DEPARTMENT OF ENVIRONMENTAL SCIENCES

MSc ENVIRONMENTAL MANAGEMENT

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Commuting to school in semi-rural KwaZulu-Natal: characteristics, causes and consequences

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Abstract

The Umnini Tribal Authority is a poor, semi-rural area in KwaZulu-Natal, governed by a local chief. This study set out to determine school commuting patterns in relation to school choice and socio-economic status (SES) in the area. Mixed methods were used, involving a parental questionnaire survey, interviews, focus groups and a field audit with photographs. Overall, almost all learners enrolled in the seven 'no-fee' state primary (four) and high schools (three) under study were found to be Black African, IsiZulu speakers, and generally ‘extremely poor’ to ‘very poor’. Most households are headed by single mothers who have completed high school but are unemployed. Most households rely on government social grants to some extent. Most fathers were either absent, poorly educated to uneducated, and far less likely to be employed than the mothers. Children living with both parents, especially where the father was tertiary educated, and the mother employed, fell into the ‘less poor’ and ‘better off than most’ categories. In terms of school choice affordability, good teachers, good school management and proximity to home were the main drivers of enrolment. SES seems to have an impact on the amount of money spent on school lunches and school expenses, although there were some concerning exceptions. Primary school learners walked to school, but many parents pay for monthly transport. Some use the government-subsidised bus. High school learners tended to have longer and less safe journeys to school and back than primary school learners. This is especially true for boy learners, who are targets for criminals, drug addicts and, even worse, school bus drivers. Several challenges face all these learners en route to school every day: crime, unsafe and poor road conditions, roadworthy vehicles, long journeys and rough terrain. Primary school learners often get lost or left behind by their transport drivers. Fortunately, their teachers are actively involved in ensuring their safety and well-being – far more so than their parents, who seldom even know the name of the transport driver, let alone whether the vehicle is appropriate, roadworthy or licenced. High school learners were more likely to live in ‘extremely poor’ to ‘very poor’ households, a possible indicator that financially better-off parents are sending their high school children to schools outside of the area. It is recommended that the local tribal authority, the provincial government, the schools, parents and drivers need to work in unison to make the school commute simpler and safer.

Keywords: school commuting, school choice, school transport, learners, Umnini Tribal Authority, active commuting.

DECLARATION

Name: Nomfundo Nala

Student number: 51555190

Degree: Master of Environmental Science

Title: **COMMUTING TO SCHOOL IN SEMI-RURAL KWAZULU-NATAL: CHARACTERISTICS, CAUSES AND CONSEQUENCES**

I declare that "**COMMUTING TO SCHOOL IN SEMI-RURAL KWAZULU-NATAL: CHARACTERISTICS, CAUSES AND CONSEQUENCES**" is my own work, and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I further declare that I submitted the thesis to originality checking software, and that it falls within the accepted requirements for originality.

I further declare that I have not previously submitted this work, or part of it, for examination at Unisa for another qualification, or at any other higher education institution.

N. Nala **December 2020**

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CHAPTER 1: INTRODUCTION

1.1. Introduction

South Africa has a history of racial discrimination and inequality, and this includes the education system. Although the apartheid government has been replaced by a democratic one, the after-effects of racial segregation and inequality in terms of access to resources is still prevalent, especially in rural areas (Lancaster, 2011; Machard & McKay, 2014). One such example is the Umnini Tribal Authority. This area suffers from low levels of service delivery, a lack of formal housing, and poor or absent infrastructure (such as roads, schools, clinics, and shopping centres (Nala, 2015). The history of South Africa left areas such as Umnini Tribal Authority underdeveloped and economically vulnerable. Availability of schools, safe roads and reliable transport for communities in semi-rural areas, is poor. Semi-rural communities also have challenges such as low educational completion rates of parents, which means that if they are employed, they usually earn low wages. A large number are unemployed and rely on government grants.

