis often leads to the use of heroin and cocaine – much harder drugs, with more harmful effects. Thus, cannabis tends to act as a gateway drug to other illicit drugs (Hurd *et al.*, 2014:4). Umra (2017:99) has found a positive correlation between South African adolescents' use of cannabis and their use of alcohol and cigarettes. Much too often, adolescents start to use conventional tobacco to disguise their use of cannabis in public locations or to mask the cannabis-related smell. Cannabis alters the brain's reward processing, and the use of it may encourage adolescents to seek more rewarding euphoric experiences, often without careful consideration of the consequences. In fact, after using cannabis, adolescents, especially male adolescents, are more likely to make risky and impulsive decisions, such as engaging in unprotected sexual experiences, which could lead to unwanted pregnancies and a higher risk of contracting sexually transmitted infections, such as the human immunodeficiency virus (HIV) (Bana *et al.*, 2010:156).

From this discussion, it is evident that adolescent cannabis use has a negative impact on health, academic achievement, health-related decisions and social relationships. To reduce these cannabis-related consequences, there is a need to spread awareness about the dangers of cannabis use among adolescents (Manu *et al.*, 2017:9), and South African schools are in a favourable position to do this. Schools provide easy access to adolescents, and it is especially at the school-going age that drug-using habits, including cannabis-using habits, often begin (Lebese *et al.*, 2014:341).

2.3 OVERVIEW OF THE CURRENT APPROACHES TO DRUG EDUCATION IN SOUTH AFRICA

In the section that follows, the different approaches to drug education in South Africa are critically analysed. I will focus on parental strategies (Groenewald & Bhana, 2018:151), community social norm interventions (Motamedi *et al.*, 2016:700), whole-school strategies (Department of Basic Education, UNICEF & Centre for Justice and Crime Prevention, 2015:14), curriculum interventions (Department of Education, 2012:10), extracurricular interventions (Department of Basic Education, 2013:24) and, lastly, peer education (Department of Education, 2015:10), a youth-led intervention plan I aim to use in my own study.

2.3.1 Parental strategies

Parents are important agents in the prevention of cannabis use among adolescents (Department of Basic Education, 2013:21). Parental skills, such as parental monitoring, discipline and communication, can reduce the prevalence of adolescent cannabis use (Stockings *et al.*, 2016:281; Tornay *et al.*, 2013:1229). The Positive Parenting Programme and Strengthening Families Programme are examples of South African parental intervention programmes (Haggerty *et al.*, 2013:1). In these programmes, parents observe demonstrations and practise techniques that could help them to engage with their children in a manner that prevents the use of cannabis (Shenderovich *et al.*, 2019:1006). In addition, parental sessions focus on improving parental monitoring, family bonding and overall family functioning (Griffin & Botvin, 2010:520).

Some limitations to this approach, however, have also been reported (Shenderovich *et al.*, 2018:977). South African parents often live in different geographic locations than their children due to work demands and may find it is too expensive or time consuming to attend scheduled meetings (Mafa & Makhubele, 2019:14122). Adolescent cannabis use often seems to appear in school hostels or at social gatherings (Egan *et al.*, 2019:297), and parents may not be aware of the need to form part of substance-related prevention programmes. Studies have also explored how South African schools could implement community social norms interventions to prevent adolescent cannabis use (Puljević & Learmonth, 2014:193; Ramson, 2017:65).

2.3.2 Community social norms interventions

Globally and in South Africa, schools have also implemented community-based social norms interventions to prevent the use of substances among adolescents (Department of Basic Education, 2013:23; Pelzer *et al.*, 2010:2231). Adolescents often perceive cannabis as an acceptable substance (Walker *et al.*, 2011:727), especially now that it is legal to use by persons older than 18 (Ganz *et al.*,

2017:1). Social norms are unwritten rules that define actions as acceptable or appropriate (Cislaghi & Heise, 2018:2), and thus intervention is needed to change these perceptions.

The approach of community-based social norms interventions disseminates non-moralistic messages among adolescents (Stock *et al.*, 2016:3). Pamphlets, newspaper editorials or radio announcements are generally used for this purpose (Allara *et al.*, 2015:1). In 2015, the Anti-Drug Forum, with the support of adolescents, also used placard demonstrations to promote anti-substance messages (Jagganath, 2015:230). Adolescents from 60 schools in and around Chatsworth, a South African township, voiced slogans, such as “hugs not drugs” to community members, peers and family members on main roads (Jagganath, 2015:231). In theory, the dissemination of healthy social norms could promote informed decisions among adolescents (Jagganath, 2015:230), such as the avoidance of cannabis use.

Nonetheless, mass media strategies often fail to provide frequent and prolonged exposure to anti-substance messages (Das *et al.*, 2016:74), and adolescents may forget about what has been said and done. To the contrary, whole-school strategies tend to integrate cannabis prevention into day-to-day school practices, processes and policies (Hunt *et al.*, 2015:802) to ensure more anti-cannabis exposure among adolescents.

2.3.3 Whole-school strategies

The Department of Basic Education (2013:20) recognises its crucial role in the prevention of adolescent cannabis use and has developed and implemented several approaches for this purpose. The whole-school approach defines the entire school community as a unit of transformation. The strategies used in this approach share a universal purpose (Hunt *et al.*, 2015:806) and are generally included across teaching, the school environment and parental and community partnerships (Goldberg *et al.*, 2019:377).

Schools that implement this prevention approach often develop anti-substance policies (Department of Basic Education, 2013:25), which explain the procedure of detecting substance use among adolescents, disciplinary methods to be used and treatment options. All classroom teachers receive training on the policies (Department of Basic Education, UNICEF & Centre for Justice and Crime Prevention, 2015:40), as they are in a prime position to identify warning signs of cannabis use among adolescents. Discussions are held with selected adolescent cannabis users and their parents to intervene before the adolescents cause any harm to themselves or those around them. Lastly, stakeholders, such as nurses from local clinics, celebrities who reject substance abuse or the police

(Stockings *et al.*, 2016:289), are involved to present motivational talks at schools. Accordingly, the Department of Basic Education (2013:21) states that schools need to involve parents and stakeholders to reduce the prevalence of substance abuse among adolescents, which includes cannabis use.

However, some factors hinder the implementation of this approach. For instance, many adolescents are stigmatised by teachers or peers who are aware of their use of cannabis (Moreira *et al.*, 2015:126). Teachers often do not report adolescent cannabis use due to their fear of being assaulted while approaching the adolescents or even their parents on this matter (Moreira *et al.*, 2015:131). Stakeholders are often not informed about the happenings at schools, and their motivational talks may have little to no impact on adolescents' behaviour. Curriculum interventions, however, provide drug education to all adolescents (Botvin & Griffin, 2015:177), whether they use cannabis or not. These strategies are implemented in the subject life orientation (Department of Education, 2012:9).

2.3.4 Curriculum interventions

Life skills programmes often seem to be the most effective method to spread awareness about the dangers of cannabis use among adolescents (Botvin & Griffin, 2015:180). Economically, life skills programmes are cost-effective, as they form part of the school curriculum (Kibret, 2016:163). Three substance-related prevention components are also delivered through this approach, referred to as the personal competence component, the social competence component and the drug resistance component (Botvin & Griffin, 2015:177).

The personal competence component tends to support adolescents in developing self-management skills (Botvin *et al.*, 2015:49). In this component, adolescents learn how to effectively solve problems, make important health-related decisions (Prajapati *et al.*, 2015:3), identify influences that may lead to the use of cannabis and improve themselves holistically. The social competence component mostly focuses on social skills (Prajapati *et al.*, 2015:3). Adolescents are trained in how to effectively communicate and develop healthy interpersonal relationships (Haug *et al.*, 2017:144). Skills in assertiveness are also taught to enable them to refuse offers of substance use (Haug *et al.*, 2017:144). The last component of life skills training, the drug resistance component, aims to develop skills of resistance and anti-cannabis perceptions and norms (Botvin & Griffin, 2015:180). Cannabis-related information and activities that improve self-esteem are usually included to help adolescents resist social pressure to use this substance (Griffin & Botvin, 2010:512). Interactive teaching strategies, such as classroom discussions, case studies, educational games and questioning, are typically used for delivering these skills (Prajapati *et al.*, 2017:3).

In South Africa, the above-mentioned life skills components are integrated within the subject life orientation, a mandatory subject, which was introduced as a learning area through the Curriculum Assessment Policy Statement (Department of Education, 2012:8). However, the Department of Education (2012:3) also tasks all educators to integrate life skills into their teaching of other subjects to ensure holistic development among adolescents (Department of Education, 2012:3). Life orientation covers five topics in Grade 7 to 9 (Department of Education, 2012:7), which are as follows:

- The development of self in society
- Health, social and environmental responsibilities
- Human rights and responsibilities
- Physical education
- Career choices

Drug education is delivered under the topic “Health, Social and Environmental Responsibilities”, but as life orientation has an interrelated nature (Department of Education, 2012:7), several personal competence, social competence and drug resistance skills are also included in the other four topics of this subject (as indicated in Table 2.1). Self-image, often also referred to as “self-perception”, and peer pressure, personal lifestyle choices and challenging situations may contribute to adolescent cannabis use (see Section 2.4).

Table 2.1: Overview of the drug-related topics taught in Life Orientation for Grade 7 to 9 (Department of Education, 2012:9)

Topic	Grade 7	Grade 8	Grade 9
1. Development of self in society	• Concept: self-image • Changes in boys and girls: puberty • Peer pressure • Concepts: personal diet and nutrition	• Concept: self-concept formation and self-motivation • Concept: sexuality • Relationships and friendships	• Goal-setting skills: personal lifestyle choices • Sexual behaviour and sexual health • Challenging situations: depression, grief, loss, trauma and crisis
2. Health, social and environmental responsibilities	• Concept: substance abuse • Concept: environmental health • Common diseases: tuberculosis,	• Social factors that contribute to substance abuse • Environmental health issues • Decision making about health and	• Concept: volunteerism • Health and safety issues related to violence

Topic	Grade 7	Grade 8	Grade 9
	diabetes, epilepsy, HIV and AIDS	safety: HIV and AIDS	
3. Constitutional rights and responsibilities	- Human rights as stipulated in the South African Constitution - Fair play in a variety of sport activities - Dealing with abuse - Role of oral traditions and scriptures of major religions	- Nation building - Concept: human rights violations - Concept: gender equity - Concept: cultural diversity in South Africa - Contributions of organisation from various religions to social development	- Issues relating to citizens' rights and responsibilities - Constitutional values - Contributions of various religions in promoting peace - Sport ethics
4. World of work	- Importance of reading and studying - Career fields, simulation of career-related activities - Values and importance of work in fulfilling personal needs and potential	- Different learning styles - Six career categories - Relationship between performance in school subjects and interests and abilities - Decision-making process	- Time-management skills - Reading and writing for different purposes - Options available after completing Grade 9 - Knowledge of the world of work - Career and subject choices - Study and career funding providers - Plan for own lifelong learning
5. Physical education	- Participates in fitness programme - Plays community or indigenous games that include the concept of invasion - Performs a sequence of physical activities - Participates in an outdoor recreational programme - Safety issues	- Participates in physical activities that promote components of fitness - Plays target games - Programme to improve movement techniques - Participates in an outdoor recreational activity - Safety issues	- Improves own physical wellness level - Executes a game plan for individual or team sport - Refines own and peer performance in movement activities - Refines own performance in an outdoor recreational activity - Safety issues

Yet, despite the reported success of life skills programmes in the prevention of cannabis use among adolescents (Srikongphlee *et al.*, 2018:88), some South African educators struggle to comprehensively implement them (Pillay, 2012:174). Poorly trained educators may lack the enthusiasm to teach drug education (Jacobs, 2017:217) and may not use engaging methods during cannabis-related lessons. Teachers often hold negative moral views or religious beliefs towards drug use and may feel that it has no place in the classroom, as with sexual education. Some South African educators, especially those with more teaching experience, are aware of adolescents' negative verbal responses and "never mind attitude" towards drug education and thus may prefer to avoid teaching it (Walton *et al.*, 2016:5). Therefore, according to Lee *et al.* (2017:409), life skills training could be integrated into extracurricular activities, such as sports activities, to broaden its success.

2.3.5 Extracurricular interventions

Sports tend to present a useful environment to instil basic life skills among adolescents, such as decision making, problem solving and assertiveness (Cope *et al.*, 2017:792). Engaging in sports activities often enables adolescents to take control of their own lives and their future, develop holistically and increase their self-esteem (Whitley *et al.*, 2016:313). These life skills may reduce adolescents' vulnerability to substance abuse (Hills *et al.*, 2018:26), including cannabis use.

The Grassroot Soccer programme is a co-curricular programme that uses soccer to develop the necessary life skills among adolescents to live drug-free (Medich *et al.*, 2018:187). In this programme, matriculated young people with previous soccer experience, referred to as "coaches", act as positive role models among adolescents, and in return, the Grassroot Soccer programme creates employment opportunities for them (Rotheram-Borus *et al.*, 2016:1844). Generally, innovative activities, such as role-play scenarios, group discussions and soccer-themed exercises are used (Awotidebe *et al.*, 2014:1440) as an approach to cannabis prevention. In addition to the benefits of exercise, adolescents also receive information on the long- and short-term consequences of drug use and how to effectively communicate with health care providers or family members who could provide support to overcome these (Rotheram-Borus *et al.*, 2016:1845).

Yet, although this programme demonstrates some success in conveying substance-related knowledge (Swendeman *et al.*, 2019:229), coaches often base their participation motives more on generating an income, rather than on the belief that they are supporting adolescents to stop their use of cannabis. Frantz (2015:1) explains that adolescents who are trained as peer educators (which I aimed to do) are a more effective medium to convey youth-appropriate cannabis-related information, as peers relate more closely with them.

2.3.6 Peer education

Using the positive influence of peers on adolescents' substance-related decisions is not a new approach to school-based health promotion. In fact, according to Feith *et al.* (2018:58), peer educators have delivered prevention messages to address their peers' misuse of substances and smoking from the 1970s and 1980s. More recently, research has also shown its efficiency in delaying or preventing the initiation of cannabis use among young adolescents (MacArthur *et al.*, 2016:391).

The Soul Buddyz Club programme is a popular South African peer-led plan that was launched in 2003 (Schmid *et al.*, 2011:274). This programme originated in reaction to the television series *Soul Buddyz*, which aired in 2000, as television producers identified the need of various young learners who wanted to reproduce the activities they saw on the television series (Taket, 2013:40). In the Soul Buddyz Club programme, adolescents are mobilised to take responsibility for their health-related behaviour through afterschool discussions and awareness-raising events that are guided by a facilitator (Goldstein, 2010:83). It creates a platform for adolescents to voice their concerns and promote wellbeing among their peers. Farhana and Ahmed (2010:21) explain that the Soul Buddyz Club programme sparks activism among adolescents in South Africa, as both the club's participants and the facilitators grow personally and professionally.

Despite all the evidence on the efficacy of this approach in South African, research has found that peer education is a rather difficult term to define (Southgate & Aggleton, 2017:4). For the purpose of this study, peer education refers to an intervention strategy that recruits and trains a group of adolescents to educate their peers of the same age, status or grade on health-related behaviour (Department of Education, 2015:10; Maticka-Tyndale & Barnett, 2010:98). Peer education allows adolescents to learn about social issues, discuss it in their own language and convey youth-appropriate information among their peers (Lubman *et al.*, 2014:296). Through this prevention approach, adolescents act as role models among their peers, and teachers offer ongoing, yet strictly non-directive guidance and support to them on how to do it (Swartz *et al.*, 2016:360).

The effectiveness of peer education in spreading awareness on cannabis use among adolescents is attributed to the following factors:

- Adolescents are more likely to discuss their use of cannabis with their peers than with authority figures or teachers.
- Adolescents identify with the peer educators, as they share similar demographic characteristics, such as age, grade, gender and proximity to risky behaviour (Abdi & Simbar, 2013:1200).

- Adolescents understand the cultural context of their peers since they are also influenced by it.
- Adolescent peer educators have credibility and are much better listeners than adults (Kasirye, 2015:69).
- They use peer pressure in a positive way to increase self-efficacy among adolescents (Frantz, 2015:1).

Self-efficacy is the belief in one's capabilities to actively organise actions in order to attain a specific performance (Bandura, 1997:79). Adolescents with self-efficacy have control over their actions and are more likely to adopt healthy behaviour (El Sayed *et al.*, 2019:270), which includes not using cannabis. Bandura (1997:79) identifies four sources of self-efficacy, namely mastery of experiences, vicarious learning, performance feedback and positive emotional states, each of which is amenable to peer education (Simoni *et al.*, 2011:360). Peer education provides realistic opportunities for adolescents to develop and practise skills and to gain mastery of the experience (Feith *et al.*, 2018:71). These skills include leadership skills and communication skills, and adolescents who have developed these have the potential to positively influence their community long after the project has ended. Peers can model healthy behaviour that shapes the lives of those in their sphere of influence (Bandura, 1971:2). According to Barton and Henderson (2016:11), peers can cultivate adolescents' beliefs in their capabilities to make informed decisions through positive feedback and support. Moreover, this approach allows peer educators to deliver prevention messages on the dangers of cannabis use during normal interaction, rather than in the conventional classroom settings by adult educators with whom adolescents do not necessarily relate. Consequently, messages are delivered in a more positive emotional environment, as the adolescents are less likely to feel judged by their peers.

Although the implementation of peer education is relatively inexpensive (Vernon, 2010:119) and can be adapted to various social issues that affect adolescents (Bühler *et al.*, 2015:385; Dobbie *et al.*, 2019:742; MacArthur *et al.*, 2016:391), I was aware of the fact that it also poses some challenges when used as a prevention initiative. For example, much too often, peer educators misuse their authority or become too involved with their peers' issues (Schmid *et al.*, 2011:285). Schools and parents often feel that peer education programmes interfere with normal school periods. Lastly, peer education programmes tend to fail when the peer educators do not trust one another (Timol *et al.*, 2016:206). I, however, still believe that a peer-led intervention programme is a promising approach to spread awareness of the dangers of cannabis use among adolescents. To overcome these challenges, I offered appropriate guidance and support to the adolescent peer educators in a non-directive way. As the young peer educators would take control of the programme and develop their own cannabis-related

prevention messages and strategies, it would enrich a trusting relationship among them as the project group. Lastly, to increase the awareness of both the school and the parents on the benefits of this approach, I provided enough information beforehand to inform them about it. This intervention plan formed part of my normal English Second Language teaching, and the focus of it lay within the scope of the curriculum. In summary, my argument is that unless we give adolescents a voice on this matter, we will never truly understand how to spread awareness of the dangers of cannabis use among adolescents.

In the following section, I focus on how the social learning theory explains the personal, environmental and behavioural factors that could contribute to cannabis-related decisions of adolescents. This knowledge helped me to facilitate the design of prevention messages about the dangers of cannabis use.

2.4 BANDURA'S SOCIAL LEARNING THEORY AND THE PREVENTION OF CANNABIS AMONG ADOLESCENTS

A theoretical model is a set of interrelated concepts, definitions and propositions that systematically explain how learning is acquired (Glanz & Bishop, 2010:401) and what strategies could be used by researchers to design interventions (Salazar *et al.*, 2015:37). Many theoretical models have been advanced throughout history that may be applied to understand adolescents' behaviour (Gibbons *et al.*, 2012:170), including their cannabis-related behaviour. These interventions all seem to raise awareness of the dangers of cannabis use among adolescents and help them make healthy decisions (Peterson *et al.*, 2019:354).

Behaviourism, one of these theoretical models, is primarily concerned with observable behaviour (Schunk, 2012:27). It assumes that role models either provide rewards that strengthen the probability that the cannabis-related behaviour will be repeated, or they punish the behaviour, which will weaken the probability of adolescents repeating it (Ertuğrul & Tağluk, 2017:3926). Behaviourists also claim that adolescents use cannabis due to the anticipated high feeling it causes (Şen & Dilmac, 2017:112). They feel good when they use cannabis, and therefore they repeat it. Behaviourism, however, does not explain adolescents' use of cannabis in terms of cognitive functions. The cognitive theory explains that adolescents' cognition, beliefs and values (Schunk, 2012:27) influence them to use substances. Notwithstanding its success, the cognitive theory does not explain how environmental factors or behavioural factors can contribute to adolescents' cannabis-related behaviour.

The social learning theory is often referred to as the bridge between the behavioural learning theory and the cognitive learning approach (Walsh, 2014:171). It explains that adolescents acquire behaviour through vicariously observing influential models within their surroundings (Bandura, 1971:2). They then actively reflect upon the actions, based on received feedback (Bandura, 1997:79). However, it is not just the adolescents' environment that may contribute to their cannabis use, as behavioural trends and personal factors could also influence them to use it. Adolescents' behaviour is a result of a three-way active relationship between the environmental, personal and behavioural factors (Bandura, 1978:345), defined as triadic reciprocal determinism.

2.4.1 Triadic reciprocal determinism and adolescent cannabis use

Triadic reciprocal determinism explains that adolescent behaviour simultaneously affects and is affected by both environmental factors and personal characteristics (Bandura, 1978:346). Young children are not passively shaped by their environmental context as products, but actively interact with it as producers. These experiences could determine how adolescents, and all individuals, think about and reproduce particular behaviour (Bandura, 1978:345).

Research has shown that adolescent cannabis use is often associated with personal factors in adolescents' lives (Cohn *et al.*, 2015:79; Lew *et al.*, 2018:346; Spinola *et al.*, 2017:132) and reinforced by role models in their environment (Caouette & Ewing, 2017:90; Roditis *et al.*, 2016:171; Schuler *et al.*, 2019:99). Adolescents' behavioural factors could also explain the use of this substance, as some behavioural trends may influence their cannabis-related decisions (Frieze, 2017:214; Patrick *et al.*, 2011:109; Yeterian *et al.*, 2018:491). These three factors – personal, environmental and behavioural – may contribute to how adolescents in my community understand, feel about and act in relation to cannabis use (cf. Zimmerman & Farrell, 2017:228), as depicted in Figure 2.1.

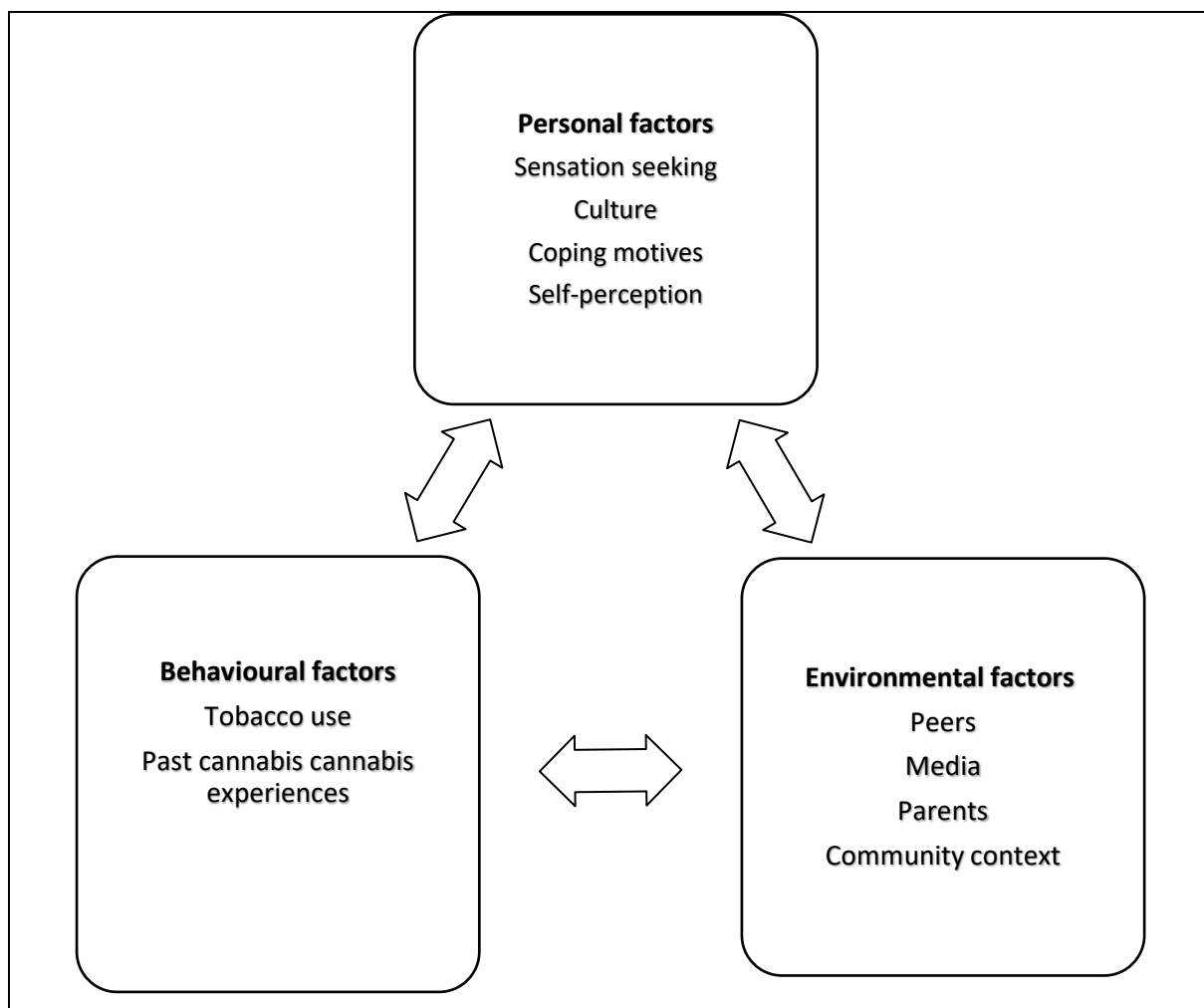


Figure 2.1: Triadic reciprocal determinism in relation to factors that influence adolescent cannabis use (adapted from Bandura, 1978:345)

2.4.1.1 Personal factors that may influence adolescent cannabis-related behaviour and use

Adolescents do not simply start using cannabis from observing individuals in their social setting, as their personal characteristics often also tend to influence them to experiment with it (Burdzovic *et al.*, 2017:1979). In fact, adolescents' sensation-seeking tendencies, culture, coping motives and self-perception play a contributing role towards the predisposition of their use of cannabis (Chabrol *et al.*, 2017:55; Chen *et al.*, 2018:30; Pokhrel *et al.*, 2018:1057; Subramaniam *et al.*, 2018:451).

2.4.1.1.1 Sensation seeking

Although there are many personal influences for cannabis use during adolescence, sensation seeking often tends to be comorbid with the use of substances (Mahu *et al.*, 2015:1626). Adolescence is a time of experimentation, and young children in this period tend to seek new experiences (Lopes *et al.*,

2013:51). Sensation seeking can be defined as the tendency of individuals to seek novel experiences and the willingness to take all potential risks associated with these behaviours (Acheson *et al.*, 2016:2624).

Young sensation seekers are often motivated to acquire such experiences due to the pleasurable effect of this substance (Quinn & Harden, 2013:227). The THC found within cannabis alters adolescents' brain functioning, making them feel high – a feeling they enjoy and seek to reproduce (Squeglia & Gray, 2016:53). Cultural heritage could also influence adolescents to engage in experiences of cannabis use (Cruz *et al.*, 2017:558).

2.4.1.1.2 Culture

Culture can be defined as values, norms and behaviour that are learnt, transmitted and shared among social groups (Dubreta, 2013:94). These beliefs can affect various aspects of health-related behaviour, including adolescent cannabis use, in several ways. Cultural gender roles, for example, may result in preventing girls from participating in leisure activities at night, but allowing boys to engage in such activities (Atherton *et al.*, 2016:874). As a result, higher early-onset cannabis use among boys than girls has been reported (Loeber *et al.*, 2018:26).

Culturally, it is acceptable in various South African townships and rural communities to use cannabis on a frequent basis, in large quantities and in public places (Hills *et al.*, 2016:30308). Cultural values could also glamorise or embrace adolescent individualism and rebelliousness (Unger, 2014:51), manifested in behaviours that contravene accepted social norms. Lastly, social stressors in specific communities may increase the likeliness of adolescents using cannabis (Brown *et al.*, 2016:857), as adolescents often use this substance to cope with their stressful milieu (Copeland *et al.*, 2018:1755).

2.4.1.1.3 Coping motives

Late childhood is often associated with many life stressors (Lee-Winn *et al.*, 2018:132). Numerous studies have reported that adolescents often need to cope with academic failure, parents' divorce, death, victimisation and faulty relationships with parents or peers. In order to cope with these stressors, they often resort to using substances (Debnam *et al.*, 2016:733; Leonard *et al.*, 2015:1028), such as cannabis (Fox *et al.*, 2011:492), alcohol (Blumenthal *et al.*, 2010:5295) and conventional tobacco (Piko *et al.*, 2015:744). Cannabis relaxes adolescents and so, helps them escape their social and personal issues.

Furthermore, in South Africa, cannabis is relatively cheap (Riley *et al.*, 2019:3), especially when compared to the price of alcohol and conventional tobacco. It can easily be accessed in both rural and urban contexts (Peltzer *et al.*, 2010:2226), and drug dealers generally have no scruples regarding the sale of cannabis to adolescents. They often gain access to this substance from peers and family members who use cannabis as a means of relaxation (Roditis & Halpern-Felsher, 2015:181). Adolescents' beliefs about using cannabis as an effective coping mechanism could further influence their self-perception (Gill *et al.*, 2015:208).

2.4.1.1.4 Self-perception

Adolescents' self-perception plays a critical role in substance use, as the way they perceive themselves may influence the outcome of their future health-related actions (Molinero *et al.*, 2011:402; Mudavanhu & Schenck, 2014:375; Richard *et al.*, 2010:195; Swaim & Stanley, 2019:1700; Wu *et al.*, 2014:42). Adolescents who are unhappy with their lives or even about their appearance, for instance, will more likely resort to using cannabis than those who are contented (Serafini *et al.*, 2013:4). Cannabis helps them to escape from the negative thoughts and feelings about themselves.

Similarly, adolescents who lack self-confidence often tend to use this substance to boost their confidence, as with alcohol use. For example, after being intoxicated by cannabis, an otherwise shy adolescent boy would be able to kiss the girl he is attracted to, as cannabis tends to loosen inhibitions and reduce social anxiety (Stapinski *et al.*, 2016:109). Research has shown that social factors also play a factor in adolescent cannabis use (Molinero *et al.*, 2011:402).

2.4.1.2 Environmental factors that may reinforce cannabis use

Adolescents are in contact with a wide range of environmental factors that could influence their health-related behaviour (Teh & Otman, 2018:931). As described by the concept of triadic reciprocal determinism, adolescents' surroundings provide interactive experiences in which they observe behaviour and gain reinforcement to activate or guide their actions (Bandura, 1978:347). Numerous studies have focused on how adolescents' environmental factors, such as their peers, media exposure, their parents and the community they live in, could provide positive cannabis experiences and reinforce using this substance (Jackson *et al.*, 2018:146; O'Loughlin *et al.*, 2019:142; Pruginin *et al.*, 2018:139).

2.4.1.2.1 Peers

Adolescents usually spend more time with their peers than with adults (Albert *et al.*, 2013:115), perhaps due to their growing need for independence. On the one hand, adolescents' friendships support the development of their social skills and problem-solving skills (Tomé *et al.*, 2012:27), but on the other hand, social interaction with friends who use substances may contribute to the initiation of substance use (Wongtongkam *et al.*, 2014:1448). Peers who use cannabis themselves often distribute cannabis among others in their social setting and contribute to making cannabis available (Caouette & Ewing, 2017:92). Williams and Gray (2017:419) have assessed the accessibility and availability of cannabis among adolescents and have found that especially older peers, both in and out of school, often entice younger adolescents to use this substance. Older peers often cultivate their own cannabis or introduce adolescents to new strains of cannabis with higher potencies (Frieze & Grube, 2013:34) or mixing cannabis with mandrax, prescription drugs or other illegal drugs, such as ecstasy (Pelzer *et al.*, 2010:2225).

Frieze (2017:215) has found that having friends who use cannabis may pressure adolescents into using this substance, since the use of cannabis could result in social acceptance, while cannabis refusal, in contrast, may result in social isolation. Not only male but also female cannabis-using friends often pressure both male and female peers to experiment with it (McCoy *et al.*, 2019:59). This overlaps with adolescents' personal sense of themselves, as low self-esteem makes them more likely to succumb to peer pressure (Yazdi-Feyzabadi *et al.*, 2019:116). Peers, however, are not the only environmental risk factor in adolescents' surroundings (Gommans *et al.*, 2015:175).

2.4.1.2.2 Media exposure

Most adolescents have access to social media platforms (Mackey, 2016:159) due to the accessibility and affordability of technology. In fact, Facebook, Instagram and Twitter, as well-known social media platforms among adolescents, provide communication and access to shared knowledge (Shava & Chinyamurindi, 2018:6). Research, however, has also shown that these platforms could provide access to cannabis-related information, which may contribute to the use of this substance (Doggett *et al.*, 2019:100487; Moreno *et al.*, 2018:23). For example, exposure to cannabis on social media platforms normalises cannabis, as adolescents see influential celebrities advancing the notion of drug use as "cool" (Jenkins *et al.*, 2019:80). These platforms seldom implement restrictions on the information distributed by their users (Costello & Ramo, 2017:629).

Due to the recent decriminalisation of cannabis use in South Africa, cannabis businesses now also use social media to promote newly found cannabis strains and cannabis-related merchandise (Trangenstein *et al.*, 2019:107548). Such advertisements may influence adolescents' perceptions of cannabis and the use thereof (D'Amico *et al.*, 2018:385). A longitudinal study done by D'Amico *et al.* (2015:619) assessed the effect of cannabis advertisements on 8 214 middle school learners and found that adolescents who had higher intentions to use cannabis also reported having seen more cannabis-related advertisements. Although research has shown that parental restriction could reduce adolescents' exposure to such advertisements (Jackson *et al.*, 2018:156), some studies have conversely found that some parental factors may also negatively influence adolescents to use cannabis (Hill *et al.*, 2018:93).

2.4.1.2.3 Parents

Parents have the crucial role of responding to their children's needs, modelling responsible living and protecting their young children against hazardous behaviour (Kosterman *et al.*, 2016:451). However, research has also found that these caregivers may increase the likelihood of an adolescent using cannabis (Henry & Augustyn, 2017; Wisk *et al.*, 2019:59). Literature examining parental control, for example, equates low parental control with a high prevalence of cannabis use among children (Creemers *et al.*, 2015:64). Parental rules and restrictions are needed to monitor adolescents' whereabouts and reduce their contact with cannabis-using peers within cannabis-using circles (De Looze *et al.*, 2012:60). An investigation done by Bohnert *et al.* (2012:176) found that parental monitoring could decrease the likelihood of an adolescent using cannabis by 6%. Nevertheless, many South Africa parents do not set rules and restrictions, due to cultural beliefs, personal discomfort or even ignorance (Kliewer *et al.*, 2017:255).

Policymakers, health researchers and intervention specialists have also been concerned with the influence of parental cannabis use on adolescent cannabis use (Kerr *et al.*, 2015:222; Kosty *et al.*, 2015:1111). The literature suggests that the children of parents who use substances, including cannabis, are more likely to use the substance themselves (Madras *et al.*, 2019:1). Miller *et al.* (2013:852) have shown that the children of cannabis-using parents hold positive cannabis-related outcome expectancies and pro-cannabis use attitudes. They also have low expectancies of parental punishment for using this substance (Miller *et al.*, 2013:852), as parents who use cannabis themselves seldom disapprove of their children's cannabis use. Another context that often increases adolescent cannabis use involves communities where cannabis use is prevalent, as adolescents living in such communities grow up seeing it as normal (Leifheit *et al.*, 2015:781).

2.4.1.2.4 Community context

Recent research has increasingly focused on how neighbourhood characteristics can increase the likeliness of adolescents' using and abusing substances, including cannabis (Horner *et al.*, 2011:164; Moon *et al.*, 2014:150; Shakoor *et al.*, 2015:144). Adolescents living in environments with high rates of crime or domestic violence, for instance, often rely on cannabis as a coping mechanism for environmental stressors (Fagan *et al.*, 2015:314). Residential instability, another neighbourhood characteristic, often disrupts the solidarity of the neighbourhood and residential trust, which could lead to neighbours being unwilling to monitor adolescents' health-related actions, which would have benefitted the whole community (Lambe & Craig, 2017:462).

The physical environment of a neighbourhood could translate to adolescent cannabis use (Delva *et al.*, 2014:3443; Furr-Holden *et al.*, 2015:268; Lardier Jr *et al.*, 2018:449). Adolescents living near a cannabis point of sale, for example, have easier access to this substance and often observe others using cannabis, which could influence their perceptions on the health risks associated with cannabis use (Palali & Van Ours, 2015:1484). Similar results can also be seen with adolescents living in rural environments. A study done by Mothibi (2014:183), which has focused on the relationship between rural living and the prevalence of substance abuse among adolescents, has found that the lack of recreational resources may contribute to the use of substances, including cannabis, as adolescents often use substances to overcome boredom.

The literature has also shown that societal norms regarding psychoactive substances may also predict adolescents' use of substances. The research of Friese and Grube (2013:39), done in the United States of America, has found that communities with liberal cannabis-related norms, often caused by cannabis legalisation, are more likely to result in a high prevalence of adolescent cannabis use. Furthermore, community members often send a normative message that substance use is acceptable, useful and normal, which can influence adolescents to such an extent that they adopt and later imitate such modelled behaviour (Pawlowicz *et al.*, 2010:545). To summarise, adolescents' use of cannabis could be influenced by neighbourhood characteristics, but research has also shown that some adolescent behavioural tendencies may contribute to the use of this substance (Chen *et al.*, 2018:926; Moss *et al.*, 2019:674; Van Ouytsel *et al.*, 2018:2353).

2.4.1.3 Behavioural factors that may contribute to adolescent cannabis use

Individuals, including adolescents, do not simply act on what they observe; they have the capability to reflect upon the consequences of behaviour, which often influence their own behaviour (Bandura,

1978:345). In other words, once adolescents have observed behavioural patterns among peers, parents and community members and on social media, they can cognitively plan or organise their actions prior to performing the actions themselves. Adolescents' tobacco use and past cannabis experiences could increase the likeliness of adolescents using cannabis, as these trends may influence their decisions to engage in experimenting with cannabis (Hapsari *et al.*, 2017:121; Weitzman *et al.*, 2019:7; Williams & Gray, 2017:419).

2.4.1.3.1 Tobacco use

Adolescence is a period associated with various lifestyle choices that may influence adolescents' current and later health-related behaviour (El Achhab *et al.*, 2016:1209). Much too often, adolescents choose to engage in unhealthy habits, which could increase their involvement in substance use, including the use of cannabis. Hindocha *et al.* (2015:165) explain that early-onset tobacco use may increase the likelihood of adolescents using cannabis. Conventional tobacco is often regarded as a gateway substance that could increase the probability of adolescents using other substances (Dierker *et al.*, 2018:213; Mayet *et al.*, 2011:1101; Ren & Lotfipour, 2019:700), such as cannabis and even more dangerous illicit drugs. As nicotine alters the brain's reward processing, smoking conventional tobacco can also encourage adolescents to seek more rewarding experiences, such as cannabis-related euphoric experiences (Ren & Lotfipour, 2019:697).

Adolescents often use conventional smoking to disguise their use of cannabis in public locations. A qualitative study, done by Haines-Saah *et al.* (2014:952), for example, has found that some adolescents keep their cannabis supplies, such as partially smoked joints, in conventional cigarette packets. Others co-use tobacco and cannabis to mask the cannabis-related strong smell (Haines-Saah *et al.*, 2014:952). Although adolescents' fear of getting caught may encourage such techniques of camouflaging cannabis use, past experiences may also have an impact on their beliefs about cannabis-related consequences (Kells *et al.*, 2019:27).

2.4.1.3.2 Past cannabis experiences

Although adolescents' willingness to use cannabis often differs due to age, culture, coping motives, self-perception and social vulnerability, studies have also found that the consequences of past experiences could have an impact on adolescents' decisions with regard to cannabis use (Moeller, 2017:25; Moffat *et al.*, 2013:40). An adolescent, like any other individual, is more likely to repeat previous behaviour when the results are positive, and avoid particular behaviour when it has been followed by negative consequences (Bandura, 1971:2). For example, adolescents who use cannabis to

self-medicate for depression and anxiety disorders, to boost their self-confidence, as a lifestyle choice or to ensure relaxation are less likely to reduce their cannabis use, as the cannabis behaviour results in positive consequences (Järvinen & Ravn, 2015:882).

Similar results are often seen when adolescents use cannabis for the social benefits thereof. For example, a qualitative study done by Järvinen and Ravn (2015:876) has found that adolescents often use cannabis with their substance-using parents, as it may increase parent-adolescent bonding or even parental trust. Others participate in cannabis-related experiences with peers to fit in (Kingston *et al.*, 2017:5) or to reduce peer victimisation, such as name calling. Moreover, adolescents living in communities with high rates of cannabis use often use this substance to acquire social approval; that is, when community members view using cannabis as normal, adolescents are more likely to engage in it to ensure acceptance among those in the community (Duff *et al.*, 2015:187). Consequently, such feelings of belonging among parents, peers and community members can negatively reinforce adolescents to favour cannabis-using experiences (Foster & Spencer, 2013:223).

2.4.2 Conclusion on personal, environmental and behavioural factors that may influence adolescent cannabis use

The above-mentioned personal, environmental and behavioural factors are the most cited reasons for adolescents, including those in my community, starting to use cannabis, and they often base their cannabis-related decisions on these factors. Adolescent cannabis use, however, is a complex phenomenon, as there is no single reason for adolescents starting to use or abuse it. These categories are not clearly demarcated; they overlap and can create a complex web of pressure among adolescents to use cannabis. However, when adolescents work together in groups, such as in the peer-led invention, they can generate ideas on how to spread awareness about the dangers of cannabis use among their peers and among themselves.

2.5 SUMMARY

In this chapter, I presented an overview of the literature on the prevention of adolescent cannabis use. I focused on the consequences of using this substance during adolescence and the different approaches to drug education in South Africa. Through the social learning theory, I saw that adolescent cannabis use is a complicated issue, with many contributing factors. However, peer educators may develop effective strategies that can spread awareness about the dangers of this substance among their peers as well as the adolescents involved as peer educators. In Chapter Three,

I will present the selected research methodology and design that I used to answer the research question of this study.

CHAPTER THREE: THEORETICAL DISCUSSION OF THE RESEARCH METHODOLOGY

3.1 INTRODUCTION

Chapter Two provided an in-depth literature review of the theoretical framework for the prevention of cannabis use among young adolescents. This chapter will recap the purpose of this study and the research questions. This will be followed by a discussion of the selected research methodology, specifically focusing on the research paradigm, the research design and the research methods (the site of the study and the participant recruitment, data collection methods and data analysis methods). A detailed explanation of the measures I used to ensure trustworthiness and the ethical considerations I took into account will conclude the chapter.

3.2 PURPOSE OF THE STUDY

This study aimed to engage adolescents through participatory action research to enable them to educate their peers about the dangers of cannabis use and to develop appropriate prevention messages for adolescents. I also aimed to develop guidelines from the findings of the study to inform teachers about how to integrate this pertinent social issue into their teaching. As the primary research question of a study tends to be a reformulation of its purpose, and the secondary questions are linked to the primary research questions (Ratan *et al.*, 2019:18), I formulated the following primary and secondary research questions:

3.3.1 Primary research question

- How can a participatory action research approach enable adolescents to educate their peers about the dangers of cannabis use?

3.3.2 Secondary research questions

- What perceptions and knowledge do adolescents have of the dangers of cannabis use?
- What strategies could adolescents develop to deliver prevention messages about the dangers of cannabis use to their peers?
- What guidelines can be developed to educate adolescents about the dangers of cannabis use in a contextualised way?

3.3 RESEARCH METHODOLOGY

In research, a research methodology guides the research process (Nieuwenhuis, 2016:51). In the following section, I explain the research methodology that supported me in connecting the philosophical standpoint and research methods. Table 3.1 summarises the research methodology used to conduct the study.

Table 3.1: Summary of the research methodology used to conduct the study

3.3 RESEARCH METHODOLOGY	
3.3.1 RESEARCH PARADIGM	Critical paradigm
3.3.2 RESEARCH DESIGN	Participatory action research
3.3.3 RESEARCH METHODS	
3.3.3.1 Site of study and participant recruitment	• Suburban primary school in Swartklip, Limpopo Province • Convenience sampling
3.3.3.2 Data generation strategies	• World Café • Photovoice • Recorded class discussions
3.3.3.3 Data analysis	• Thematic analysis
3.3.4 MEASURES TO ENSURE TRUSTWORTHINESS	• Credibility • Transferability • Dependability • Confirmability
3.3.5 ETHICAL CONSIDERATIONS	• Confidentiality • Informed consent • Voluntary nature of participation • Protection of participants from victimisation • Beneficence

3.3.1 Research paradigm

A research paradigm is a lens or worldview that researchers hold that supports them to make interpretative decisions in relation to ontology, epistemology and methodology (Kivunja & Kuyini, 2017:38). Ontology explains how researchers view the nature of social reality (Mack, 2010:5), and epistemology is the philosophical underpinning of how knowledge is understood and acquired (Scotland, 2012:9). Methodological assumptions provide an understanding of which holistic approach to use to answer the research questions (Jackson, 2013:55). Jackson (2013:52) explains that these philosophical underpinnings also commit researchers to select specific data generation and data analysis techniques.

Positivism, interpretivism and the critical paradigm are the main paradigms in educational research (Rehman & Alharthi, 2016:51), although variations of these paradigms have evolved (Nieuwenhuis, 2016:59), such as pragmatism and post-positivism. These paradigms differ in relation to their ontology, epistemology and methodology, as outlined in Table 3.2.

Table 3.2: Differences between positivism, interpretivism and the critical paradigm in relation to ontology, epistemology and methodology

Research paradigm	Positivism	Interpretivism	Critical paradigm
Ontology	Positivism views reality in terms of generalised or discovered immutable laws (Ryan, 2018:44).	Interpretivism assumes that reality is socially constructed and multiple perspectives exist (Al Riyami, 2015:413).	The critical paradigm captures reality within a particular social and cultural context (Shah & Al-Bargi, 2013:259).
Epistemology	Knowledge is generated by formulating and testing hypotheses, which then predict behaviour (Mack, 2010:6).	Knowledge depends on how participants interpret the world (Jackson, 2013:54).	Constructed knowledge is explanatory, practical and transformative (Asghar, 2013:3123).
Methodology	Experimental methods from natural science are replicated (Taylor & Medina, 2011:3).	The researcher is a co-creator of interpretations (Nieuwenhuis, 2016:61).	Research methods encourage participants to critique the status quo and construct an improved view of reality (Dammak, 2015:9).

This study was positioned within the critical paradigm. The critical research paradigm, developed by Horkheimer, Marcuse and Adorno in an attempt to test and refine the Marxist tradition (Asghar, 2013:3123), empowers oppressed groups to take part in social transformation. Ontologically, the critical paradigm provides a framework for understanding social issues within a particular social and cultural context (Shah & Al-Bargi, 2013:259). Epistemologically, this paradigm enables the construction of explanatory, practical and transformative knowledge (Asghar, 2013:3123) to explain social issues, to identify ways to change the status quo and to support the development of practical guidelines for social transformation to occur (Dammak, 2015:9). Methodologically, the critical paradigm aims to increase the self-awareness of participants to foster change within their lives and situations (Asghar, 2013:3121). The aims of this study, namely to support adolescents to increase their awareness of the dangers of cannabis use and to use this knowledge to create adolescent-friendly, age-appropriate prevention strategies to educate their peers, were thus in line with the critical

paradigm. The research process would enable the youth to address a social issue that has a negative impact on the lives of many young people by creating novel ways of delivering prevention education in schools.

3.3.2 Research design

A research design is the general “blueprint” or plan used for conducting research (Flick, 2018:128). It explains the purpose of the study, the role of the researcher and the participants and the stages of the process (Astalin, 2013:118). Researchers also use a research design to solve research problems (Gray, 2014:690) and to ensure that the generated data are credible, trustworthy and valid (Nieuwenhuis, 2016:74). I used participatory action research as the research design for this study.

Participatory action research engages participants, including adolescents, in social transformation (MacDonald, 2012:34) by providing leadership opportunities. Traditionally, adolescents have had little involvement in research (Kim, 2016:38); however, aligned with an assets-based adolescent development approach, a participatory action research design affords them the opportunity to form part of the research plan and to provide recommendations for change (Anyon *et al.*, 2018:11). It builds on the knowledge, strengths and experiences of adolescents to understand issues that directly affect their lives (Zeller-Berkman *et al.*, 2015:25). Adolescents, therefore, are authors in this approach, with a voice in real-world problems, rather than being research objects (Livingstone *et al.*, 2014:286), as they co-own the results and co-interpret the generated data.

The participatory action research design also has an emancipative nature (Aasgaard *et al.*, 2012:1), as it encourages adolescents to take part in discussions about social issues and critically reflect upon them. They thus learn important skills, such as teamwork, problem solving, communication, self-reflection (Gardner *et al.*, 2019:15) and critical thinking (Foster-Fishman *et al.*, 2010:68). Community-based organisations, schools and diverse researchers have partnered with adolescents to understand and address social issues (Kornbluh *et al.*, 2015:871). In community settings, adolescents engage in research to improve their communities (Wright & Mahiri, 2012:123). In school-based settings, educators and learners focus on changing issues that affect the school environment (Ozer & Douglas, 2013:74).

As a participatory action research design is a genre of action research, it involves a cyclical research process (Kim, 2016:42). The cycles engage adolescents as co-researchers in one or more of the stages of the research, namely formulating the research problem, evaluating the research problem, planning action, acting on the research problem and assessing the outcomes (Langhout & Thomas, 2010:61).

An academic researcher acts as facilitator to guide the adolescents during the research process (Goto, 2010:2). He or she builds trust among the adolescent participants, motivates them to reflect upon their inputs, helps them to decide on a plan of action based on the data, supports the implementation and evaluation of the action plans, assists in knowledge mobilisation and reports on the research process (Bergold & Thomas, 2012:196),

A participatory action research approach was appropriate to guide this study, as I aimed to engage adolescents to research the physical, mental and social dangers of cannabis use for young people to find ways to prevent the use of this substance at their school. Although I defined the research problem, based on discussions with colleagues, observations of the prevalence of cannabis in the communities the learners come from and from reviewing several related studies, this design helped the adolescents to engage in cycles in which they collected data, analysed the data and designed and implemented adolescent-friendly prevention strategies within their school environment.

After recruiting the participants, we engaged in an activity where they had to identify their own skills, knowledge and values that could be used throughout the project. Building relationships is critical in participatory action research (Aldana *et al.*, 2016:349), as it creates a positive group dynamic and inculcates team spirit. To support the participants in taking co-ownership of the study (cf. Macaulay, 2017:256), I allowed them to decide on a name for the group. They called the group “Kids Talk Cannabis”, and they created a group logo (seen in Figure 3.3). Moreover, the project group chose their own pseudonyms used in Chapters Four and Five and agreed on some ground rules for the group.



Figure 3.1: Logo of the group

The study consisted of two cycles (as seen in Figure 3.4).

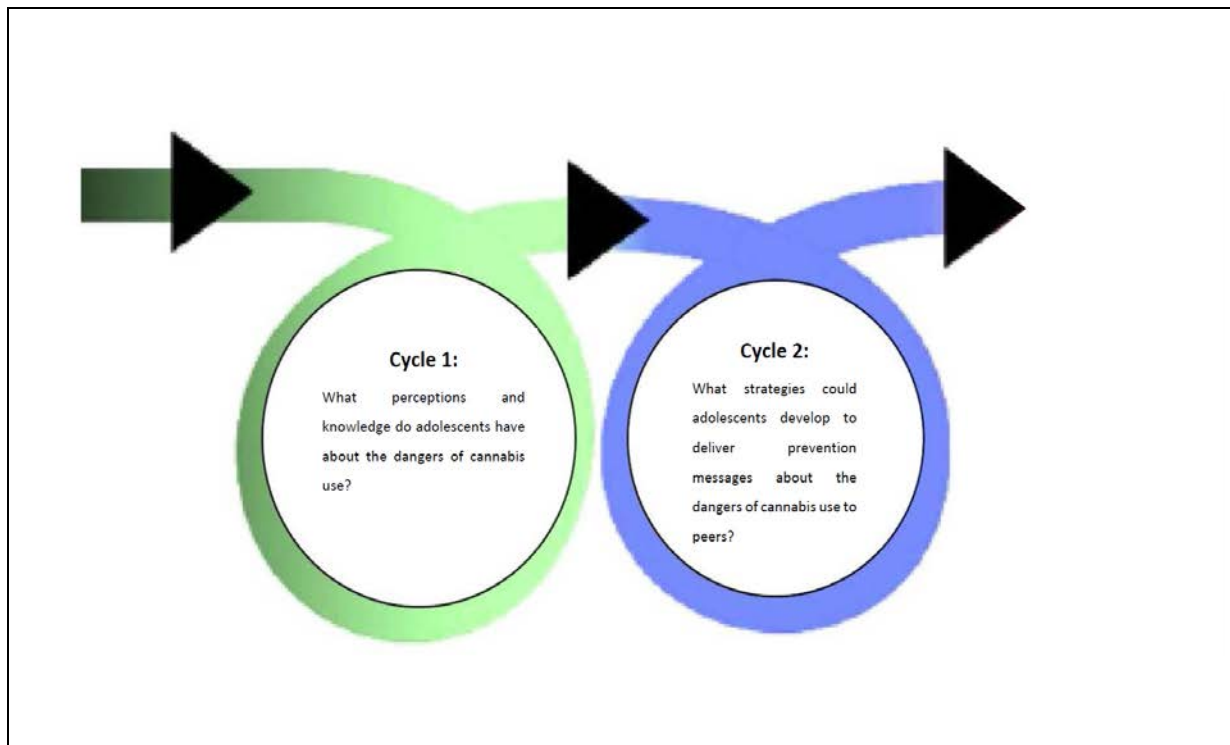


Figure 3.2: Cycles in this study

Cycle One: What perceptions and knowledge do adolescents have about the dangers of cannabis use?

In the first cycle, the adolescent participants deliberated on their perceptions and knowledge of the dangers of cannabis use by means of World Café – a strength-based approach that engages participants in dialogue about critical issues (cf. Thompson *et al.*, 2019:802). Inputs and ideas were collected on the specific questions; then, the input was summarised and discussed in the large group. After doing this and analysing the data, the participants derived prevention messages from the themes.

Cycle Two: What strategies could adolescents develop to deliver prevention messages about cannabis to their peers?

During the second cycle, the adolescent participants decided on how to deliver the prevention messages formulated in the first cycle. They chose to use visual and written artefacts generated through photographs and narratives to develop posters and an educational booklet to disseminate their findings.

The decision to discuss this social issue with the Grade 5 learners was based on the life orientation outcomes in their grade related to substance abuse prevention (Department of Education, 2011a:11).

The participating adolescents also expressed the desire to share their learning experience with their parents, and so they decided to take the booklet home with them to discuss the content thereof with their families.

3.3.3 Research methods

3.3.3.1 Site of study and participant recruitment

This study was conducted in a suburban primary school in Swartklip, Limpopo Province, South Africa. I used a form of convenience sampling, as being a teacher at this specific school gave me easy access to the participants (cf. Maree & Pietersen, 2016:197). Convenience sampling is a quick and cost-efficient sampling method, but the results obtained in such a study may not be generalised to the greater population (Maree & Pietersen, 2016:197). My study did not aim to generalise the findings to the greater population. It aimed to focus on the perceptions and knowledge of a selected group of adolescents of the dangers of cannabis use in order to design and implement prevention messages in their specific school.

As I integrated this research project into my normal teaching of English, all my Grade 7 learners were required to take part in the activities described in Cycles One and Two of the project. I teach 16 Grade 7 learners English as a second language, but I only used the data generated by those who had given assent and whose parents had given consent. Fourteen adolescents and their parents replied positively. The biographic information of the adolescent participants is presented in Table 3.3.

Table 3.3: The biographic information of the adolescent participants

Pseudonym	Age	Grade	Gender
Alejandro	13	7	Male
Dean	13	7	Male
Deon	13	7	Male
DJ	13	7	Male
Edward	13	7	Male
Hank	13	7	Male
Heidi	14	7	Female
John	13	7	Male
Kamija	13	7	Female
Kea	14	7	Female
Luke	13	7	Male
Page	13	7	Female
Savanah	13	7	Female
Shauna	13	7	Male

3.3.3.2 Data generation strategies

Data generation strategies are systematic instruments, methods or techniques used by researchers to capture, search for and extract data about a phenomenon (Goldkuhl, 2019:572). Data should be collected through various methods to ensure triangulation (Lub, 2015:6), as explained in Section 3.3.4. The data in this study were generated by a form of World Café, photovoice and audio recorded and transcribed class discussions to ensure triangulation.

3.3.3.2.1 World Café

World Café is an innovative participatory process used to generate data about a specific issue that can be modified to meet a variety of needs (Verhage & Jacobs, 2016:184). The participants are divided into groups and allocated to a table to discuss one critical question (Fouché & Light, 2011:1). A host is designated to each table to welcome the participants, manage the process and ask the questions. He or she remains there throughout the process, with the task of capturing the different discussions. A specific period is allocated to answering the questions, which are written on a large sheet of paper placed on the table. The participants can choose to record their discussions through notes, drawings, doodles or any other selected method (Prewitt, 2011:194). After the designated time has elapsed, the participants move to the next table and repeat the process until all of the participants have discussed all the questions (Cassidy & Fox, 2013:100). The hosts summarise and present the discussions they have recorded, and a plenary discussion is then held among all the participants (Anderson, 2011:338). The large group then analyses the data to formulate themes. I chose to use World Café, as I was aware that my participants would learn from one another (cf. Filies *et al.*, 2016:229), share their knowledge and perceptions among themselves and come to an understanding of the dangers of cannabis use from different perspectives (cf. Jorgenson & Steier, 2013:389).

Further advantages of World Café are as follows:

- World Café is a non-threatening and fun learning environment where participants can discuss sensitive topics (Carson, 2011:10).
- It provides opportunities for reflective learning among participants (Thunberg, 2011:330).
- Relationships are built, as the participants learn to trust and rely on one another in order to generate ideas (Gill *et al.*, 2016:98).
- World Café is inexpensive and accessible (Anderson, 2011:337).
- Participants practise spoken and written skills, without feeling obliged to speak in front of the whole group.

However, World Café has some disadvantages too. For example, the process may get too artificial and contrived (Prewitt, 2011:198), which could influence the participants' responses. To counter this, I asked some volunteers from my project group to design the environment of the café. They also designed a menu as a standard prop for each café table, which explained to the participants how the World Café process would work. The menu also provided some guidelines for participation, the specific question of each table and the purpose of the café event (seen in Figure 3.5).



Figure 3.3: Menu as a standard prop for each café table

I used World Café in Cycle One of the study to generate data to inform prevention messages that would resonate with adolescents about the dangers of cannabis use. Prior to starting with the process, I explained the purpose of the method. The questions at the respective tables were as follows:

- What do you know about the effects of cannabis on young people – their mind, their body, their studies, their relationships, etc.?
- What do you think influences young people to use cannabis?
- How do you think messages about the dangers of cannabis use and about making healthy decisions should be conveyed to young people?

As soon as we had discussed the data, we grouped the ideas under categories to generate themes.

3.3.3.2.2 Photovoice

Photovoice is a participatory data generation method that combines photography, critical dialogue and knowledge gained from lived experiences (Catalani & Minkler, 2010:424). It empowers participants to identify social issues and to raise awareness. The participants make their experiences concrete (Lipponen *et al.*, 2016:944) by capturing scenes that represent research themes. Images convey messages that words cannot. Thereafter, the photographs are interpreted, and narratives are written to explain how the photographs highlight the specific research themes (Catalani & Minkler, 2010:438).

Photovoice is a powerful data generation tool, as it:

- makes research participation an enjoyable experience (Vindrola-Padros *et al.*, 2016:637);
- promotes critical dialogues that can inform policymakers on how to better communities (Warne *et al.*, 2013:300);
- provides participants “the right to be heard” (Evans-Agnew & Rosemberg, 2016:1020);
- helps participants to reconsider issues that may lead to change in themselves (Nykiforuk *et al.*, 2011:119); and
- is a relatively straightforward way to collect data (Harley, 2012:320).

Photovoice was used in Cycle Two of this study to help the adolescent participants create visual and written artefacts for prevention education in their school. The adolescent participants were conscientised to take photographs with their mobile phones in an ethical manner, and I demonstrated how photographs could symbolically highlight ideas. I gave them a prompt, namely “Take photographs that illustrate the messages you wish to deliver around the dangers of cannabis use for young people”, and asked them to write short notes on what their photograph highlighted. When I had printed their photographs using portable printers, I returned the photographs to the participants and we viewed them. Each participant selected a photograph he or she wanted to write about (not necessarily their own). The SHOWeD questions, developed by Wang and Burris (1997:376), assisted the participants in writing their narratives.

- **S** (see) What do we **see** in the photograph?
- **H** (happening) What is **happening** in it?
- **O** (our lives) How does this relate to **our** lives?
- **W** (why) **Why** is this happening?
- **D** (do) What can we **do** to change it?

I helped the participants categorise the photographs and narratives according to themes, and they decided to make an educational booklet as a way of educating their Grade 5 peers on the dangers of cannabis use. The decision to discuss this social issue with the Grade 5 learners was based on the life orientation outcomes in their grade which related to substance abuse prevention (Department of Education, 2011a:11). The participating adolescents also wanted to share their learning experience with their parents, and so they took the booklet home to discuss the content with their families.

3.3.3.2.3 Recorded class discussions

Participatory action research requires participants to engage in group discussions about the issue and their ongoing findings (Bergold & Thomas, 2012:209). Thus, it improves the participants’

communication, listening and decision-making skills (Foster-Fishman *et al.*, 2010:71). As I used the data generated from normal class activities, I recorded our class discussions when the participants were presenting their findings, analysing the data, explaining their photographs and reflecting on the learning experience to supplement my memory. In order to capture the discussions, I recorded the class discussions and transcribed these to provide supplemental data for the written data and visual artefacts.

3.3.3.3 Data analysis

A data analysis process consists of data-handling methods aimed at interpreting research findings (Flick, 2018:306). It is during this process that researchers sort and re-sort the data until conclusions emerge or theories are understood. These interpretations supported me, as the researcher, to make sense of the data in relation to the research questions (cf. Elliott, 2018:2851).

I used thematic analysis on two levels. Firstly, the data from the World Café and the visual artefacts were analysed in the participant meeting by the group and me to draft broad themes and linked prevention messages. Secondly, I analysed the visual and textual data theoretically through the lens of the social learning theory to formulate guidelines to educate adolescents about adolescent cannabis use in a contextualised way.

Thematic analysis takes place through classification and categorisation as starting point (Alhojailan, 2012:40; Clarke & Braun, 2013:121). During this step, researchers who have already familiarised themselves with the data, start to organise the data by marking the data segments with colours or symbols (Nieuwenhuis, 2016:116). After that, themes are identified with notable patterns to address a research issue (Maguire & Delahunt, 2017:3352). Themes are combined categories that convey a similar meaning. Various interpretations of the research questions are possible during thematic analysis, as they allow reflection on and clarification of the reality (Javadi & Zarea, 2016:34). I therefore encouraged the learners to actively reflect on their learning in each stage of the process.

3.3.4 Measures to ensure trustworthiness

Trustworthiness in research refers to the reliability and validity of the collected data (Nowell *et al.*, 2017:3). To ensure trustworthiness in this study, I employed credibility, transferability, dependability and confirmability. Credibility refers to the value of the research findings (Tracy, 2010:843). To achieve credibility, I used various data generation methods (cf. Anney, 2014:276), namely World Café, photovoice and class discussions. The adolescent participants also reflected on the research process and findings to answer the research questions. The applicability of the research findings

(transferability) was established by providing a detailed description of the research site and the adolescent participants (cf. Mandal, 2018:592).

Dependability allows other researchers to repeat a study (Ellis, 2019:111). To maintain dependability, I provided sufficient detail of the research process and kept an audit trail via documentation. Lastly, confirmability refers to the steps used to ensure that the research findings emerge from the data and not from the preferences of the researcher (Korstjens & Moser, 2018:122). To ensure that I was unbiased in the study, I used investigator triangulation and encouraged the participants to continuously reflect on the research process and findings.

3.3.5 Ethical considerations

Ethical considerations are ethical aspects that protect and respect the research participants while conducting research (Maree, 2016:44). In this study, the principles of confidentiality, informed consent, voluntary participation and beneficence were respected. To ensure confidentiality, I used pseudonyms that the participants had chosen themselves (cf. Chowdhury, 2014:39). In participatory action research, it is common for participants to want to be acknowledged for their input, but this was only done if both the learner and his or her parents consented to this in writing (Appendix F). The parents and learners were provided with information by an independent person – another teacher not involved in the study. Permission to conduct the research was granted by the Ethics Committee of the Faculty of Education of the North-West University. I also obtained permission from the Department of Basic Education, the school governing body and the principal of the primary school to conduct research at the school (Appendix F). The permission and consent letters provided relevant information so that the various parties had enough details on which to base their decision.

Furthermore, I explained to the participants that they had the right to withdraw from participating in the research without feeling apprehensive about their decision (cf. Gray, 2014:91). All the learners in my Grade 7 English class completed the activities in both Cycles One and Two, whether they wanted their work to be used in the project or not. Therefore, they all benefited from developing verbal and written English language skills, and their knowledge of the dangers associated with cannabis use increased. In addition, the participants developed several life skills, such as problem-solving skills, analytical skills and group decision-making skills, as they had to work as a project group to identify the dangers of cannabis use in order to find an appropriate solution for it within their school. As this study focused on increasing the adolescents' knowledge of the dangers of cannabis use and not on their previous cannabis-related experiences, no personal information of a sensitive nature arose. However, as I knew that some of the participants might be emotionally affected by this issue, I made

arrangements with my study supervisor, who is a registered social worker, to provide counselling to the participants if needed.

3.4 SUMMARY

In this chapter, I discussed how the selected methodological choices and research paradigm guided the study. I explained the research design and how the data had been generated by using a World Café in triangulation with photovoice and audio recording and transcribing class discussions. The two cycles in which the research had been conducted were also highlighted. Thereafter, a detailed explanation of the data analysis, the measures I had used to ensure trustworthiness and the ethical considerations I had taken into account concluded the chapter. Chapter 4 will report on the findings of Cycle One of the study.

CHAPTER FOUR: DISCUSSION OF THE FINDINGS OF CYCLE ONE – THE ADOLESCENTS’ PERCEPTIONS AND KNOWLEDGE OF THE DANGERS OF CANNABIS USE

4.1 INTRODUCTION

Chapter Three discussed the research methodology I used in the study. In this chapter, I present the research findings of Cycle One, which aimed to explore the adolescent participants’ perceptions and knowledge of the dangers of cannabis use by means of a World Café. Through this data generation method, inputs and ideas were collected in response to the following questions:

- What do you know about the effects of cannabis on young people – their mind, their body, their studies, their relationships, etc.?
- What do you think influences young people to use cannabis?
- How do you think messages about the dangers of cannabis use and about making healthy decisions should be conveyed to young people?

After that, the inputs were summarised by the hosts of each café table, as explained in Section 3.3.3.2.1 and discussed in the large group. The large group then analysed the data and discussed how cannabis prevention messages should be conveyed. Their narratives are quoted verbatim and supplemented with existing literature. The themes and sub-themes that emerged are outlined in Table 4.1.

Table 4.1: Overview of the themes and sub-themes emerging in Cycle One

Theme	Sub-theme
1. Using cannabis during adolescence can affect your entire life	
2. Adolescents use cannabis for different reasons	• Cannabis can fulfil the need for belonging • Adolescents use cannabis to cope with life stressors • Past experiences influence use • The decriminalisation of dagga use makes it seem more attractive
3. Not all peers are aware of the dangers of cannabis use	• There is a need for drug education • Adolescents need to be supported to stop using cannabis

4.2 DISCUSSION OF THE THEMES

4.2.1 Theme One: Using cannabis during adolescence can affect your entire life

The dominant narrative that emerged was that the participants viewed cannabis use as a life-altering event, as adolescents tend to be inadequately prepared to deal with it. The participants seemed convinced that the use of cannabis could limit adolescents' future.

The participating adolescents indicated that the use of cannabis during adolescence is associated with several scholastic consequences. Cannabis use could affect adolescents' concentration and educational achievement and, at worst, could culminate in school dropout.

Cannabis is going to affect their brain, causing less concentration, making them to [sic] do very bad in everything they do. [Heidi]

And with studies, like school, they might not listen in class and they don't want to listen. So, when they get older, they have, like problems, because they wouldn't be able to get a job, because they did not get good marks and because they did not care about school. When they get older, they will be very upset and they might go into the streets. Their parents can't always look after them. They will go one day. [Savanah]

They might have to get a job in their early ages. They won't get an academic grade [degree] and they will not be able to complete or want to complete school because of the use of dagga. [Alejandro]

These findings corroborate those of Chau *et al.* (2016:4), who identified a consistent relationship between cannabis use and lowered academic performance, truancy and school dropout among adolescents. Cannabis is a fat-soluble substance that distributes itself into the fatty tissue of the brain and, as result, affects adolescents' goal setting and general productivity (Liebregts *et al.*, 2015:631). Furthermore, the adolescents stated that cannabis use could cause delinquent behaviour among their peers. Their initial response was that after intoxication, adolescents might engage in risky behaviour, without careful consideration of the consequences.

It affects their life and their brain. Their brain controls their body, so it's going to affect their body, and they are going to do stuff they don't want to do. [Heidi]

An, if they use cannabis, they could do stuff they don't want to do. [Page]

These findings were similar to those of Nkansah-Amankra and Minelli (2016:131), who referred to cannabis as a gateway drug, as its use could lead to the use of other illicit drugs. As cannabis alters the

brain's reward processing (Batalla *et al.*, 2013:12), its use may encourage adolescents to seek more rewarding euphoric experiences by using harder drugs or experimenting with sex, or to stop taking part in healthy activities, such as sport, and other things they used to enjoy.

And then, it can also have bad effects on their body. It will make them, like, not want to do sports and things. [Savanah]

Some of the participants were also quite concerned about the financial consequences of adolescent cannabis use. They felt that adolescents who use it could experience financial problems as a result of using cannabis.

The use of dagga is also very expensive, so they will run out of money very fast. [Alejandro]

Although cannabis is relatively cheap in South Africa and several other countries (Leung *et al.*, 2018:403; Mahamad & Hammond, 2019: 402; Riley *et al.*, 2019:3), the literature has predicted a low income in adulthood after using cannabis during adolescence (Green *et al.*, 2017:567). Cannabis use often causes poor work commitment, which could cause financial instability (Brook *et al.*, 2013:304). In severe cases, parents or siblings often have to become hypervigilant about belongings, as some adolescents start stealing to access cannabis supplies. As with the influence of cannabis on physical activities, Ashdown-Franks *et al.* (2019:1) found that only 16,6% of 89 777 cannabis-using adolescents actively participated in sports. Adolescent cannabis users gradually lose interest and motivation to participate in such activities. The participants also acknowledged that cannabis use during adolescence had adverse effects on later pregnancies and reproductive health. One participant added that cannabis use could lead to infertility.

They get slower, and if they have a baby, it could have bad effects on the baby as well. Like the baby might have, well ... not good eyesight and won't hear things. He'll ... might be slow, might not be that smart, because of the effects of the cannabis. So, it is very bad and has bad effects on children. And they might also get addicted to it. [Savanah]

Also, when they use cannabis, it has a danger on [sic] childbirth; for one, the failure to have a child or spread addiction to a child. [Alejandro]

Corsi *et al.* (2019:145) have found that infants with prenatal exposure to cannabis are more likely to be born prematurely than babies who have not been exposed to it. More so, growth restriction caused by maternal cannabis use may cause difficulties with reasoning, attention and memory among adolescents (Schreiber & Pick, 2019:53). Cannabis use during adolescence can also cause male infertility, as it affects sperm count (Alagbonsi *et al.*, 2019:132). Heron *et al.* (2013:2136) has reported

that parental use of cannabis may increase the prevalence of adolescent cannabis use, as parents convey the message that using this substance is acceptable. However, while using cannabis during adolescence is not recommended, using cannabis is not as catastrophic as some of the participants perceived it to be. By analysing the research findings in the large group, the adolescents learnt that with peer support, their peers who use cannabis may become aware of the dangers of using this substance.

In summary, the main narrative that emerged in Theme One was that adolescent cannabis use could limit adolescents' future drastically, as it leads to problematic scholastic behaviour, delinquent behaviour, financial distress, lost opportunities to participate in sports and, lastly, significant effects on reproductive health. In the second theme, the adolescents shifted their focus to how adolescence contributes to the use of cannabis.

4.2.2 Theme Two: Adolescents use cannabis for different reasons

In Theme Two, the participating adolescents focused on how the developmental period of adolescence influenced adolescents to use cannabis. They stated that adolescents' need to fit in and social pressure contributed to the use of this substance. Moreover, they explained that past experiences could cause further cannabis use, and the decriminalisation thereof in South Africa made it seem more appealing to adolescents. They also noted that cannabis use could be beneficial for those who need it.

4.2.2.1 Cannabis can fulfil the need for belonging

It emerged from the adolescents' narratives that their peers' intense desire to belong to a group could lead to the use of cannabis. Adolescents seem to be afraid of losing friends, and as result, they engage in the use of cannabis if that is what their friends do. Furthermore, the participants mentioned that family members, gangs and parents could encourage adolescent cannabis use, but as they did not expand on this point, these responses are considered outliers.

If they are in a group who use cannabis, then they will start, uhm, saying stuff like, "You are not allowed to be in our group", or stuff like that to make you use cannabis. Then they start using cannabis to be just like them. [Page]

Maybe they [the adolescents] have friends, and they [the friends] are pushing them to do it. They [the adolescents] are the only person in the group that is not using cannabis, and they [the friends] are their only friends. They [the adolescents] don't want to lose their friends, so they start using it to keep them. [Heidi]

Research in South Africa has identified peer pressure as the most influential factor for adolescent cannabis use (Hendricks *et al.*, 2015:9). According to the social learning theory, adolescents acquire behaviour, including cannabis-related behaviour, through vicariously observing others around them (Bandura, 1971:2). Thereafter, they actively reflect upon the actions based on their peers' feedback (Bandura, 1997:79). Cannabis-using peers, especially older ones whom the adolescents tend to trust, often distribute cannabis among adolescents at social gatherings or school (Defoe *et al.*, 2019:491). Moreover, as friendships and the feeling of belonging among peers are crucial for adolescents, cannabis is often used to attain social acceptance and popularity (Jacobs & Slabbert, 2019:228). Likewise, the data revealed that adolescents struggling to cope with challenges could lead to the use of cannabis.

4.2.2.2 Adolescents use cannabis to cope with life stressors

Several participating adolescents reported that stress, anxiety and depression about adolescent-related issues could contribute to the use of cannabis among their peers. They claimed that adolescents often used cannabis to cope with emotional pain ensuing from bullying, family issues and scholastic problems.

Sometimes when they get bullied, it will make them sad and depressed and they start using cannabis. [Page]

It happens mostly when they are pressured to do something that they don't like or can't handle. People also use it when they have family problems. [Heidi]

Sometimes when they did not pass an exam, their teacher or parents could be a bit negative towards them. They can say, "If you don't get at least 70%, you will get punished." Then they use dagga. [Alejandro]

Overall, these findings corroborate the existing literature that reports that stress from environmental factors, such as bullying, family issues and low school satisfaction, affects adolescent cannabis use (Hoff *et al.*, 2010:547; Mackie *et al.*, 2013:1033; Skeer *et al.*, 2011:187). Triadic reciprocal determinism explains that adolescents' personal characteristics, such as coping moves, may also contribute to the use of cannabis (Bandura, 1978:346). The THC in cannabis tends to have a relaxing effect, and studies have shown that it can help cannabis users cope with stressful situations (Van Leeuwen *et al.*, 2011:1482) and thus reduce stress. For some South African adolescents, their beliefs with regard to using cannabis as a coping mechanism can result in further use (Patrick *et al.*, 2010:464).

4.2.2.3 Past experiences influence use

In this sub-theme of Theme Two, the participants noted that adolescents' previous cannabis use could enable future cannabis-related behaviour. Cannabis rewires the brain and spreads addiction among adolescents.

Sometimes if they get addicted to cannabis, they can go to rehab. Sometimes it is not that easy to get off cannabis if they can't go to rehab. Like their brain says, "just one more time". Just once, just once and then, after a while, it just keeps coming and coming and coming. [Page]

And this deeper addiction just causes more and more use. They cannot go to rehab, and this will be very bad. Their mind will start seeing things. And they will say things that you would normally not say. [Alejandro]

Uhm, their addiction. If they are already addicted to dagga, what would also influence them is, they would just want to do it one last time. They may be not be addicted to it for years or months, but just one day, they may decide that if they just do it one more time, they wouldn't do it again, and their addiction could start again. [Alejandro]

We could maybe call them "cannabis-holics". [Savanah]

Similarly, the social learning theory explains that adolescents are more likely to repeat past actions when the outcomes are positive and avoid behaviour when adverse effects occur (Bandura, 1971:2). Adolescents who use cannabis for relaxation, to self-medicate for depression or to boost their confidence tend to repeat it, as the cannabis behaviour results in a positive emotional state (Bandura, 1971:2). Moreover, a recent study done by Ekendahl *et al.* (2020:65) has found that adolescents tend to have a higher relapse rate after cannabis treatment, as their bodies are immature and their brains are still developing. While cannabis use is not really addictive in and of itself, there is a danger that adolescents might seek more highs, often from harder drugs (Taylor *et al.*, 2017:764). Apart from past cannabis experiences that may contribute to the use of cannabis, the participating adolescents also shared that the recent decriminalisation of cannabis use in South Africa could motivate their peers to engage in it.

4.2.2.4 The decriminalisation of dagga use makes it seem more attractive

The impact of the recent decriminalisation of cannabis use in South Africa on adolescents' use of this substance was also noted in the discussions with the participants. The participants shared their feeling that it seemed to permit adolescents to experiment with cannabis.

Uhm, the law says that you can use it, but not grow it. But, with this law, somebody will use it just not to obey the law. They would say, "I don't care about what anybody says; I will use it just because I can." [Alejandro]

Basically, the law gives them permission to smoke it. [Heidi]

Because it was illegal and now it is legal, people might want to try it. You know, because they can. Now, they want to smoke it, and then it gets addictive, and now they have problems. [Savanah]

When it became legal, people were like, "I am just going to use it once to see how it is." Then they got addicted to it and can never stop. [Heidi]

The South African literature shows that the decriminalisation of cannabis use may contribute to increased cannabis use among adolescents (Mokwena, 2019:1). Adolescents often see the decriminalisation of a drug as an indication that the drug is safe to use (Barrett & Bradley, 2016:645). In all likelihood, this has also led the participating adolescents in the study to think that cannabis use might be beneficial. They were adamant that cannabis could be used as a medical treatment.

But dagga can have good effects. There is dagga oil, and it has good effects for people that the doctor has given it to them because they need it. But if you don't need it, you should rather not have it. So, I personally think, and all these people here also think that we should maybe make dagga legal for medical places and illegal for all these other things, like smoking, and drinking and also baking with it. So, those are the good and bad effects of dagga. [Savanah]

Cannabis is used as medicine; so you shouldn't use as anything else besides medicine. You can only use it if you have chronic diseases or if it is deadly and the disease can kill you. [Kamija]

Cannabis use can be healthy, but only if approved forms are used with low-dose THC of 0,04 mg/kg (Madras, 2019:215). However, since many South African adolescents use it exclusively for recreational

purposes, there is a need to spread awareness about the dangers of this substance (Manu *et al.*, 2017:1).

To conclude Theme Two, the adolescents felt that peer pressure and social pressures could lead to adolescents using cannabis. They also focused on how adolescents' previous cannabis experimentation and the decriminalisation of dagga in South Africa tended to promote the use of this substance. Nonetheless, they highlighted that cannabis use could be healthy, but solely when it was prescribed by a medical doctor. In the next theme, they acknowledged that drug education was needed in South Africa to help adolescents make informed decisions about cannabis use.

4.2.3 Theme Three: Not all peers are aware of the dangers

Theme Three revolved around adolescents' need to be educated about the dangers of cannabis use, as many individuals in their surroundings portray cannabis as an acceptable substance to use. Several adolescents suggested that they should help spread accurate information about this substance and convey basic, yet sensible messages to their peers.

4.2.3.1 There is a need for drug education

In the first sub-theme of Theme Three, the adolescents' narratives portrayed that adolescents were exposed to several environmental factors that could affect their cannabis-related behaviour and decisions.

People who use it, like maybe even make [a] business out of it, they portray it as something very good, but it is not the best decision to make to use cannabis. [Kamija]

Cannabis shouldn't be positively conveyed. It is not as great as people say it is or as people say it is the best thing ever. [Kamija]

Dagga is not so great as people say it is. [Dean]

Therefore, drug education is needed to help adolescents make sensible decisions about cannabis use, should they feel tempted to use it.

I think it is needed to tell children who are not yet suffering of [sic] the addiction of dagga to not use it before their whole life is ruined. They need to change and change quickly where this change is needed and this is a distract [sic] change. [Alejandro]

Likewise, Bandura (1978:344) explains that adolescents' behaviour tends to be shaped by their surroundings, as they observe others in their environment and receive reinforcement to guide their

actions and thoughts. According to Kisaka (2019:82), peers, the media, parents and community members often portray positive cannabis experiences, which may alter adolescents' cannabis-related expectations. Yet, although research has shown that school-based education can reduce the prevalence of adolescent cannabis use (Puri, 2020:35), the adolescent participants felt that educators often did not understand how to effectively support adolescent cannabis users.

Sometimes when teachers want to help someone, or they think they are helping that person, they are accidentally exposing them in public. But what they are actually doing is killing them, because if they expose someone, they can get embarrassed or could get laughed at and stuff. [Kamija]

Adolescents often feel judged by teachers or health professionals when they seek help and are worried about their negative responses (Berridge *et al.*, 2018:91). Peer educators, on the other hand, are more approachable than adults. They can spread awareness about the dangers of cannabis use and support adolescent cannabis users, as they have expert knowledge gained from lived experiences (Cammarota, 2017:197). In the last sub-theme, the adolescents participating in this study acknowledged their own agency in the cannabis issue.

4.2.3.2 Adolescents need to be supported to stop using cannabis

The data on this sub-theme revealed that the adolescents were aware that they, as adolescents, could support their peers in the cessation of cannabis use. The adolescents agreed upon the use of a peer education group as well as cannabis prevention messages for this purpose.

We could create a group that tell[s] people about the dangers of dagga and about everything that could happen if they use it. [Alejandro]

And when they start using it and eating it, we could also start support groups. [Kamija]

We can tell our family and friends to help us convince others. The more people who spreads [sic] this message, the better. The more lives would be changed. If we tell one person and they tell another person and they tell another and another, you are at least looking at a few thousand. [Alejandro]

Most likely the parents and us. We can help. If we spread the message, other people might agree. [Alejandro]

In addition, one participant pointed out that adults who had stopped their use of cannabis should be involved to disseminate messages among adolescents.

You shouldn't use dagga or cannabis if you are underage, and we should also ask parents or the family who already have this addiction to tell us about what they are experiencing. This could cause others not to use dagga. [Alejandro]

While adolescents often do not listen when adults tell them not to do something, positive peer pressure could discourage the use of cannabis (MacArthur *et al.*, 2016:391). The Soul Buddiez Club programme is a well-known South African peer education programme (Schmid *et al.*, 2011:274) that uses positive peer pressure to promote four sources of self-efficacy, namely mastery experiences, vicarious learning, performance feedback and positive emotional states (Bandura, 1997:79). Adolescents practise and master leadership skills and skills, which benefit themselves as well as their whole community (mastery experiences) (Vance, 2018:965). Peer educators model healthy behaviour among their peers and shape their health-related behaviour (vicarious learning) (Bandura, 1971:2), including their use of cannabis. Schools who implement peer education often help adolescents make informed decisions through positive feedback and support from their peers (Vance, 2018:981). Lastly, prevention messages on the dangers of cannabis use can be delivered during normal interaction, where adolescents are less likely to feel criticised by their peers (positive emotional states).

In conclusion, Theme Three presented and discussed the perceptions of the participating adolescents about the need for drug education among their peers to increase their knowledge about the dangers of cannabis use. The participating adolescents felt that they too could address this issue in their community, which showed their willingness for agency with regard to this social issue. They decided to act as peer educators and convey messages to their peers to show them that they were in control of their lives and they had the potential to stop. In the section that follows, I discuss how the peer educators turned the themes into cannabis-related prevention methods.

4.3 TURNING THE THEMES INTO CANNABIS PREVENTION STRATEGIES

The adolescents' narratives revealed that there was a need for cannabis prevention messages in their school. Based on the research findings, they thought that cannabis prevention needed to be approached in an adolescent-friendly way. To assist the adolescents in turning the themes into prevention strategies, we held a classroom discussion about how cannabis prevention messages should be conveyed. As the social learning theory explains that adolescents' behaviour is learnt and shaped by their environment (Bandura, 1978:347), the participants used Kirby's (2004:8) logic model to determine the strategies to use in their prevention education. The logic model is a framework that assists participants, researchers, policymakers and even communities in designing and implementing prevention programmes that promote healthy behaviour among adolescents (Kirby, 2004:1). It helped

the adolescents in this study to create an environment for cannabis prevention education in a youth-friendly way with the aim of educating their peers to make healthy decisions about cannabis use. Moreover, the logic model helped them to identify a pathway between the health goal and the intervention (cf. Kirby, 2004:8). The logic model entails four steps and is read clockwise, but was developed from right to left (see Table 4.2)

During Step One, the adolescents established a health goal (first column), which was to assist their peers in making informed choices about cannabis use. Thereafter, they took each theme that had emerged in Cycle One to identify behaviour, perceptions and knowledge that would need to be altered to reduce the prevalence of adolescent cannabis use (second column). During Step Three, they determined the outcomes that were needed to be able to spread awareness about the dangers of this substance (third column). They were also aware that they had to develop themselves to support those adolescents who used cannabis. The last column presents the intervention activities they chose to use to reach the health goal. As they were inexperienced in the methodology used in this study, I assisted them with a visual map to indicate what to do next.

Table 4.2: Logic model used in Cycle One of the study (adapted from Kirby, 2004:8)

Step 1: Decide on a HEALTH GOAL (assist peers in making informed choices about cannabis use). Step 2: Identify INDIVIDUAL BEHAVIOURS that need to be modified to reach the health goal (improve knowledge about cannabis not being harmless; encourage adolescents to make healthy choices). Step 3: Identify DETERMINANTS for the selected behaviour. Step 4: Develop INTERVENTION ACTIVITIES to alter the selected causes.						
Intervention activities	affect	Determinants (risk and protective factors)	that affects	Individual behaviours	affect	Health-related goal
- Develop prevention messages - Use photovoice to create posters and an educational booklet to deliver messages - Create and share cannabis preventive	that aim(s) to	- improve knowledge about the consequences of cannabis use - create a positive attitude towards achieving goals in life - encourage positive norms about	that leads to	- increased awareness about the dangers of cannabis use (Themes 1 and 2) - awareness of healthy options to cope with stress (Theme 2) - the ability to make healthy	that, in turn, increases the likelihood of	adolescents being able to make and educate others about informed healthy choices about cannabis use

messages on posters and in booklet		healthy decisions • encourage them to support peers who want help		choices (Theme 3) • willingness to educate and support peers to also make healthy choices		
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In Chapter Five, I will discuss the development of the messages in Cycle Two, the implementation of the strategies and the evaluation of the intervention strategies.

4.4 PERSONAL REFLECTION ON CYCLE ONE

By reflecting on the research findings of this cycle with the adolescent participants, I learnt that most of the adolescents who participated in the study were aware of the dangers of cannabis use and were able to effectively identify the influences that contributed to using cannabis. They gained their health-related knowledge on cannabis use through the subject life orientation (Department of Education, 2012:9), which was confined to information given by teachers.

We learnt about dagga and other drugs from our teachers in life orientation. Our teachers told us about the consequences of using cannabis, like it could affect your lungs and stuff. They also speak about what influences people to use it, like depression.
[Alejandro]

They also usually show us one or two photos of how the cannabis plant and its flower looks [sic] like. And the logo. [Kamija]

Notwithstanding the reported success of skills programmes in the prevention of adolescent cannabis use (Srikongphlee *et al.*, 2018:88), several participants stated that drug education often did not influence adolescents to stop their use of cannabis. Some teachers focus on the negative points of cannabis use, rather than encouraging learners to critically think about what they could do with their acquired knowledge.

Our teachers only teach us about how dangerous cannabis use is and that we should not use it. It's dumb. [Shauna]

We only write tests about it. I don't like learning for tests. [Kea]

Research has confirmed that many South African teachers tend to struggle with implementing drug education (Pillay, 2012:174). According to Jacobs (2017:217), poorly trained educators tend to lack enthusiasm when it comes to teaching drug education and seldom use interactive methods, such as

classroom discussions, case studies, educational games or questioning during cannabis-related lessons. Other teachers may feel that it has no place in the classroom, due to personal views or even trauma caused by relatives who have experimented with it. To the contrary, the adolescents verbalised that participation in this study had helped them to talk about cannabis, often a sensitive topic for many adolescents.

Teacher, we could speak about it freely and not be judged about it. [Edward]

Nobody really talks about dagga, but we could. [Hank]

Accordingly, Carson (2011:10) explains that a World Café data collection strategy tends to promote a learning environment where adolescents can discuss, share and address sensitive topics, such as adolescent cannabis use. Although the participating adolescents found it enjoyable to interact with one another, as well as with me, their teacher, they felt the allocated time of 12 minutes per question was too long.

After a while, I didn't know what to say anymore. [DJ]

To counter the adolescents' loss of interest during the World Café discussion, I plan to shorten the allocated time per question when using this method in my classroom. Furthermore, as a second-language English educator, I came to realise that the use of a World Café discussion was a more effective method to develop adolescents' English language skills than any other teaching methods I usually used. I assessed the adolescents' verbal and written skills, and they scored much higher than usual, most likely because they were not obliged to speak in front of the whole group, where learners tend to be penalised if they were shy, and because they were able to gain multiple perspectives from their peers on this topic (cf. Gill *et al.*, 2016:98). I used these reflections to help me guide the adolescents in Cycle Two of this study.

4.5 SUMMARY

This chapter presented the research findings of Cycle One in response to the first secondary question: "What perceptions and knowledge do adolescents have about the dangers of cannabis use?" The adolescents identified the following themes: "using cannabis during adolescence can affect your entire life"; "adolescents use cannabis for different reasons"; and "not all peers are aware of the dangers". These themes indicated their perceptions and knowledge of the dangers of adolescent cannabis use. Furthermore, an explanation on how the logic model was used to develop prevention strategies was provided. In Chapter Five, I will discuss the findings of the themes aligned with the two secondary questions.

CHAPTER FIVE: DISCUSSION OF THE FINDINGS OF CYCLE TWO – DEVELOPMENT, IMPLEMENTATION AND EVALUATION OF THE PEER EDUCATORS’ CANNABIS PREVENTION STRATEGIES

5.1 INTRODUCTION

In Chapter Four, I presented the research findings of Cycle One by discussing the themes that emerged from a World Café discussion. The learning from this cycle was used to guide the action in Cycle Two. In this chapter, I will discuss the research findings of Cycle Two, in which I explored what strategies the adolescents could develop and implement to educate their peers about the dangers of cannabis use to help them make informed decisions. These findings were aligned with the second secondary question of this study. Moreover, I will evaluate the impact of intervention strategies on both the participating adolescents and their peers.

In Cycle One, the participants learnt that cannabis use could ruin adolescents’ future. Cannabis use can be associated with several scholastic consequences, social issues and problems, and may harm adolescents’ reproductive health too. Furthermore, the participants stated that their peers tended to experiment with dagga due to peer pressure, social pressure, previous cannabis experimentation and the recent decriminalisation of cannabis use in South Africa. The participating adolescents emphasised that cannabis use could be beneficial if used for medical reasons, but as many South African adolescents used it for recreational purposes, they felt that drug education was needed. Therefore, they decided to develop cannabis prevention messages to explain the potential dangers of cannabis use during adolescence and encourage their Grade 5 peers to make healthy decisions. Table 5.1 outlines the cannabis prevention messages the adolescents derived from the themes in Cycle One.

Table 5.1: Prevention messages derived from themes in Cycle One

Themes in Cycle One	Prevention messages
1. Using cannabis during adolescence can affect your entire life	• Cannabis use can destroy your future dreams
2. Adolescents use cannabis for different reasons	• Make your own decisions, educate yourself, get help, help others • Engage in healthy activities
3. Not all peers are aware of the dangers	• Don’t judge those who use; educate them

Thereafter, the adolescents chose several prevention strategies they considered appropriate to convey their prevention messages. Table 5.2 summarises the prevention strategies they implemented.

Table 5.2: Summary of the prevention strategies the adolescents implemented in Cycle Two

Prevention strategy	Purpose	Process	Data documentation
Photovoice	To create visual artefacts that would address the messages decided on in Cycle One: • Cannabis use can destroy your future dreams • Make your own decisions, educate yourself, get help, help others • Engage in healthy activities • Don't judge those who use; educate them	The adolescents took photographs with their mobile phones and wrote narratives to convey messages about the following: the dangers of adolescent cannabis use; making informed decisions; not judging adolescent cannabis users; and assisting other adolescents in need	Photograph artefacts and narratives Recorded and transcribed discussions (extract in Appendix A)
Educational booklet		The adolescents developed an educational booklet with the photographs and their narratives to convey the messages	Educational booklet (example in Appendix B)
Presentation of messages to peers	To disseminate the messages about the dangers of cannabis use to peers	Presentation at the school to Grade 5 learners	Discussion with Grade 5 learners was recorded and transcribed (extract in Appendix C)
Discussions with the participants	To determine what influence participation in the study had on the participants	Discussions with the adolescent participants	Discussions were recorded and transcribed (extract in Appendix D)
Written reflection of parents	To reveal whether the booklet helped them explain the dangers of cannabis use to their children	The participating adolescents' parents were asked to respond to the following question: "Did this booklet help you discuss this topic with your child? Explain why/why not."	Parents' responses were analysed (examples in Appendix E)

In the following section, I present and critically discuss the research findings of Cycle Two, generated from the adolescents' prevention activities. The narratives of the adolescents and the Grade 5 learners and the written responses of the participating adolescents' parents are quoted verbatim and supplemented with existing literature. I refer to the learners as L# and to the parents as P#. The themes and sub-themes that emerged are outlined in Table 5.3.

Table 5.3: Overview of the themes and sub-themes emerging in Cycle Two

Theme	Sub-theme
1. The participating adolescents' intentions with their messages	• Dagga is an everyday reality, and therefore, we need to ensure that our peers know about its dangers • We need to make the language simple and connected to their lives so that it is easy for them to relate to • They need support in making informed decisions, and if they do use cannabis, they should not pressure others to use it • We must change their attitudes towards those who used dagga – support and not judge
2. How taking part in this project influenced the participants	• Increased awareness of agency • Enhanced listening skills and empathy • Improved presentation skills, communication skills and confidence • Enhanced creativity, problem-solving skills and teamwork
3. How the booklet and presentations influenced the Grade 5 learners and the participating adolescents' parents	• Empowerment of knowledge about the dangers of cannabis use • Changed intention to use • Increased awareness of agency and empathy towards cannabis-using peers • Enhanced communication among parents and adolescents about the dangers of cannabis use

5.2 PRESENTATION AND DISCUSSION OF THE FINDINGS

5.2.1 Theme One: The participating adolescents' intentions with their messages

In Theme One, the participating adolescents revealed their thinking with regard to their prevention messages. They identified the cannabis-related prevention needs of their peers and pointed out that adolescent-friendly and context-appropriate language should be used to spread awareness about the

dangers of cannabis among their peers. Moreover, the participants acknowledged their responsibility in supporting their peers to make informed decisions and noted that if their peers did use cannabis, they should advise these peers not to pressure others into using it too. Lastly, they aimed to change their peers' attitudes towards those adolescents who experimented with the substance.

5.2.1.1 Dagga is an everyday reality, and therefore, we need to ensure that our peers know about its dangers

During one of our classroom discussions, the adolescents indicated that their peers were exposed to several environmental factors that could affect their cannabis-related decisions. Observing older cannabis users in their neighbourhood may change their peers' perceptions of the health risks associated with cannabis use.

We should tell them about the truth of how dangerous dagga really is. Like, I feel that many of us see people using it in our town. The other day, my brother and I went to play in the "parkie" [the neighbourhood playground], and we saw an older boy smoking dagga. After seeing it, some may think it is safe. [Shauna]

In addition, the participants emphasised that their peers might not be aware of the fact that dagga could destroy their dreams. They added that they, as peer educators, should act on this by spreading awareness about the academic and social dangers of cannabis use.

I think we should tell them that, uhm, after using cannabis, they will experience disappointment and be sad. Because smoking cannabis could cause your future to slip through your hands, because you are going to lose your concentration, fail grades and drop out of school. We need to help them think about their future. Many of our friends don't know that. [Kamija]

They could also lose their interest in sports. Sports are very important, because it teaches us how to be on time, how to make friends and how to have a healthy but still good time. They need to know this. [Savanah]

We should tell them that it is a gateway drug. They may start with cannabis and move to other stuff, like "drank" [alcohol] and then you can go to heroine and stuff. [Heidi]

And that dagga is expensive. We should tell them that you could lose your future. You may start stealing. Uhm, after stealing, they could go to jail. We should tell them that. [Alejandro]

The adolescents' visual and written artefacts grouped under Message One convey the academic and social consequences of cannabis use (see Figure 5.1).

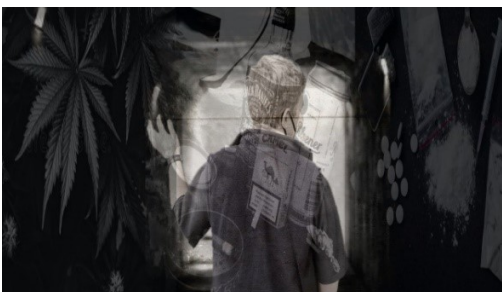
	This picture is a reminder that using dagga now could cause your future to slip through your fingers. When you start using dagga, you are literally throwing away some opportunities. Like, you might find it hard to concentrate in class, because dagga has a HUGE effect on your brain. It can lower your IQ by 8 points! Eventually you might even drop out of school. You might have to get a job very early in life, without a matric or college degree. [Kamija]
	This dude has lost his interest in sports after using cannabis. Also, dagga has robbed him of valuable lessons like how not to be late, making friends and how to have an awe [sic] time. This might cause him to think that he is uncool (also known as self-esteem). And honestly, he is not even caring about my concerns, since his box-like face looks shocked that I am even writing about his actions. He just wants his weed! [Savanah]
	Once you start using cannabis, you could end up asking questions about if the use of stronger drugs also could get you hyped up. I mean, your body could build up tolerance to dagga and you might want something more exciting than dagga. Using cannabis is like willingly walking through the "I have given up gate", but you have the power to control it! [Heidi]
	I see a boy who has lost his motivation to become a hardworking human being, because of smoking weed. He made a sign that says that he is looking for work, but actually, he is just looking for cash to get his next cannabis fix. At night when there's fewer people to give him money, he might like shoplift or mug people and eventually end up in the slammer. [Alejandro]

Figure 5.1: Visual and written narratives the adolescents created to convey the dangers of dagga use

Adolescents possess expert knowledge of the social issues in their community (Ozer, 2010:176), and photovoice affords them the opportunity to make their concerns concrete (Williams *et al.*, 2020:213).

As such, this study enabled the participants to voice their concerns about the academic and behavioural consequences associated with adolescent cannabis use through photography. The use of photovoice as a data generation tool also made the research process an enjoyable experience (cf. Vindrola-Padros *et al.*, 2016:637), despite the seriousness of the social issue under discussion. It involved the adolescents' social and emotional learning (cf. Carey *et al.*, 2020:1). Furthermore, while using phrases such as "how to have an awe time" (a fun time) and "end up in the slammer" (to go to prison) to accompany their visual artefacts, the participants also became aware of how to present their prevention messages in language used by their peers. These phrases, while grammatically incorrect or slang, are how the adolescents in this community speak to one another.

5.2.1.2 We need to make the language simple and connected to their lives so that it is easy for them to relate to

In this sub-theme, the adolescents focused on how they wished to convey their prevention messages. They argued that THC, the main psychoactive ingredient in cannabis, should be simplified and compared to the ingredients used in baking a cake, as it speaks to their peers' context.

I understand THC as the ingredients in cannabis. Maybe we could tell them that THC in dagga is like the eggs and flour in a cake. Everybody likes cake. And we should also tell them how people use it. Some people put it on salads and in sweets. This could maybe show them not to take lollipops from strangers. [Edward]

Also noted in one of the adolescents' written artefacts are questions rather than answers, as seen in Figure 5.2.

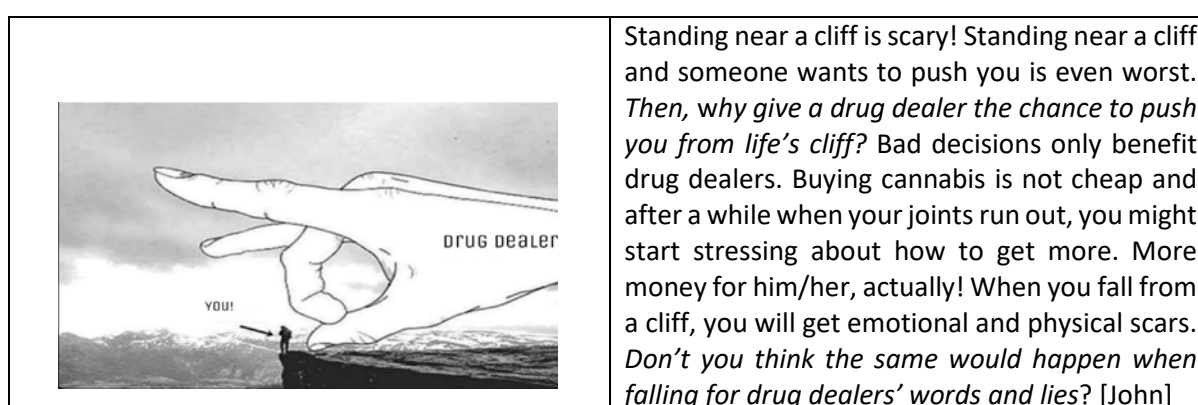


Figure 5.2: It's no lie, dealers would say anything for you to buy

The research of Guerrero *et al.* (2020:2) confirms the value of using adolescent-friendly language in prevention messages. Adolescents relate more to health-related information when simple and context-appropriate language is used (Meehan, 2017:85). Also, questions encourage them to think

critically about their personal experiences, instead of admonishing them and warning them not to experiment with substances, as many life orientation educators tend to do (Meehan, 2017:85). Furthermore, one of the participants stated that as they possessed the necessary cannabis-related knowledge and prevention skills gained from the study, they should protect their peers from the use of cannabis by telling them about its dangers. In addition, she noted that although adolescents often did not listen when teachers informed them about the dangers of substances, the participants thought that they were in a better position to discourage the use of this substance among their peers.

We also learnt about the dangers and took photos to show the dangers. I think we should tell them about how dangerous it is. Last time, we said that learners do not always listen to teachers and that they maybe will listen to us more. [Heidi]

The adolescents' skills and knowledge gained from participation in this study will be detailed in Theme Two, but it is noteworthy that they perceived themselves as resources of cannabis-related information who could effectively influence their peers not to experiment with this substance. Accordingly, a study done by Ghasemi *et al.* (2019:9139) has found that prevention messages delivered by peer educators tend to influence adolescents' health-related decisions more than those presented by authority figures or teachers, as adolescents identify with peer educators. Moreover, peer-led prevention messages can enable adolescents to make informed choices about their health-related behaviour (Frantz, 2015:2) and help those adolescents who use cannabis not to pressure others to use it.

5.2.1.3 They need support in making informed decisions, and if they do use cannabis, they should not pressure others to use it

The research findings also revealed that the participating adolescents aimed to assist their peers to make informed decisions about cannabis use. Adolescents need to think through the consequences of using cannabis before experimenting with it. The participating adolescents pointed out that they should rather choose healthy alternatives, such as sport, to overcome their boredom and help them cope with stressful situations, instead of using cannabis.

We also spoke about the past experience of dagga and we should tell them about it. People think that dagga is nice and fun, and they try to do it again and again, but ja, they should learn how to make good decisions and not to try it even one time [once]. Dagga is bad. [Dean]

They should know that they could do sports if they are stressed out or bored. Sports are very important, because it could take all their thoughts away from using dagga. [Savanah]

Furthermore, one of the participants stated that if their peers did use cannabis, they, as peer educators, should advise them not to pressure others to experiment with it, as all adolescents need to make their own decisions.

That we should tell them that if they use dagga, they should not tell others to do it. Two wrongs do not make a right. [Page]

Message Two was developed by the adolescents to encourage their primary school peers to make informed decisions about dagga use, while also conveying the importance of not pressuring others to use cannabis (see Figure 5.3).

	Family fights suck, yes! But don't depend on dagga to make it all better, it might just make it worst [sic]. Now, your parents might start fighting over you. Regrets about using cannabis could follow you like a Roman Spider at night, yuck!! It's much easier to stay away from cannabis than to get off it! <i>I know you hurt, but is dagga REALLY worth the GAGGA?</i> [Hank]
	Tell me why do you want to use cannabis? Are you stressed? Or are you sad? Life is tough. But, living life while high is even worse. <i>Then, why use cannabis if you could rather just do sports?</i> Making bad cannabis decisions will not make you less stressed or sad. But stretching, playing rugby and playing netball will! [Dean]
	Have a puff of dagga", You might say to a friend "It's healthy, an herb and non-addictive- use it" you add, so instructive. BUT Exposing a peep to weed, Makes your character very weak It could ruin your future sleep In a single heartbeat. So, take it from me, Just leave non-cannabis users to be! [Page]

Figure 5.3: Visual and written narratives the adolescents developed to deliver Message Two

The impact of the adolescents' prevention messages on their Grade 5 peers will be discussed in Theme Three. However, Demirezen *et al.* (2019:376) has found that adolescents who receive support from

their peers on how to critically reflect on the consequences of their behaviour before acting are more likely to develop self-efficacy. In turn, adolescents with self-efficacy are less likely to use cannabis (D'Amico *et al.*, 2018:786). Similarly, engagement in sports can enable adolescents to adopt healthy behaviour, instead of turning to drugs to fill their time or amuse themselves. Sports often develop decision-making skills, problem-solving skills and assertiveness among adolescents (Cope *et al.*, 2017:792). Research has shown that many South African adolescents start using substances due to their intense desire to fit in with their peers (Hendricks *et al.*, 2015:9), but peer educators are in the position to change the culture in the school to one where drugs are not seen as “cool”. The adolescents also deemed it necessary to change their peers’ judgemental attitudes towards those adolescents who did use cannabis.

5.2.1.4 We must change their attitudes towards those who used dagga – support and not judge

In the last sub-theme of Theme One, the adolescents acknowledged their responsibility in fostering non-judgemental attitudes among their peers towards those adolescents who used cannabis. Furthermore, they intended to tell their peers to support adolescent cannabis users by spreading awareness about the dangers thereof. In conclusion, they identified the need to provide additional contact information of rehabilitation centres among their peers.

I feel that like, if their brother smokes dagga and their mom start[s] to freak out, we should tell them that they should help their brother. He can't just call him a “dagga-roker” [cannabis smoker]. [Shaun]

Uhm, I also think we should tell them not to judge their brother, because anything could happen in his life. We don't always understand what is happening in other people's lives. We should also tell them that he should tell his brother about the dangers. Maybe we could give extra names of rehabs from the internet also. Then, they could know who to call for help. [Hank]

Message Three was developed by the adolescents to encourage their peers not to judge adolescent cannabis users but educate them instead. The participants supported their presentation of this cannabis prevention message with Figure 5.4.

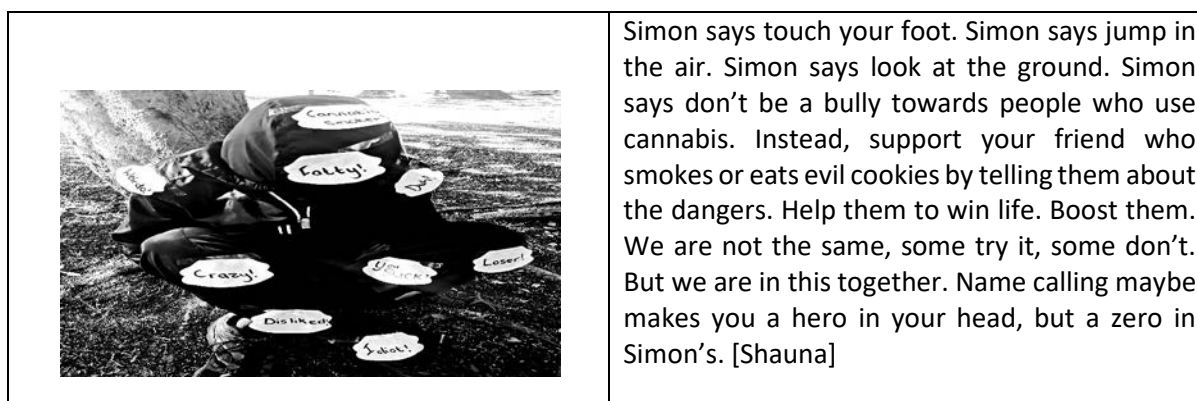


Figure 5.4: A visual and written narrative developed by one of the adolescents to support Message Three

Peer education is a prevention approach with much value. While adolescents are raising awareness about the dangers of social issues, they can also recommend trained authority figures who are capable to deal with harmful and often traumatic experiences (Lubman *et al.*, 2016:398), such as cannabis use. Similarly, the participants involved in the study were able to provide their peers with contact information of treatment programmes, if needed. Furthermore, their use of a well-known game, “Simon says”, tempered the potential painful emotions that might arise when adolescent cannabis users were stigmatised.

To conclude, Theme One focused on what the adolescents intended to achieve with their prevention messages. As their peers were exposed to cannabis in their community, the adolescents deemed it necessary to spread awareness of the social and academic dangers of this substance at their school. Furthermore, they noted that simple and context-appropriate language should be used while conveying their prevention messages, so that it would be easy for their peers to relate to. They also acknowledged their responsibility to help their peers to make sensible choices about cannabis use and to advise those adolescents who used it not to influence others to use it too. To conclude, they aimed to change the attitudes of their Grade 5 peers towards adolescent cannabis users. In the second theme, I will focus on the impact of the development of the cannabis prevention messages on the participating adolescents.

5.2.2 Theme Two: How taking part in this project influenced the participants

While reflecting on what the participation in this project had meant, the participants stated that it had increased their knowledge about the dangers of cannabis use, which had made them more aware that they, as peer educators, should voice their concerns about this social issue at their school. The participants also noted that this project had helped them to develop listening skills and empathy.

Furthermore, they acknowledged that the cannabis prevention study had increased their presentation skills and communication skills, which had had a significant effect on their confidence. They also enjoyed this form of learning English and they wished to use it to learn about other life orientation topics. Moreover, it increased their creativity and problem-solving skills and helped them to develop teamwork skills.

5.2.2.1 Increased awareness of agency

The participating adolescents indicated that the study had increased their knowledge about the dangers of cannabis use, which, in turn, had increased their sense of agency and motivation to make others aware of those dangers.

I think this study gave me enough knowledge to know that I shouldn't use cannabis. But I was part of this project and many other learners were not, so I feel that it is my responsibility to tell them about the dangers of dagga use. [Edward]

We learnt about the mental, social and financial dangers of dagga use, and actually a lot more. Cannabis is a dangerous substance. And I know now that we should protect others by telling them about the dangers of dagga use. [Page]

We learnt a lot about cannabis and that we should share to [sic] others who use it or to those who want to use it how dangerous its use could be. [Savanah]

These findings align with those of Ghasemi *et al.* (2019:9147), who report that participation in peer-led prevention programmes tends to increase adolescents' self-efficacy. Adolescents with self-efficacy can actively organise their actions to attain a specific performance (Bandura, 1997:79). Throughout this participatory action research project, the adolescents reflected on the cannabis-related information and learnt from one another through dialogue. This style of learning encouraged them to believe that they were competent to share their knowledge to assist their peers in making informed choices about cannabis use. Their increased self-efficacy (Bandura, 1997:7) in the ability to educate their peers even encouraged two of the participants to become willing to spread awareness about the dangers of this substance in high school, where peer pressure might be more intense.

Let's just think about our area, like uhm, even our plaza, there are people standing their selling cannabis and other drugs. We have to share our knowledge about the dangers of dagga with others, so that they don't get stuck using it. Also, I do not know what high school holds. But I think there will be a lot of pressure on us to try drugs; maybe we should even try to tell others about this next year. [Kamija]

I would also like do[ing] this in high school. High school people need to know about the dangers of cannabis. My mom has warned me about how high school learners might bully me into doing drugs, smoking and drinking because they think it is cool. When I get the opportunity to help someone, I will inform them and try to help them, because they need to be aware of it and all the bad things of cannabis. [Alejandro]

Although it is beyond the scope of this study to determine whether this cannabis prevention project has reduced the prevalence of adolescent cannabis use in the adolescents' community, Aguttu *et al.* (2018:79) have found that schools that implement peer education often report less substance use among their learners than schools that do not use this prevention approach. Peer educators tend to positively influence their peers' health-related behaviour long after a research project has ended (Frantz, 2015:5), which portrays the sustainability and cost-effectiveness of this prevention approach. Likewise, the data revealed that while working as a group, the participants had learnt to listen to one another; in other words, the knowledge gained through the project helped them to empathise, rather than judge (Zachariah *et al.*, 2018:462).

5.2.2.2 Enhanced listening skills and empathy

In the second sub-theme of Theme Two, the participants explained that the knowledge gained through this research had made them aware that some adolescents might rely on cannabis as a coping mechanism. Furthermore, they stated that those adolescents should be listened to, rather than judged.

Well, we learnt we must listen to why they want to try cannabis. Like, I know many of my friends have family problems, which make them depressed. We cannot judge them. We could also experience pain in our lives. But we could distract them from using it. Like, we could tell them to go to a certain place to ride their bike, instead of smoking cannabis. This could help them, and even me, to get fit and lower stress levels. [Savanah]

Yes, if they maybe tell us that they want to try dagga, because they are stressed, we could tell them, "Okay, I know you are worried, but instead of using cannabis, let's try sports or do whatever else, but not cannabis." [Alejandro]

Peer education often improves adolescents' listening skills and empathy, as it provides opportunities to observe one another modelling supportive behaviour (Cook *et al.*, 2020:36). These skills were also conveyed in the participating adolescents' visual and written artefacts (see Figure 5.5). Through poetry, an adolescent-friendly way of communication, they were able to counter judgemental

attitudes towards drug use. They could also advise their peers to seek support from them, as peer educators, since they were able to understand what their peers were going through, as their own experiences were likely to be similar.

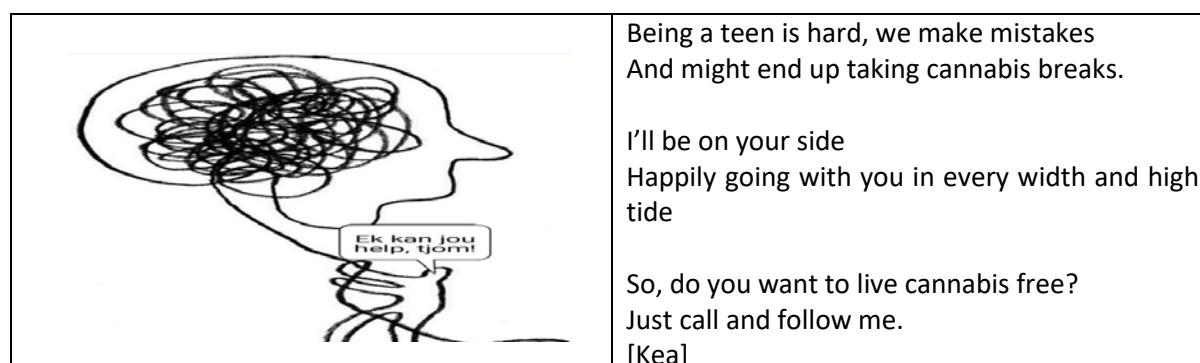


Figure 5.5: Living pot free is for me!

In my picture I have a person who is only thinking about cannabis after using it [the head]. Then, there is another person who wants to help him get his life on track [the human-like figure pulling on the string]. He is literally trying to pull his mind away from not thinking about cannabis, and saying that he can help him, like we can and should.

[Kea]

Acceptance, while still educating adolescent drug-users about the dangers, is crucial. Stigma from peers, parents, educators or even community members could result in low self-esteem among adolescents (Matthews *et al.*, 2017:276). Moreover, low self-esteem could give rise to more frequent use of cannabis (Dugas *et al.*, 2019:329) or using other illicit drugs. Relatedly, Borges *et al.* (2017:1) have found that adolescents who do not get support on how to stop the use of substances often even resort to self-harm. In addition, the adolescents noted that the study had enhanced their presentation skills and assertiveness, and consequently, this led them to feeling more secure about themselves (cf. Karaca *et al.*, 2018:84) and their ability to protect themselves from the use of cannabis in the following year.

5.2.2.3 Enhanced presentation skills, communication skills and confidence

The adolescents' narratives indicated that their involvement in this peer-led cannabis prevention approach had improved their presentation skills and communication skills. They learnt how to facilitate an open cannabis-related discussion with their Grade 5 peers and how to persuade them to listen to their prevention messages.

In many English classes, it is very difficult to do oral for marks because everything you say makes them [their peers] start giggling and laughing. And you may get penalties because you start saying “uhm this” and “uhm that”. But this [the study] helped us to know what you can do and say to let them listen to us. Like, we learnt how to invite them to join in our discussion by asking them personal questions. [Savanah]

One of the participants also stated that the dissemination of the cannabis-related information among their peers had increased their confidence and had helped them to develop assertiveness to resist peer pressure.

I agree with her; I feel that this helped our confidence a lot. Next year is high school, so I would even go so far [as] to say that it helped us to speak up for ourselves when someone wants to give us drugs or whatever. [Dean]

Correspondingly, a study done by Iwasaki *et al.* (2016:155) reports that the use of participatory pedagogies often leads to increased engagement and meaningful learning among adolescents. As explained by the social learning theory, individuals, including adolescents, tend to master skills in positive emotional environments (Bandura, 1997:79) while engaging in mastery experiences, such as presenting to others, and doing it well. Their parents' praise on their education booklet most likely boosted their confidence further. Yet, apart from gaining presentation skills, communication skills and confidence, the adolescents also noted that the involvement in this project had improved their creativity (cf. Lang *et al.*, 2017:1491) and problem-solving skills (cf. Gardner *et al.*, 2019:15) and had helped them to work as a team.

5.2.2.4 Enhanced creativity, problem-solving skills and teamwork

The adolescents reported that participation in the research project had increased their creativity. It encouraged them to imagine scenes that capture their three prevention messages and they learnt how to take photographs of themselves, of one another and of objects to symbolically highlight ideas. (Figure 5.6 serves as an example.)

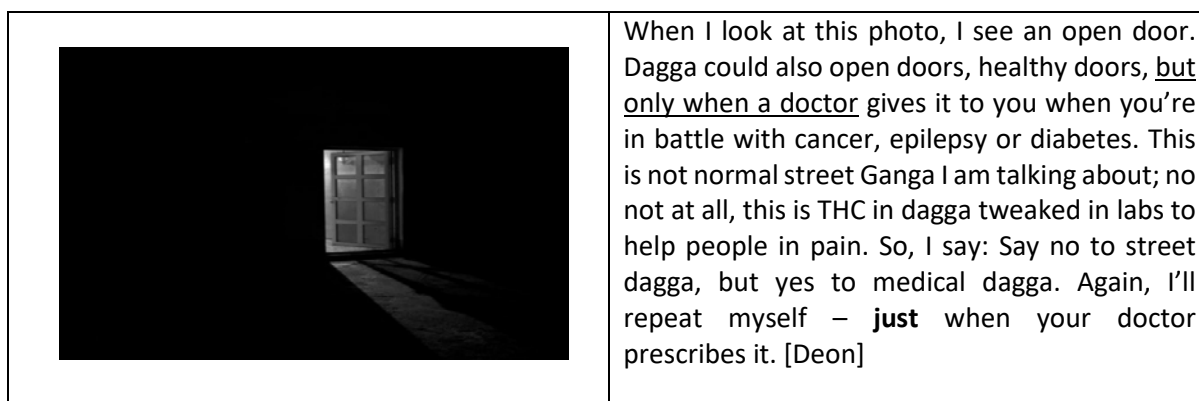


Figure 5.6: Slam dunk. Only use dagga when a MEDICAL DOCTOR says you REALLY need a health bump!

We had to creatively think about ideas, before taking the photos. [Savanah]

I would also say creativity. We learnt how to give messages through pictures where we had to pose. We used our bodies, and also objects to give [portray] messages. [Edward]

Furthermore, the study provided the participants with space to collaboratively explore ways to address and prevent adolescent cannabis use among their peers. Sharing a common concern also led them to feel part of a team.

We also gained problem solving skills, as we explored cannabis solutions to, uhm, fix the situation. This situation being that learners use too much cannabis and even use it at all. [Alexandro]

Well, uhm, while coming up with solutions, we learnt how to work together to come up with one solution. We all could talk to each other about certain solutions to use and worked together on this. [Kamija]

Kunt (2020:88) confirms that the use of art-based methods in participatory action research may enhance adolescents' creativity, problem-solving skills and teamwork skills. In the current study, the adolescents' visual and written artefacts and their interactive presentations created mastery experiences (cf. Bandura, 1997:79), as they actively reflected on their learning in each stage. Furthermore, this pedagogy helped the participating adolescents to reach the outcomes of English as a second language (cf. Department of Education, 2011a:123), the subject I taught. They learnt how to take part in a discussion with their Grade 5 peers, acquired communication skills and presentation skills and learnt how to write narratives to accompany their visual artefacts. The adolescents' engagement in this research experience also motivated them to use interactive strategies to learn about other life orientation topics.

Couldn't we use this method for all the life orientation topics? Like even the sexual topics. [Edward]

Interactive teaching strategies are often the most effective in teaching adolescents life skills, as these methods involve all levels of their learning (Rubin *et al.*, 2017:182). Adolescents also know what they would like to learn about and how it should be taught, as they as they are “insiders” in their community (Cammarota, 2017:197). To conclude, adolescents relate more to those of the same age, grade and gender (Abdi & Simbar, 2013:1200) than to adult experts who often do not understand how adolescents perceive or relate to cannabis use.

In summary, Theme Two focused on how participation in this project influenced the participating adolescents. It increased their knowledge about the consequences of cannabis use, which led them to want to do something with their increased insight and enhanced their agency to act as peer educators. The project also improved their listening skills and empathy towards peers who used cannabis. Moreover, it positively influenced their presentation skills and communication skills, which boosted their confidence. Several adolescents also acknowledged that the involvement in this peer-led programme had made them more creative, critical and able to work with others in a team. They also enjoyed using interactive strategies. In Theme Three, I will focus on how the adolescents' presentations and booklet influenced their Grade 5 peers and their parents.

5.2.3 Theme Three: How the booklet and presentations influenced the Grade 5 learners and the participating adolescents' parents

One of the peer educators, with the pseudonym “Savanah”, presented the prevention messages to their Grade 5 peers by using an educational booklet, designed and developed by all of the participants (see Appendix B). She was selected by the project group to present the messages; the other participating adolescents helped her to answer some of their peers' questions, when needed. Savanah supported her discussion of the three cannabis prevention messages with several printed and enlarged photographs and narratives, shown in Figure 5.7. After the presentation, the Grade 5 learners were given the opportunity to reflect on the content of the booklet. They were also allowed to keep the booklet and use it as a resource.



Figure 5.7: Printed and enlarged photographs and narratives used to support discussion with the Grade 5 learners

Theme Three was about the impact of the adolescents' educational booklet and their presentations to their Grade 5 peers and their parents. The research findings revealed that the adolescents improved their peers' knowledge of the dangers of cannabis use, which ultimately influenced their intentions to use this substance. Moreover, several of the Grade 5 learners stated that in discussing the cannabis-related information with the participants, they had learnt to also spread awareness about the dangers of cannabis use among others and be less judgemental towards their cannabis-using peers. In addition, the booklet enhanced the participating adolescents' communication with their parents, as it helped their parents to discuss the dangers of cannabis use with them.

5.2.3.1 Empowerment of knowledge about the dangers of cannabis use

To determine whether this cannabis prevention approach actually had raised awareness about the dangers of cannabis use, the Grade 5 learners were probed about what they had learnt from Savannah. This question evoked much discussion. Several of the learners indicated that the prevention approach had increased their awareness about the scholastic consequences of cannabis use, that is, its use could affect adolescents' intelligence and might result in school dropout.

That dagga could make you dumb. [L1]

After you use dagga, you will not care about school. You might drop out of school. [L3]

That you might drop out of school when you use cannabis. I never knew that. [L2]

The learners also noted that they had learnt that the use of dagga could lead to the use of harder drugs.

That, uhm, when you use cannabis, you may use stronger drugs. [L7]

Dagga makes you want more and stronger drugs. [L2]

You might start with cannabis and go on with stronger drugs. [L1]

Furthermore, their responses indicated that the prevention messages had helped them contemplate the financial consequences of adolescent cannabis use. Cannabis is expensive; therefore, adolescents may start stealing to get more cannabis supplies.

For a dagga smoker, every day is the same. They just want cash for dagga. [L5]

I learnt that cannabis could make you steal to get more. [L1]

The learners said that they had learnt that cannabis use during adolescence could harm their reproductive health – it could cause infertility and have an impact on an infant's growth.

That maybe after using it, you can't have babies. [L3]

That it affects your baby's growth. [L1]

The learners' comments align with the social learning theory, which posits that learning delivered by individuals with whom adolescents relate is more likely to be internalised (cf. Bandura, 1971:2). The participants and their Grade 5 peers shared a similar cultural context. Also, the adolescents' messages and their visual and written narratives portrayed cannabis-related scenes often encountered by their peers. For example, when the Grade 5 learners were asked whether they perceived dagga use as a social issue in their community, one learner responded that he had seen children buy cannabis in their community from a very young age.

Yes, a lot of people use it. When I was younger, I saw a young child who bought a small bag with green stuff in it nearby [near] a garage [petrol station]. Now I know what it was. [L5]

The Grade 5 learners were also asked to identify additional information that had surprised them in the educational booklet. Several of the learners responded by explaining that it had made them realise that cannabis could be detected for up to 30 days after use.

I did not know that cannabis stays in your body for 30 days. [L4]

Furthermore, the educational booklet increased their knowledge about the short-term effects of cannabis use, such as that after intoxication, adolescents may experience a dry mouth and intense hunger. It also made them aware of the consequences associated with mixing cannabis and alcohol. The co-use of cannabis and alcohol can cause visual and auditory hallucinations.

I did not know that after using cannabis, your mouth will get dry and you will feel hungry.

I also did not know that after using cannabis you will see things that don't exist. [L6]

I didn't know that if you mix alcohol and cannabis together, then you will be hearing things that are not real. [L4]

I didn't know that if you mix a drink [alcohol] with cannabis, you could see stuff. [L15]

Peer-led prevention strategies tend to resonate more with adolescents than adult-led approaches, as adolescents have credibility (MacArthur *et al.*, 2016:404). The booklet was designed in an adolescent-friendly manner, and explanations in the form of the adolescents' visual and written artefacts were provided, which seemingly resonated with their peers. The use of questions and answers also made the cannabis-related information less abstract and created a positive emotional environment (cf. Bandura, 1997:79) in which they could spread awareness about the consequences of cannabis use during adolescence. Moreover, the research findings highlighted that this cannabis prevention study had some success in changing the Grade 5 learners' intentions to use this substance.

5.2.3.2 Changed intention to use

Furthermore, the Grade 5 learners were asked whether the cannabis-related presentation had changed their intentions to use cannabis. They indicated that as their peers had increased their knowledge about the social and academic dangers of cannabis use, they would not experiment with it.

Yes, I don't want to go crazy or stupid. [L5]

I will never ever use it because it will make me stupid. [L2]

Yes, because it's not good for you to use it as children. [L1]

I don't want to use cannabis because I found out a lot of things about cannabis. This really helped me to see what can happen after using cannabis. [L6]

Likewise, the research of Cheetham and Lubman (2017:379) shows that peer educators can delay early-onset substance use or even prevent it. Adolescence is a period in which children often perceive their peers as more important than their parents, and peer education draws on this. It uses peer pressure in a positive manner to promote healthy behaviour among adolescents (Frantz, 2015:1). Furthermore, the learners emphasised that the peer-led approach had helped them to perceive the importance of spreading awareness about the dangers of cannabis use among other adolescents and had made them less judgemental towards those adolescents who used cannabis.

5.2.3.3 Increased awareness of agency and empathy towards cannabis-using peers

The learners further acknowledged that their peers' presentation made them aware of their responsibility in educating other adolescents about the dangers of this substance. One of the learners also noted that it helped him to become more emphatic towards other adolescents who use dagga.

Like, you can tell them not to do it, because it could ruin your life. [L1]

Like, you could go tell them that if they want children, they should stop using it. It could make your future child weak. [L6]

We mustn't judge them. We must help them. [L3]

Although the research is limited, the learners' awareness of agency could have a significant impact on the prevalence of adolescent cannabis use in this community. Health-related knowledge received from peer educators can encourage behavioural change among adolescents (Abdi & Simbar, 2013:1203), and therefore, these learners may use their cannabis-related knowledge to promote anti-cannabis norms among other adolescents. Besides, their increased empathy can be used while supporting those adolescents who use cannabis and who are often reluctant to discuss it with adults. In relation to this, Wójcik and Mondry (2020:257) have found that learners who have gained support from peer educators often want to become peer educators themselves. In the current study, the Grade 5 learners also found the participating adolescents approachable. They trusted their peers and were comfortable with discussing the cannabis-related information with them.

Yes, we trust you. It made it easier. [L3]

I don't know. I just found it safe to talk to you. [L2]

The research of Layzer *et al.* (2017:519) has reported similar results, that is, adolescents tend to trust their peers more than adults, as they are less likely to judge or embarrass them. Furthermore, the Grade 5 learners enjoyed learning from their peers in such a way, to such an extent that they asked the participating adolescents to educate them about the dangers of alcohol, conventional tobacco and other illicit drugs as well.

Yes, I want to learn more about things that could ruin my life. Can't you also come to our class and tell us about the dangers of drinking, smoking and cocaine? [L2]

Not only did this study have an impact on the participating adolescents' peers, but their educational booklet also enhanced their communication with their parents about the dangers of cannabis use.

5.2.3.4 Enhanced communication among parents and adolescents about the dangers of cannabis use

The adolescents' parents perceived the educational booklet as a valuable tool for discussing the dangers of cannabis use with their children. Several parents mentioned that although they had briefly discussed this sensitive topic with their children, the booklet had encouraged a detailed discussion about the dangers of cannabis use with their children.

Yes, but not in detail. The booklet made it easier. It was to the point with enough information. Very useful. [P1]

Yes, I have briefly discussed the dangers of dagga use with my child prior to this exercise. This booklet helped discuss this topic more, because it shows images and examples to help one and my child to understand the dangers of cannabis more. [P4]

There were, however, also parents who previously had not understood the need to discuss the dangers of cannabis use with their children, but the booklet made them aware of their responsibility to discuss this topic with them.

No, there was no need to until now. This booklet helped to discuss it more, because you don't always think of all the dangers, just some of them. Our children of today are more pressured and easily convinced to try new things. It's up to us as parents to inform them of all the dangers that may come their way. By receiving wonderful information like this booklet, it makes it easier [to] convey the dangers to our children. The booklet was very informative and easy to read. Thank you. [P5]

No, not in such detail as the booklet received. Yes, it definitely helped to discuss the topic. The booklet was short and sweet and very descriptive. The booklet helps answering questions of teens without just saying dagga is bad. It describes the bad parts as well as gives them a chance to talk to someone if they feel overwhelmed. [P9]

Parental involvement is crucial in drug education (Hayakawa *et al.*, 2016:433). Parent-child discussions about the dangers of adolescent substance use can protect adolescents from the risks associated with it (Choi *et al.*, 2017:26). Although the adolescents in this community are exposed to cannabis, the booklet encourages discussions between the participants and their parents about the dangers of this substance. In turn, this could further decrease their intentions to use cannabis (cf. Shin & Miller-Day, 2017:279).

5.3 SUMMARY

This chapter presented the research findings of Cycle Two in response to the second secondary research question – “What strategies could adolescents develop to deliver prevention messages about the dangers of cannabis use to peers?” The participating adolescents decided to develop cannabis prevention messages to explain the potential dangers of cannabis use among their Grade 5 peers to help them make informed decisions about its use. These messages were as follows: “Cannabis use can destroy your future dreams”; “make your own decisions, educate yourself, get help, help others”; “engage in healthy activities”; and “don’t judge those who use; educate them”. In addition, I evaluated the impact of intervention strategies on the participating adolescents and their peers.

In Chapter Six, I will revisit the research questions and provide guidelines on how peer-led prevention strategies could be implemented within the school context. This will address the last secondary research question – “What guidelines can be developed to educate adolescents about the dangers of cannabis use in a contextualised way?” I will also reflect on what I have learnt from the study.

CHAPTER SIX: SUMMARY, RECOMMENDATIONS AND CONTRIBUTIONS

6.1 INTRODUCTION

Chapter Five presented the research findings of Cycle Two by exploring the strategies adolescents could design and implement to educate their peers about the dangers associated with cannabis use during adolescence. This chapter will summarise the study, revisit the research questions and indicate how they have been addressed. Moreover, I will reflect on what I have learnt from the study and discuss its limitations. Guidelines will also be provided on how to use arts-based pedagogy and an action research approach to address social issues in a contextual way. Recommendations for further research will be offered. To conclude, the theoretical and methodological contributions made by the study will be discussed.

6.2 SUMMARY

This study was guided by the following primary research question: “How can a participatory action research approach enable adolescents to educate their peers about the dangers of cannabis use?”

Chapter One presented the background and rationale of the study. The decision to address adolescent cannabis use has been based on the fact that the adolescents in my community are exposed to cannabis and we have had several reported cases of cannabis use among our primary school learners. As a teacher, I wanted to help the adolescents to make sensible decisions about cannabis use, should they feel tempted to experiment with it. Furthermore, the first chapter provided the primary and secondary research questions, the purpose of the study and a clarification of the concepts used. This was followed by a brief discussion of the theoretical framework used, that is, Bandura’s social learning theory. The social learning theory highlights the importance of role models in shaping new behaviour and providing positive feedback to reinforce actions. I worked with adolescents to create positive peer pressure through education, and they provided informative feedback to their peers to educate them about the dangers of cannabis use. Lastly, the selected research methodology, measures to ensure trustworthiness and ethical considerations were discussed.

Chapter Two provided a detailed literature review of the physical, academic and social dangers of adolescent cannabis use. In addition, it focused on the different approaches to drug education in South Africa and emphasised that peer education could delay or prevent the use of cannabis among adolescents. To conclude, the social learning theory was used to explain the personal, environmental

and behavioural factors that could contribute to adolescent cannabis use. This knowledge helped me facilitate the cannabis prevention strategies and messages of the participating adolescents.

Chapter Three explained the methodology used in this study. A detailed explanation of the critical paradigm was given, as it enabled me to increase the participants' knowledge of the dangers of cannabis use and to use this knowledge to create adolescent-appropriate prevention strategies to educate their peers. A participatory action research design was justified as suitable for this study. This research design helped the participating adolescents to engage in two cycles in which they collected and analysed data to inform the design and implementation of adolescent-friendly prevention strategies and messages within their school. This chapter also explained the data generation strategies used in both cycles of the study, the measures used to ensure trustworthiness and the ethical considerations I respected.

Chapter Four discussed the research findings of Cycle One, which answered the first secondary question: "What perceptions and knowledge do adolescents have about the dangers of cannabis use?" The adolescents engaged in a World Café discussion and analysed the data. They identified the following themes: "Using cannabis during adolescence can affect your entire life"; "adolescents use cannabis for different reasons"; and "not all peers are aware of the dangers". I also explained how the participants used the logic model to develop cannabis prevention strategies.

Chapter Five presented the research findings of Cycle Two, which addressed the second secondary question: "What strategies could adolescents develop to deliver prevention messages about the dangers of cannabis use to their peers?" The participating adolescents developed an educational booklet with visual and written narratives to explain the prevention messages. They also used it as a basis to present cannabis prevention messages to their Grade 5 peers. The decision to discuss this social issue with the Grade 5 learners was based on the life orientation outcomes in Grade 5 that relate to substance abuse prevention. The participants also wanted to share their cannabis-related learning with their parents; therefore, they took the booklet home to discuss the content with their families. Furthermore, I evaluated the impact of the intervention on the participating adolescents and the Grade 5 learners.

The following section revisits the research questions and offers recommendations in response to the third secondary question: "What guidelines can be developed to educate adolescents about the dangers of cannabis use in a contextualised way?"

6.3 REVISITING THE RESEARCH QUESTIONS

6.3.1 What perceptions and knowledge do adolescents have about the dangers of cannabis use?

In Cycle One, the adolescents explored their perceptions and knowledge of the dangers of cannabis use through a World Café discussion. The data revealed that the participants were aware that the use of cannabis could limit adolescents' future (see Section 4.2.1), as it might lead to scholastic issues and several social problems. Adolescent cannabis use could also harm their reproductive health. Moreover, the adolescents knew that peer pressure, social pressure, previous cannabis experiences and the decriminalisation of cannabis in South Africa could influence their peers' cannabis-related decisions and their use of this substance (see Section 4.2.2). Therefore, they decided to spread awareness about the dangers of this substance in their school (see Section 4.2.3).

6.3.2 What strategies could adolescents develop to deliver prevention messages about the dangers of cannabis use to their peers?

The knowledge gained in Cycle One made the participating adolescents aware of their responsibility in conveying prevention messages about the dangers of adolescent cannabis use among their peers. In Cycle Two, they decided to raise awareness about the academic and social consequences of cannabis use among their peers, as their peers might not be aware that it could ruin their dreams (see Figure 5.1). Their peers are exposed to cannabis use in their community, which could change their perceptions of the health risks associated with its use. The participants also deemed it necessary to use adolescent-friendly, context-appropriate language while presenting their prevention messages, which also converged in their visual and written artefacts and educational booklet (see Figure 5.2). In addition, the participants aimed to help their peers to make informed decisions about cannabis use and to advise them to engage in healthy activities, such as sport, instead of using cannabis (see Figure 5.3). They emphasised that if their peers used dagga, they should advise them not to pressure other adolescents to use it too. Lastly, the participating adolescents intended to tell their peers to support adolescent cannabis users and not judge them (see Figure 5.4).

This innovative prevention approach increased the participating adolescents' awareness of agency and enhanced their listening skills, presentation skills, communication skills, problem-solving skills, teamwork skills and creativity (see Section 5.2.2). It also made them more empathic towards those adolescents who might rely on cannabis as a coping mechanism and increased their confidence significantly.

The adolescents' cannabis prevention messages and strategies also influenced their Grade 5 peers to whom they gave a presentation and at whom they directed the messages (see Section 5.2.3). For example, it increased the Grade 5 learners' knowledge about the dangers of cannabis use and changed their intention to use this substance. In addition, it made the Grade 5 learners aware of their responsibility in spreading awareness of this substance among other adolescents. The learners also indicated that this peer-led approach had increased their empathy towards cannabis-using peers, as it had helped them to emphasise instead of judge those adolescents who use cannabis. The booklet helped the participants to discuss the dangers of cannabis use with their parents and helped them to reach the outcomes of English as a second language.

6.3.3 What guidelines can be developed to educate adolescents about the dangers of cannabis use in a contextualised way?

This study provides evidence that a participatory approach can enable adolescents to research and develop prevention strategies as part of their normal English as a second language class. Although my focus was on the prevention of dagga use, this approach could be used to address any social issue relevant to the lives of the learners. The following guidelines are based on the findings of this study and could be relevant to other subjects as well:

- Although drug prevention is a topic within the life orientation subject, the study showed that addressing issues pertinent to learners' lives could be integrated into other subjects, such as English in this case. This could be done by individual teachers in life orientation and languages in particular, but also as an interdisciplinary project across the subjects. The different subjects may address a common theme. For example, mathematics could focus on learners researching and working out statistics to present in graphs, and so forth. English could focus on communicating the findings, and social studies on the investigation of the phenomenon.
- The learners experienced a participatory form of teaching to be engaging and more interesting than traditional teacher-directed methods. Teacher training programmes could incorporate participatory pedagogies as a core outcome and train pre-service and in-service teachers on how to appropriately implement these methods in all subjects to make the learning content and material more relevant to learners' realities.
- The study found that the learners had specific knowledge about what information was appropriate and how it should be conveyed in a learner-friendly manner. This suggests that adolescents could be involved in determining the content and pedagogy of drug education (also HIV education, sexuality education, etc.), as they possess expert knowledge about what context-appropriate information should be learnt and how it should be conveyed.

- The learners in this study designed their own learning material. Such material could also be used in other classes. Art-based methods engage learners more in their own learning, while also developing holistic skills and technical subject skills among them.
- Lastly, the participating adolescents' booklet enhanced their communication with their parents about the dangers of cannabis use. Thus, parents can be involved in what their children are learning. This may also promote discussion about important issues that have an impact on learners' lives.

In the section that follows, I focus on what I have learnt from offering guidance and support to the adolescents involved in this study.

6.4 PERSONAL REFLECTION ON THE RESEARCH PROCESS

While reflecting on this research process, I realised that the use of a participatory pedagogy helped me engage with learners and to listen and understand the cannabis-related thinking of adolescents. Using this style of learning, however, was not always straightforward and easy for me. Initially, my approach to teaching English as a second language was authoritarian, but as my supervisor prompted me to reflect on each cycle of the study and I saw how this pedagogy made the adolescents enthusiastic towards learning, I realised that I should embrace participatory methodologies in my classroom. Throughout this study, I received feedback from the adolescent participants in each stage of the study. A participatory action research design encourages adolescents to discuss social issues and critically reflect upon them. I also became more aware of the importance of building a positive teacher-learner relationship in my classroom. As my relationship with the participants grew, I saw that the participants felt more comfortable to share their inputs on the social issue that directly affected their lives. This knowledge will benefit other learners I teach as well as my own future teaching. It has helped me to become more aware of how to engage learners who are too shy to speak in front of the whole class.

One constraint I had to face while using this approach to teaching was that several of my colleagues felt that traditional teacher-centred methods could be more effective in spreading awareness about the dangers of cannabis use during adolescence than the engagement of adolescents in drug education. Some of my colleagues also felt that drug education had no place in the English curriculum. However, as I saw that participatory action research could instil life skills among adolescents, give learners a voice in their own learning and improve my classroom discipline, I persevered with the study in this manner. To counter this, I plan to educate my colleagues about the benefits of participatory pedagogies and action research for the improvement of teaching and learning. The participants also

learnt more about communication, vocabulary and writing skills than with traditional pedagogies, as this pedagogy allowed deeper and interactive learning. The use of art-based methods as a teaching strategy increased learner engagement and led to holistic learning among the adolescent participants. There were, however, also some limitations of this study I need to mention.

6.5 LIMITATIONS

This study had several limitations. For example, there was no clear evidence whether this research project reduced the prevalence of cannabis use among the participating adolescents and their peers, as their use was not determined over time. It was also beyond the scope of the study to determine this. Moreover, this research was conducted at one school; therefore, the research findings cannot be generalised to other locations. However, I can offer recommendations for further research based on the research findings and my learning.

6.6 RECOMMENDATIONS FOR FURTHER RESEARCH

While conducting this study, several other areas emerged that could be researched and explored:

- Globally and in South Africa, much research has focused on how participatory action research could improve adolescents' health-related behaviour, but more studies are needed to determine whether interactive approaches could be appropriate for educating adolescents about other topics that may have a negative impact on their learning and development.
- Furthermore, investigations could be done to determine whether participatory methodologies can be used for other grades in relevant subjects.
- Lastly, as many South African educators struggle to effectively implement engaging methods in their teaching of the subject life orientation, the curriculum could be revisited by further studies to determine how learner-centred pedagogies and content-appropriate health-related information may be incorporated across the curriculum.

6.7 CONTRIBUTION

Methodologically, this research project contributes to the existing literature on the value of participatory pedagogies for teaching learners about issues that could have a negative impact on their learning and development. Detailed explanations were also provided of how the participants were engaged in a participatory action research design and how they used the logic model to develop their cannabis prevention strategies, which could assist other studies in how to conduct drug abuse prevention programmes and other similar initiatives with adolescents. Moreover, the research

findings provide insights into how adolescents perceive the dangers of cannabis use, which could add to existing theories on drug education and how these could be appropriately addressed within a school. Many South African educators struggle to implement drug education, but this study can serve as an exemplar on how to lead adolescents to make informed decisions about drug use.

6.8 CONCLUDING REMARKS

The use of cannabis during adolescence is often associated with negative physical, academic, psychological and social consequences. Although much has been done to reduce the prevalence of adolescent cannabis use in South Africa, the literature reports that the involvement of adolescents in designing and implementing prevention strategies and messages is not the norm, although it has been proven to have positive outcomes. Adolescents possess expert knowledge of how their peers relate to and feel about cannabis use, as they too are directly influenced by the use of this substance in their community. This study enabled adolescents to educate, first, themselves and then their peers about the dangers of cannabis use through a participatory action research approach. The research project also enhanced the life skills of the adolescent participants, helped them and their peers to make informed decisions about cannabis use and increased the communication between the participating adolescents and their parents about the dangers of cannabis use. Moreover, it provided guidelines for educators on how to make their teaching about social issues more engaging for learners.

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APPENDIX A: EXTRACT OF RECORDED AND TRANSCRIBED DISCUSSION WITH PARTICIPANTS ABOUT VISUAL AND WRITTEN ARTEFACTS

25/08/2020

Present: Researcher and 14 participants (Alejandro, Dean, Deon, DJ, Edward, Hank, Heidi, John, Kamija, Kea, Luke, Page, Savannah and Shauna).

Codes used:

- What is happening?
- What is it about?
- How does it relate to our lives?
- What could you do?
- Why is it happening?
- Feedback from peers

Researcher: Hi guys, like you guys know we are done with the photovoice, meaning we took photos and you guys wrote paragraphs about them. So now in class, we are just going to discuss them. I want you to explain what you see in your photo, what is happening in the photo, how does this relate to our lives, why is this happening and what can we do to change it. Is there any volunteer who wants to go first?

Heidi: Yes, me.

Researcher: Okay, you may come to the front. Could you please tell us about your photo?

Heidi: My photo is about a young man who is going through a drug tunnel that started with cannabis use. He started with cannabis and moved on to using stronger drugs, because it does not get him high anymore. I am worried, because he might ruin his life because of this drug.

Researcher: Why did you say cannabis is a gateway drug?

Heidi: It's a gateway because it is cheap in our community and people start with it from a young age.

Researcher: Okay, why is this happening?

Heidi: We can't really say for sure, but I think he did not really know what could happen after using it once.

Researcher: Okay, and what can we do about it?

Heidi: We can tell him that this could happen, like his future is going to slip through his fingers. And we can tell him about the dangers.

Researcher: Any comments on this?

Alejandro: Yes, I liked her perspective on how this physically affects young children. We are in control.

Kamija: Can I add something? Now I know why we could use slang. We all understand and use these words.

Researcher: Nice, I am so glad that you are able to see the value of this approach. Okay, the next person may come to the front.

Page: Pressuring peeps is not cool, jo.

All participants: (Laugh).

Researcher: Could you explain your poem to us and your picture?

Page: It is about that it is not cool to pressure others to use dagga.

Researcher: Could you please read it to us?

Page: Yes, Teacher. (Reads poem).

Researcher: And your picture?

Page: My picture is scary. I see scary, big hands and sharp fingers pointing at the girl, bullying her to do dagga. It's like a horror movie.

Researcher: Why did you write this poem? Why does this happen?

Page: I think children see it, and it looks fun. Then, they [peer cannabis users] try to motivate others to also. But two wrongs do not make a right.

Researcher: What can we do about this?

Page: I think that people should know that they should not pressure others into using dagga. We should tell them that. Don't pressure others.

Researcher: Any feedback?

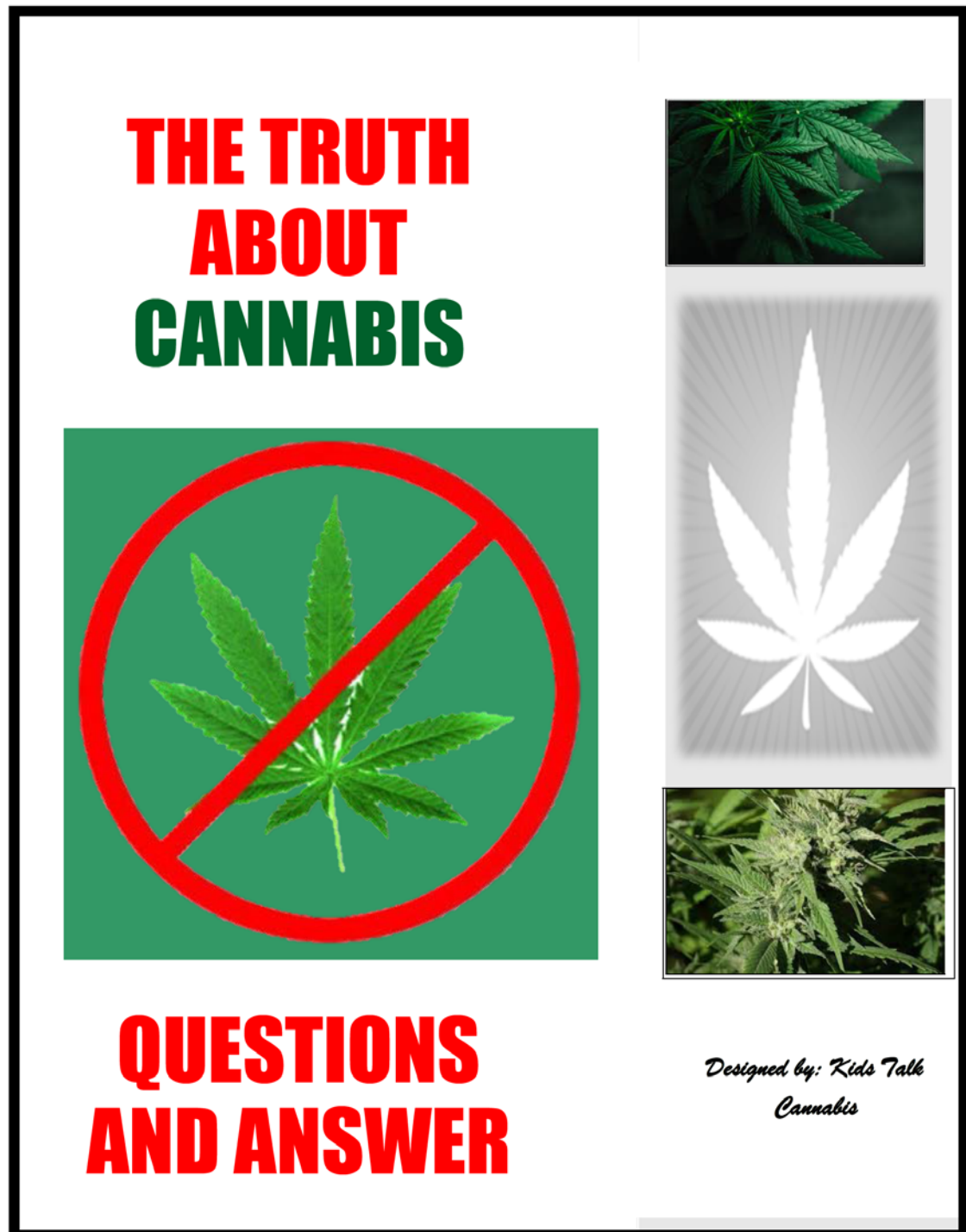
Deon: It is not fine to motivate others to use dagga.

Researcher: Why?

DJ: We all have to make our own decisions.

Researcher: Cool, thank you.

APPENDIX B: EXAMPLE OF EDUCATIONAL BOOKLET



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1. QUESTION: WHAT IS CANNABIS?



ANSWER: CANNABIS IS A TYPE OF PLANT, WHICH MAKES YOU HIGH, BECAUSE IT CONTAINS THC. IT IS OFTEN ALSO CALLED: WEED, DAGGA, MARIJUANA, GANGA, OR POT. THC CHANGES HOW YOUR BRAIN WORKS.

2. QUESTION: HOW IS CANNABIS USED?

ANSWER: CANNABIS IS MOSTLY SMOKED AS A CIGARETTE (CALLED A JOINT OR BLUNT). PEOPLE COULD ALSO TAKE OUT THE OIL AND PUT IT IN SALADS AND IN SWEETS (CALLED EDIBLES). SOME PEOPLE ALSO USE CANNABIS EXTRACTS (GO TO QUESTION 11).

3. QUESTION: COULD YOU GET HIGH FROM STANDING TOO CLOSE TO A PERSON WHO USES CANNABIS?

ANSWER: NO, BUT SMOKING IN FRONT OF CHILDREN IN SOUTH AFRICA IS ILLEGAL (GO TO JAIL).

4. QUESTION: HOW LONG DOES CANNABIS STAY IN YOUR BODY?

ANSWER: UP TO 30 DAYS, BUT IT ALSO DEPENDS ON HOW IT IS USED, HOW MUCH IS USED AND WHETHER OR NOT IT IS TAKEN WITH ALCOHOL (GO TO QUESTION 13).

5. QUESTION: WHY DO TEENS USE CANNABIS?

ANSWER: THEY HAVE FRIENDS WHO USE IT. MANY GET BULLIED INTO USING IT.



'THC IS THE MAIN INGREDIENT IN CANNABIS- LIKE EGGS, FLOUR AND OIL USED TO BAKE A CAKE.

EDIBLES:



JOINT/BLUNTS:



EXTRACTS (DROPLETS):



READ THIS POEM:

"Have a puff of dagga",
You might say to a friend
"It's healthy, an herb and non-addictive-
use it" you add, so instructive.
BUT
Exposing a peep to weed,
Makes your character very weak
It could ruin your future sleep
In a single heartbeat.

So, take it from me,
Just leave non-cannabis users to be!

SOME ARE STRESSED OUT AND THEY WANT TO TRY IT TO CHILL:

FAMILY FIGHTS SUCK, YES! BUT DON'T DEPEND ON DAGGA TO MAKE IT ALL BETTER, IT MIGHT JUST MAKE IT WORST. NOW, YOUR PARENTS MIGHT START FIGHTING OVER YOU. REGRETS ABOUT USING CANNABIS COULD FOLLOW YOU LIKE A ROMAN SPIDER AT NIGHT, YUCK!! IT'S MUCH EASIER TO STAY AWAY FROM CANNABIS THAN TO GET OFF IT! I KNOW YOU HURT, BUT IS DAGGA REALLY WORTH THE GAGGA?

IT IS LEGAL IN SOUTH AFRICA FOR THOSE OVER THE AGE OF 18, BUT ONLY AT HOME. SOME HAVE TRIED IT ONCE AND WANT THE "LEKKER" FEELING AGAIN.

6. QUESTION: WHAT HAPPENS DIRECTLY AFTER YOU USE CANNABIS?

ANSWER: AFTER A FEW MINUTES OF USING IT, YOUR EYES WILL BECOME RED, YOUR MOUTH WILL BECOME DRY (COTTON MOUTH), YOU WILL START LAUGHING AND FEEL VERY HUNGRY OR THIRSTY (MUNCHIES).

Pressuring peeps is not cool, jo!



Using dagga does not make your life less GAGGA



COTTON MOUTH:



MUNCHIES:



7. QUESTION: WHAT ARE THE SHORT-TERM EFFECTS OF CANNABIS USE?

ANSWER: AFTER USE, YOUR HEART WILL START BEATING VERY FAST. YOU MIGHT EVEN FALL OVER THINGS.

8. QUESTION: WHAT ARE THE LONG-TERM EFFECTS OF CANNABIS USE?

ANSWER: ONCE YOU START USING CANNABIS, YOU COULD END UP ASKING QUESTIONS ABOUT IF THE USE OF STRONGER DRUGS ALSO COULD GET YOU HYPED UP. I MEAN, YOUR BODY COULD BUILD UP TOLERANCE TO DAGGA AND YOU MIGHT WANT SOMETHING MORE EXCITING THAN DAGGA. USING CANNABIS IS LIKE WILLINGLY WALKING THROUGH THE "I HAVE GIVEN UP GATE". YOU HAVE THE POWER TO CONTROL IT!

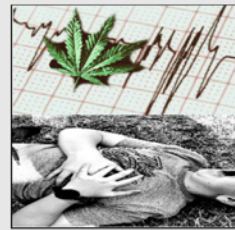
IT MIGHT ALSO INFLUENCE YOUR ABILITY TO THINK CLEAR AND IT COULD CAUSE CANCER.

I SEE A BOY WHO HAS LOST HIS MOTIVATION TO BECOME A HARDWORKING HUMAN BEING, BECAUSE OF SMOKING WEED. HE MADE A SIGN THAT SAYS THAT HE IS LOOKING FOR WORK, BUT ACTUALLY, HE IS JUST LOOKING FOR CASH TO GET HIS NEXT CANNABIS FIX. AT NIGHT WHEN THERE'S FEWER PEOPLE TO GIVE HIM MONEY, HE MIGHT LIKE SHOPLIFT OR MUG PEOPLE AND EVENTUALLY END UP IN THE SLAMMER.

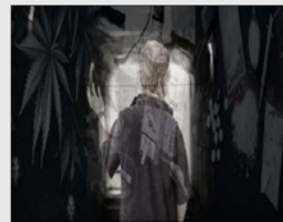
9. QUESTION: DOES CANNABIS AFFECT YOUR SCHOOLWORK AND INTEREST IN SPORTS?

ANSWER: YES, THIS PICTURE IS A REMINDER THAT USING DAGGA NOW COULD CAUSE YOUR FUTURE TO SLIP THROUGH YOUR FINGERS. WHEN YOU START USING DAGGA, YOU ARE LITERALLY THROWING AWAY SOME OPPORTUNITIES. LIKE, YOU MIGHT FIND IT HARD TO CONCENTRATE IN CLASS, BECAUSE DAGGA HAS A HUGE EFFECT ON YOUR BRAIN. IT CAN LOWER YOUR IQ BY 8 POINTS! EVENTUALLY YOU MIGHT EVEN DROP OUT OF SCHOOL. YOU MIGHT HAVE TO GET A JOB VERY EARLY IN LIFE, WITHOUT A MATRIC OR COLLEGE DEGREE.

INCREASED HEART RATE:



You have the **POWER**, don't let your life go sour



Cannabis: You USE, you LOSE!



RESTRAIN, dagga could make you future **PLAIN!**



14. QUESTION: WILL YOU GET HIGH FROM DRINKING CANNABIS ENERGY DRINKS?

ANSWER: NO, BUT ENERGY DRINKS ARE NOT HEALTHY FOR YOUR BODY.

15. QUESTION: HOW TO STOP YOUR USE OF CANNABIS?

ANSWER: OVERCOME YOUR BOREDOM OR COPE WITH STRESS BY ENGAGING IN SPORTS.

REMEMBER THIS:

Tell me why do you want to use cannabis? Are you stressed? Or are you sad? Life is tough. But, living life while high is even worse. Then, why use cannabis if you could rather just do sports? Making bad cannabis decisions will not make you less stressed or sad. But stretching, playing rugby and playing netball will!

WE CAN HELP:

Being a teen is hard, we make mistakes
And might end up taking cannabis breaks.

I'll be on your side
Happily going with you in every width and high tide.

So, do you want to live cannabis free?
Just call and follow me.

FOR TREATMENT PROGRAMMES:

011 892 3829

SANCANATIONAL@TELKOMSA.NET



SPORTS are COOL, DAGGA is DROOL!



Living pot free is for me!



16. QUESTION: HOW DO I SUPPORT A CANNABIS USER?

ANSWER: TELL THEM ABOUT THE DANGERS OF CANNABIS USE. BOOST THEIR CONFIDENCE. LISTEN TO WHY THEY WANT TO USE CANNABIS, WITHOUT JUDGING THEM.

DO THIS:

SIMON SAYS TOUCH YOUR FOOT. SIMON SAYS JUMP IN THE AIR. SIMON SAYS LOOK AT THE GROUND. SIMSON SAYS DON'T BE A BULLY TOWARDS PEOPLE WHO USE CANNABIS. INSTEAD, SUPPORT YOUR FRIEND WHO SMOKES OR EATS EVIL COOKIES BY TELLING THEM ABOUT THE DANGERS. HELP THEM TO WIN LIFE. BOOST THEM. WE ARE NOT THE SAME, SOME TRY IT, SOME DON'T. BUT WE ARE IN THIS TOGETHER. NAME CALLING MAYBE MAKES YOU A HERO IN YOUR HEAD, BUT A ZERO IN SIMONS

Be a HERO, bullying dagga users makes you a 0!



APPENDIX C: EXTRACT OF PARTICIPANTS' RECORDED AND TRANSCRIBED DISCUSSION WITH GRADE 5 LEARNERS

10/09/2020

Present: Researcher, 14 participants (Alejandro, Dean, Deon, DJ, Edward, Hank, Heidi, John, Kamija, Kea, Luke, Page, Savannah and Shauna) and Grade 5 learners.

Presented messages:

- Cannabis use can destroy your future dreams
- Make your own decisions, educate yourself, get help, help others
- Engage in healthy activities
- Don't judge those who use; educate them

Savanah: Okay, now I'm going to tell you about other consequences of cannabis use. We are going to focus on what it could do on children our age. I want to tell you this to help you make good decisions. When you use cannabis, you can't concentrate in class. Why? Cannabis is made of a thing called THC. It's like a cake is made of eggs and flour, so is cannabis made out of THC. THC has an effect on our brain, so you can't concentrate. You will sit here in class high and you will be like, uhm uhm uhm. Even if you read words, you will automatically forget them. For example, you will read, this is an apple, you will be like, what is this again? You won't be able to remember. If you can't concentrate in class, you will fail a grade. Think about it, if you can't complete a test, how are you going to go to Grade 6? Then the last one, some people even leave school. Why? Because cannabis makes you lazy. You just want to lie down and be lazy all day. Okay, the social dangers. Like you know, many people start using cannabis, neh, and after a while they go to other drugs. You will see on this picture, the last step is pills and heroine and stronger stuff. This is because you build up tolerance; after a while you want more and more and more.

Kamija: She means you want more fun and good stuff. Then, after a while, cannabis is not going to help you feel good anymore. You will want more and more and more. You want to feel lekker again.

Savanah: Then, after a while, you are going to lose interest in sports. Like, this guy (referring to photovoice display) has a board in his hand that says: keep your sports, I want weed. Meaning that when you use cannabis, you don't want to do sport anymore. You become lazy and want to lie down and chill. You see, cannabis could take it away. It could also take away valuable lessons, like how to, like how to work in a team, how to

be on time and lastly, how to talk to friends. Because when you use this, you just want to be alone. People may even judge you if they don't use it and they are worried about you. You will get mad at them and just want to be alone. Then cannabis also has financial consequences. Cannabis is very expensive and because you lose motivation when you use it and you don't want to work or go to school, after a while, you will need more money, neh, and you might start stealing just to get more and more and more. You may start to steal just to get more of it. Okay, so cannabis is expensive and after a while, people might start stealing. When you buy cannabis, you are throwing away your life, guys, and uhm, if we start using cannabis now and go on with it, it could also have an effect on your baby. When you smoke cannabis and you are expecting a baby, the baby is going to be very, very small. It also has an effect on their intelligence later in life. Some people, men and women, even struggle to have babies after using it from a young age.

Learner 2: But, can this happen from only smoking it from one time?

Savanah: One time is not so bad, but uhm, see, we want to help you to avoid doing it. Like when you are in a situation when someone wants you to do it, tell that person "no". Dagga is dangerous. You have to make your own decisions about it.

Learner 3: Can people uhm, throw dagga in your drink like what guys do in the movies to girls [date rape].

Savanah: All I can tell you is be extra careful. People could do many things to make you use cannabis.

Learner 3: What happens if you overdose?

Savanah: Cannabis itself is not addictive, so you can't overdose on it. But, the lekker feeling is. It's like if you like going on a roller coaster, you may start with a small ride and end up going on the viper.

Page: Can you see that cannabis can affect your future? What about your dreams? What about your studies? What about how your mom and dad will feel if you use it?

APPENDIX D: EXTRACT OF PARTICIPANTS' RECORDED AND TRANSCRIBED DISCUSSION ABOUT RESEARCH PROCESS

10/09/2020

Present: Researcher and 14 participants (Alejandro, Dean, Deon, DJ, Edward, Hank, Heidi, John, Kamija, Kea, Luke, Page, Savannah and Shauna).

Codes used:

- Knowledge – led to agency
- Enhanced listening skills and empathy
- Increased creativity, problem solving and teamwork
- Enhanced presentation skills, communication skills and confidence
- Participants want to use method for other topics

Researcher: Guys and girls, I would like to thank you for your support and hard work throughout this research project. I really appreciate everything you have done. Now, I would like you, ask you, to reflect on the research process and tell me about what you have learnt.

Page: We learnt about the mental, social and financial dangers of dagga use, and actually a lot more. Cannabis is a dangerous substance. And I know now that we should protect others by telling them about the dangers of dagga use.

Savannah: We learnt a lot about cannabis and that we should share to others who use it or to those who want to use it how dangerous its use could be.

Edward: I think this study gave me enough knowledge to know that I shouldn't use cannabis. But I was part of this project and many other learners were not, so I feel that it is my responsibility to tell them about the dangers of dagga use.

Researcher: Do you think you will be able to do this in high school as well? Should you even spread awareness about the dangers of dagga use after this project?

Kamija: Yes.

Researcher: Why? Could you please explain more?

Kamija: Let's just think about our area, like uhm even our plaza, there are people standing there, selling cannabis and other drugs. We have to share our knowledge about the dangers of dagga with others, so that they don't get stuck using it. Also, I do not know what high school holds, but I think there will be a lot of pressure on us to try drugs; maybe we should even try to tell others about this next year.

Alejandro: Could I also add something?

Researcher: Yes, of course. All your inputs are valuable to me and to this study.

Alejandro: I would also like to do this in high school. High school people need to know about the dangers of cannabis. My mom has warned me about how high school learners might bully me into doing drugs, smoking and drinking, because they think it is cool. When I get the opportunity to help someone, I will inform them and try to help them, because they need to be aware of it and all the bad things of cannabis.

Researcher: Okay, cool, I am very proud of your commitment.

Dean: I also learnt that it is not always a person's fault if they use cannabis; some get bullied into it.

Alexandro: We learnt not to judge others. We are not all the same.

Kea: Could I ask someone? Could I also get a few copies of the pamphlets to give to my other friends? Then they could also know about the dangers of dagga use.

Researcher: Yes, that is a lovely idea.

Page: It could also help us to remember this moment.

Researcher: Okay, thank you, my peer educators.

APPENDIX E: EXAMPLES AND ANALYSIS OF PARENTS' WRITTEN RESPONSES

12/10/2020

Codes used:

- Parent briefly discussed the dangers of dagga use with children, but not in such detail
- Parent was made aware of responsibility to discuss the dangers of dagga use with child

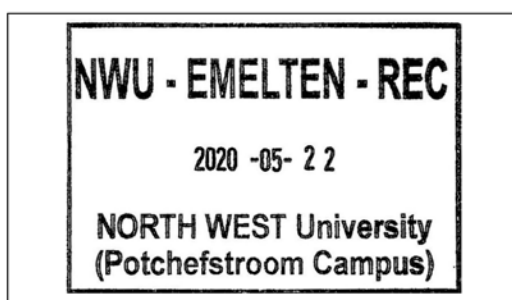
- Parent 1: Yes, but not in detail. The booklet made it easier. It was to the point, with enough information. Very useful.
- Parent 2: Yes. Yes, now even I understand to avoid dagga.
- Parent 3: Yes, I have spoken to my daughter about the dangers of smoking, let alone dagga. Yes, this booklet helped me to discuss the topic with my daughter. It helped me to understand the consequences of using dagga. Kids lose focus and concentration on school work, that causes him/her to fail his/her grades and eventually drop out of school. She/he might end up stealing money to buy this because dagga is addictive.
- Parent 4: Yes, I have briefly discussed the dangers of dagga use with my child prior to this exercise. This booklet helped discuss this topic more, because it shows images and examples to help one and my child to understand the dangers of cannabis more.
- Parent 5: No, there was no need to until now. This booklet helped to discuss it more, because you don't always think of all the dangers, just some of them. Our children of today are more pressured and easily convinced to try new things. It's up to us as parents to inform them of all the dangers that may come their way. By receiving wonderful information like this booklet, it makes it easier [to] convey the dangers to our children. The booklet was very informative and easy to read. Thank you.
- Parent 6: Yes, we have discussed the dangers of dagga use with our child prior to this exercise. The booklet was nice and informative.
- Parent 7: Yes, my child knows about dagga and she already knew that dagga is very bad for you and that dagga is gagga. She learnt new stuff about the dangers and how she can help people that screwed up their lives by using dagga.
- Parent 8: Yes. No, my child has done a lot of her own research regarding the topic. The booklet is however very well laid out and thought out. I am sure it will be very useful to use as a discussion point with children who are uninformed.

APPENDIX F: CONSENT FORMS, FLYER TO PARENTS, PERMISSION LETTERS AND APPROVAL OF RESEARCH ETHICS COMMITTEE



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The Faculty of Health Sciences Ethics Office of the North-West University is acknowledged for the use of their document with minor adjustments made by the North-West University Education, Management and Economic Sciences, Law, Theology, Engineering and Natural Sciences Research Ethics Committee (NWU-EMELTEN-REC).



INFORMED CONSENT DOCUMENTATION FOR LEARNERS IN GRADE 7 ENGLISH AS ADDITIONAL LANGUAGE CLASS

TITLE OF THE RESEARCH STUDY: Engaging school-going adolescents as peer educators in education about the dangers of cannabis use: a participatory action research approach

ETHICS REFERENCE NUMBERS: NWU 01101 20 S2

PRINCIPAL INVESTIGATOR: Prof. Lesley Wood

POST GRADUATE STUDENT: Elmarie Jansen van Vuuren

ADDRESS: 12 Avenue nr. 13, Thabazimbi

CONTACT NUMBER: 072 147 5308

You are been invited to take part in a **research study** that forms part of a master's study. Please take some time to read the information presented here, which will explain the details of this study. Please ask the researcher or person explaining the research to you any questions about any part of this study that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research is about and how you might be involved. Also, your participation is **entirely voluntary**, and you are free to say no to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part now.

This study has been approved by the **North-West University Education, Management and Economic Sciences, Law, Theology, Engineering and Natural Sciences Research Ethics Committee (NWU.....)** and will be conducted according to the ethical guidelines and principles of Ethics in Health Research: Principles, Processes and Structures (DoH, 2015) and other international ethical guidelines applicable to this study. It might be necessary for the research ethics committee members or other relevant people to inspect the research records.

What is this research study all about?

- I want to raise your awareness of the dangers of dagga use. Therefore, I will integrate education about this into your normal English class.
- You will all do the activities to research about the dangers of dagga, analyse the information, develop prevention messages and material and present this to the rest of the class and your fellow learners in other classes if you wish.

Why have you been invited to participate?

- You have been invited to be part of this research because you are a Grade 7 learner in my class.

What will be expected of you?

- Nothing more than attending the class and engaging in the activities is expected. However, I do need your permission to use the visual artefacts and texts you produce as data for my Masters study. I will teach in the following way:

Cycle one: You will work in groups to explore what you know about the dangers of dagga use for young people, then research to expand the knowledge. Then you will analyse the information and decide on specific prevention messages you wish to send to others.

Cycle two: After that, you will decide on how to present these messages using photographs, poems, posters etc. as you choose and create the prevention material. You will present your messages to the rest of the class, and if you wish, to the rest of the learners in the school.

I will also record the discussions in class to use as data.

Will you gain anything from taking part in this research?

- The gains for you if you take part in this study will be enhanced life skills, as well as increased knowledge about how to make healthy decisions about dagga use. And of course, you will improve your written and oral English.

Are there risks involved in you taking part in this research and what will be done to prevent them?

- We see only minimal risks in that some of you may experience negative emotions when talking about dagga use. If so, you can tell me and I can refer you to a counsellor.
- There are more gains for you in joining this study than there are risks. All of you will do the activities and be assessed on your language skills, but I will only use

the data of those who give consent for my research and academic purposes. Whether you give consent or not will not affect my assessment of your work in any way.

How will we protect your confidentiality and who will see your findings?

- Anonymity of your findings will be protected by not identifying your name in any publication or presentation for my research purposes. Your privacy will be respected by using a code. However, since this is a participatory study you will be aware of your findings and you may wish to disseminate them within your school. The visual data will belong to you and the researcher will scan copies that she will keep in a password protected file. The transcriptions will also be kept in a password protected file. As soon as data has been transcribed it will be deleted from the recorders. Data will be stored for five years.

What will happen with the findings or samples?

- The findings of this study will only be used for this study.
You will use the findings to conduct peer education in your school.

How will you know about the results of this research?

Since you will be generating the knowledge, you will be aware of the findings.

Will you be paid to take part in this study and are there any costs for you?

Since this is part of normal teaching, you will not be paid.

Is there anything else that you should know or do?

- You can contact me, Elmarie Jansen van Vuuren at 072 147 5308 if you have any further questions or have any problems. You can also contact my supervisor, Prof Lesley Wood at Lesley.wood@nwu.ac.za or 0822969202.
- You can also contact the North-West University Education, Management and Economic Sciences, Law, Theology, Engineering and Natural Sciences Research Ethics Committee via Mrs Villera le Roux at 018 299 4707 or villera.leroux@nwu.ac.za if you have any concerns that were not answered about the research or if you have complaints about the research.
- You will receive a copy of this information and consent form for your own purposes.

Declaration by participant

By signing below, I agree that you can use my class work as data for your study entitled: Engaging school-going adolescents as peer educators about cannabis use: a participatory action research approach

I also give consent that my name may be attached to my work should I request it e.g. when displaying the photographs so that I get recognised for my contribution. ☐

I would like to take part in educating my fellow learners about the dangers of dagga use.
☐

I declare that:

- I have read this information/it was explained to me by a trusted person in a language with which I am fluent and comfortable.
- The research was clearly explained to me.
- I have had a chance to ask questions to both the person getting the consent from me, as well as the researcher and all my questions have been answered.
- I understand that allowing my classwork to be used is **voluntary** and I have not been pressurised to give assent.
- I may change my mind on my decision at any time and will not be handled in a negative way if I do so.
- My work may not be used in the study if the researcher feels it is in the best interest, or if I do not follow the study plan, as agreed to.

Signed at (place) on (date) 20....

.....
Signature of participant

.....
Signature of witness

Declaration by person obtaining consent

I (name) declare that:

- I clearly and in detail explained the information in this document to
.....
- I did/did not use an interpreter.
- I encouraged him/her to ask questions and took adequate time to answer them.
- I am satisfied that he/she adequately understands all aspects of the research, as discussed above
- I gave him/her time to discuss it with others if he/she wished to do so.

Signed at (place) on (date) 20....

.....
Signature of person obtaining consent

Declaration by researcher

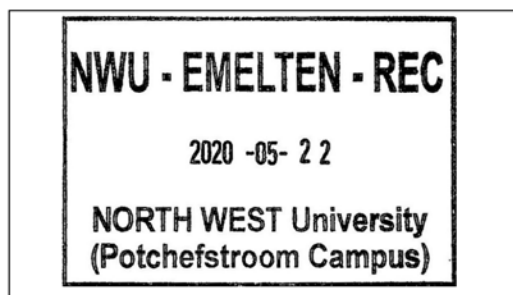
I (name) declare that:

- I had it explained by one of my peer educators who I trained for this purpose.
- I did/did not use an interpreter
- I encouraged him/her to ask questions and took adequate time to answer them.
- The informed consent was obtained by an independent person.
- I am satisfied that he/she adequately understands all aspects of the research, as described above.
- I am satisfied that he/she had time to discuss it with others if he/she wished to do so.

Signed at (place) on (date) 20....

.....
Signature of researcher

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**INFORMED CONSENT DOCUMENTATION FOR PARENT OR GUARDIAN OF LEARNERS IN
GRADE 7 ENGLISH ADDITIONAL LANGUAGE CLASS**

TITLE OF THE RESEARCH STUDY: Engaging school-going adolescents as peer educators in education about the dangers of cannabis use: a participatory action research approach

ETHICS REFERENCE NUMBERS: NWU 01101 20 S2

PRINCIPAL INVESTIGATOR: Prof. Lesley Wood

POST GRADUATE STUDENT: Elmarie Jansen van Vuuren

ADDRESS: 12 Avenue nr. 13, Thabazimbi

CONTACT NUMBER: 072 147 5308

As class teacher of your child, I would like to ask your consent to me using the work he/she produces in class for data in my research study for my Masters degree. Please take some time to read the information presented here, which will explain the details of this study. Please ask the researcher or person explaining the research to you any questions about any part of this study that you do not fully understand. It is very important that you are fully satisfied that you clearly understand what this research is about and how your child might be involved. Also, your child's participation is **entirely voluntary**, and he/she is free to say no to participate. If he/she says no, this will not affect him/her negatively in any way whatsoever. He/she is also free to withdraw from the study at any point, even if he/she does agree to take part now.

This study has been approved by the **North-West University Education, Management and Economic Sciences, Law, Theology, Engineering and Natural Sciences Research Ethics Committee (NWU.....)** and will be conducted according to the ethical guidelines and principles of Ethics in Health Research: Principles, Processes and Structures (DoH, 2015) and

other international ethical guidelines applicable to this study. It might be necessary for the research ethics committee members or other relevant people to inspect the research records.

What is this research study all about?

- As a teacher I am concerned about the increasing use of dagga among young people, even at primary school level. I want to make learners aware of the dangers, but do not want to just lecture them, as this will probably have little effect on them. By engaging them in researching about the dangers of cannabis use, and then developing prevention messages, they will not only learn themselves about the dangers, but also will be able to educate their fellow learners in an age-appropriate way.
- This study will be conducted in your child's school, done by experienced researchers trained in participatory action research. All the learners in the class will do activities to research about the dangers of cannabis use by young people, and then develop prevention messages, using arts-based strategies (e.g. photo displays, posters, poems) to deliver these messages. This will be done as part of the English as additional language class to improve their communication, spoken and written in English, as well as their presentation skills.

Why has your child been invited to participate?

- As a Grade 7 learner in my class, your child will do these activities. However, I need your permission to use the classwork of your child as data for my Master's study.

What will be expected of your child?

- Your child will take part in the classwork as normal. Nothing more is expected of them. However, I do request your permission to include the work of your child as data in my study.
- The children will present their messages to their classmates but will also have the chance to present to fellow learners in other grades. You can also request that your child does not take part in this aspect of the work if for any reason you do not wish them to. It will in no way affect their class mark.
- I will use the following as data:

Arts-based methods

Your child will work as a group with his/her classmates to make educational resources (e.g. photographs, posters, poems etc – as they choose) to deliver messages on the dangers of cannabis use to their peers as a form of prevention education.

Recorded class discussions

Class discussions about the dangers of dagga use and what messages should be sent and how will be audio recorded by me. Your child's identity will be safeguarded as I will only identify them by a code and not their real name.

Will your child gain anything from taking part in this research?

- The gains for your child if he/she takes part in this study will be enhanced life skills, such as the ability to research and analyse information, work in a group, make collaborative decisions, increased confidence in presenting, as well as improved language skills.

Are there risks involved in your child's taking part in this research and what will be done to prevent them?

- There are minimal risks for your child in participating but the gains of participation outweigh the possible risks. If for some unexpected reason your child may experience negative

emotions as a result of talking about the dangers of smoking dagga then my supervisor who is a registered social worker with experience in drug counselling will render the necessary counselling.

- This will be part of the normal classwork, the only thing that I am asking permission for is to use their work as data.

How will we protect your child's confidentiality and who will see the findings?

- Anonymity of your child's findings will be protected by not identifying his/her name in any publication. Your child's privacy will be respected by using a code. However, since this is a participatory study your child's input will contribute to the findings. They will present their findings to their classmates and the wider school if they wish. I am interested more in the value of using this approach to teaching and how it can help the learners to become aware of the dangers of dagga use. The visual data will belong to your child and I will scan copies that I will keep in a password protected file. The transcriptions will also be kept in a password protected file. As soon as data has been transcribed it will be deleted from the recorders. Data will be stored for five years.

What will happen with the findings?

- The findings of this study will only be used for the purposes of writing a Master's dissertation and related academic outputs such as articles, presentations etc.
- The learners will present their findings to their fellow learners.

How will you know about the results of this research?

Since your child will be generating the knowledge, he/she will be aware of the findings so you can ask them at any time.

Will learners be paid to take part in this study and are there any costs for you?

Since this is part of normal teaching, learners will not be recompensed materially and there are no costs involved.

Is there anything else that you should know or do?

- You can contact me, Elmarie Jansen van Vuuren at 072 147 5308 if you have any further questions or have any problems.
- You can also contact the North-West University Education, Management and Economic Sciences, Law, Theology, Engineering and Natural Sciences Research Ethics Committee via Mrs Villera Le Roux at 018 299 4707 or villera.leroux@nwu.ac.za if you have any concerns that were not answered about the research or if you have complaints about the research.
- You will receive a copy of this information and consent form for your own purposes.

Declaration by parent

By signing below, I agree that the classwork of my child..... may be used in the research study titled: Engaging school-going adolescents as peer educators about cannabis use: a participatory action research approach.

- I do give permission for my child to present their prevention messages outside of the classroom. ☐
- I do not give permission for my child to present their prevention messages outside of the classroom. ☐

- I do give permission for my child's identity to be revealed if he/she prefers to be recognised as the author/photographer of any work that he/she produces and is used by me for research and other academic purposes. ☐
- I do not give permission for my child's identity to be revealed if he/she prefers to be recognised as the author/photographer of any work that he/she produces and is used by me for research and other academic purposes. ☐

I declare that:

- I have read this information/it was explained to me by a trusted person in a language with which I am fluent and comfortable.
- The research was clearly explained to me.
- I have had a chance to ask questions to the researcher and all my questions have been answered.
- I understand that agreeing to have their work used as data is **voluntary** and neither myself nor my child has not been pressurised to consent to this.
- I may withdraw my consent at any time.
- My child may be asked to leave the study before it has finished, if the researcher feels it is in the best interest, or if he/she does not follow the study plan, as agreed to.

Signed at (place) on (date) 20....

.....
Signature of parent

.....
Signature of witness

Declaration by researcher

I (name) declare that:

- I had it explained by a colleague who I trained for this purpose.
- I did/did not use an interpreter
- I encouraged him/her to ask questions and took adequate time to answer them.
- The informed consent was obtained by an independent person.
- I am satisfied that he/she adequately understands all aspects of the research, as described above.
- I am satisfied that he/she had time to discuss it with others if he/she wished to do so.

Signed at (place) on (date) 20....

.....
Signature of researcher

Dear [REDACTED] parents and guardians

I would like to bring the following item to your attention:

Chosen theme to reach the outcomes of the term

Your child is in my Grade 7 English class, and I have chosen the dangers of dagga as a theme to help them reach the outcomes of this term's spoken, written, and presentation skills in English.

As we all know, dagga use is a serious health-related issue in our community. The integration of this topic in the assessment tasks will also help to educate your child about the dangers of dagga abuse, which is pertinent not only for now but to prepare them for high school next year.

Please be aware that the assessment tasks will only focus on the physical, mental and social dangers of this substance and not on any personal or observed experiences.

I hope this letter gives you an overview of the chosen theme. If you have any questions, feel free to contact the office and I'll phone you.

Yours sincerely

Elmarie Jansen van Vuuren

Ref: 9405260343084
Enq: Lekola R.K.
Tel: 014 718 1500
Email: lekolark@edu.limpopo.gov.za

2020 June 04

Ms. Janse Van Vuuren E
PO BOX 19
Swartklip
0370

RE: APPLICATION TO CONDUCT RESEARCH IN THE WATERBERG DISTRICT SCHOOLS, LIMPOPO

1. Receipt of your letter bearing on the above subject is hereby acknowledged.
2. In response thereto, please be advised that permission to conduct research in Engaging school-going adolescents as peer educators in education about cannabis use Waterberg District Schools is hereby granted subject to the following conditions:
 - ❖ That the interviews will be conducted outside school working hours and will also not interfere with teaching and learning in schools.
 - ❖ The research will not have any financial implications for the Limpopo Department of Education.
 - ❖ The interviews will also depend on the willingness of Principals / Educators and SGB to be interviewed.
 - ❖ Upon completion of the research study, the researcher shall share the final product of the research with the Department.
3. The District appreciates the contribution that you wish to make and wishes you success in your research.
4. Regards.


District Director
Madela SJ



Dear Ms E Janse van Vuuren

Request for research to be conducted at Platina Primary School

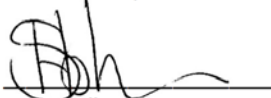
Your request to conduct your research on Engaging school-going adolescents as peer educators in education about the dangers of cannabis use: a participatory action research approach, has been reviewed by the School Governing Body during a meeting on 1 June 2020.

During a discussion regarding your request, the School Governing Body Chairperson along with its present members, Mrs S Holloway, approves your request and wish you all the best in your research.

We would also like to wish you the best of luck in this aspect and should you require any assistance from our side, to feel free to ask.

Should you have any additional queries, please don't hesitate to contact me.

Yours faithfully,

A handwritten signature in black ink, appearing to be 'S Holloway', written over a horizontal line.

Mrs S Holloway
SGB: Chairperson

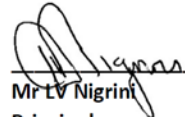
To whom it may concern,

Ms E Janse van Vuuren is a dedicated educator at [REDACTED] and it would be my honour to grant her the opportunity to make use of our school for her required project.

Therefore as the Principal of [REDACTED] I give her permission to fulfil her research project.

Should she require any assistance, I will be more than willing to help.

Yours faithfully,



Mr LV Nigrini
Principal



Private Bag X6001, Potchefstroom
South Africa 2520

Tel: +2718 299-1111/2222
Web: <http://www.nwu.ac.za>

**North-West University Education, Management
and Economic Sciences, Law, Theology,
Engineering and Natural Sciences Research
Ethics Office (NWU-EMELTEN-REC)**
Tel: +2718 299 4707
Email: lukas.meyer@nwu.ac.za

17 April 2020

Dear Prof Wood

APPROVAL OF YOUR APPLICATION BY THE NWU-EMELTEN-REC

Ethics number: NWU-01101-20-S2

Kindly use the ethics reference number provided above in all correspondence or documents submitted to the NWU-EMELTEN-REC secretariat.

Study title: Engaging school-going adolescents as peer educators about cannabis use: a participatory action research approach

Primary Investigators: Prof Lesley Wood

Student: Ms. Elmarie Janse van Vuuren

Application type: Single Study

Risk levels: Greater than minimal with the prospect of direct benefit

You are kindly informed that your application was re-reviewed and approved and will be formally ratified at the NWU-EMELTEN-REC meeting to be held on 11 May 2020.

The commencement date for this study is 17/04/2020 and is dependent on fulfilling the conditions indicated below. Continuation of the study is dependent on the receipt of an annual monitoring report and the concomitant issuing of a letter of continuation up to a maximum period of one year when extension will be facilitated during the monitoring process.

After ethical review:

Translation of the informed consent document to the languages applicable to the study participants should be submitted to the NWU-EMELTEN-REC (if applicable).

The NWU-EMELTEN-REC requires immediate reporting of any aspects that warrants a change of ethical approval. Any amendments, extensions or other modifications to the proposal or other associated documentation must be submitted to the NWU-EMELTEN-REC prior to implementing these changes. Any adverse/unexpected/unforeseen events or incidents must be reported on either an adverse event report form or incident report form.

A monitoring report must be submitted within one year of approval of this study and before the year has expired, to ensure timely renewal of the study. A final report must be provided at the completion of the study or the NWU-EMELTEN-REC must be notified if the study is temporarily suspended or terminated. The monitoring report template is obtainable from the NWU-EMELTEN-REC Office at Ethics-EMELTEN-mon@nwu.ac.za. Annually a number of studies may be randomly selected for an external audit.

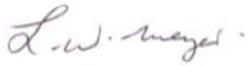
Please note that the NWU-EMELTEN-REC has the prerogative and authority to ask further questions, seek additional information, require further modification or monitor the conduct of your research or the informed consent process.

Please note that for any research at governmental or private institutions, permission must still be obtained from relevant authorities and provided to the NWU-EMELTEN-REC Office. Ethics approval is required BEFORE approval can be obtained from these authorities.

The NWU-EMELTEN-REC complies with the South African National Health Act 61 (2003), the Regulations on Research with Human Participants (2014), the Ethics in Health Research: Principles, Structures and Processes (2015), the Belmont Report and the Declaration of Helsinki (2013).

We wish you the best as you conduct your research. If you have any questions or need further assistance, please contact the NWU-EMELTEN-REC Office at Ethics-EMELTEN@nwu.ac.za.

Yours sincerely



Prof Lukas Meyer

Chairperson NWU-EMELTEN-REC

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Date: 9 April 2019

File Reference: 9.1.5.4.1

APPENDIX G: DECLARATION OF LANGUAGE EDITOR

PROOF OF LANGUAGE EDITING

Dr. L. Hoffman, APed (SATI), APRed (SAVI)

Kroonstad

BA, BA(Hons), MA, DLitt et Phil

Accredited Professional Text Editor – English and Afrikaans (South African Translators' Institute)

Member of the South African Translators' Institute

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DECLARATION

To whom it may concern

I hereby confirm that I have proofread and edited the following dissertation, including the references.

Title of dissertation

Engaging school-going adolescents as peer educators about the dangers of cannabis use: a participatory action research approach

Candidate

Elmarie Jansen van Vuuren



Lariza Hoffman
Kroonstad
15 December 2020