In this area, in order to access schools (both primary and high school), learners are forced to undertake a daily commute (Mkwanazi, 2014). Based on local and international studies on commuting to school, both the length and cost of this commute may result in poor academic achievement, high absenteeism and school dropout (Timperio et al., 2006). That is, the school commute has significant challenges, such as learners having to walk long distances, exposure to rain and heat, vulnerability to wild animals and criminals, vehicle accidents, fatigue and financial hardship (Nala, 2015).

1.2. Problem Statement

This specific study seeks to establish the extent to which learners in the Umnini Tribal Authority of semi-rural KwaZulu-Natal commute to school, and the impact of this commute. School commutes have financial and environmental impacts. Long commutes result in fatigue and inability to concentrate, and expose learners to crime (Molteno, 1988). Vartanian and Gleason (1999) noted that, up to that point, there was little research undertaken regarding learner commuting, and according to Rumberger and Lamb (2002) there is an absence of studies on active school commuting and its impact on the natural environment, and vice versa. Thus, the social, economic and environmental impacts of rural school commuting are largely unknown.

1.3. Justification for the study

This research project seeks to (a) understand the relationship between the provision of services such as schools and transport infrastructure, poverty, and the school commute, with the related consequences, and (b) identify commuting issues, including choice of transport, conditions of transport, suitability of the mode of transport used, and commuter safety.

1.4. Research Aims and Objectives

- To identify the school commuting patterns in the area (distance, time, cost, frequency, pattern, modal choice and SES (socio-economic status) characteristics of the commuting learners).
- To establish what factors may be driving a commute to school (school location, school choice, school availability, school affordability and cost, safety and availability of transport).
- To identify and analyse the impacts of the school commute.

1.5. Research Questions

Research Question 1: What are the factors that drive the school commute in the area under study?

Research Question 2: What is the nature (distance, time, cost, pattern, modal choice and SES characteristics of the commuting learners) of the school commute in the area under study?

Research Question 3: What are the impacts and challenges associated with commuting in the area under study?

1.6. Research Design and Methodology

A research design must be selected on its appropriateness in terms of bringing about an understanding of a complex issue. A case study looks at the relationship between detailed concepts and tries to identify the link between them – for example, the correlation between school affordability, school choice and commuting. The case study method is popular in social science studies for examining realistic situations. This case study is a good example thereof, because it interrogates the relationship between social, economic and environmental impacts

of school commuting in a semi-rural area. This is done by extensively focusing on one specific area and indicators (such as SES) that play a role in school choice, choice of transport, and the physical conditions under which school commuters travel (Cooper & Schindler, 2004; Leedy & Ormrod, 2009; Walliman, 2011). The types of case studies for the research in question utilise an illustrative method (illustrate characteristics of subgroups that are of interest), in order to facilitate comparisons and show environmental, social and economic impacts on school commuting in Umnini Tribal Authority. It is worth noting that this type of case study is primarily to inform the topic at hand (Patton & Cochran, 2002).

The study also used (self-reported) cross-sectional data collected from teachers, school managers, drivers, local leaders, parents, and learners over the age of 18 in public schools in the Umnini Tribal Authority area. The study involved a questionnaire survey for parents who have children enrolled in the primary and high schools – where a list of all commuting students was compiled, and contact details obtained, to contact parents and receive approval for the survey to be conducted. Other participants were part of structured interviews, and not issued with questionnaires as per the parents. With the assistance of the area Induna (tribal community leader), an attempt was made to identify the bus route for the government-subsidised bus.

- A mixed method of both open and closed questions was employed in the questionnaire. Additionally, the questions were pre-tested before the actual study transpired, in order to test the ability to answer the research questions at hand.
- In-depth interviews were conducted with teachers, parents, drivers, the local Induna, and selected learners over the age of 18 years. Snowball sampling was used to identify respondents for the in-depth interviews.
- Lastly, field notes and photographs were used to record the physical landscape of the commute (Cooper & Schindler, 2004; Leedy & Ormrod, 2009; Walliman, 2011).

1.7. Description of the Study Site

The Umnini Tribal Authority operates under customary laws with the Local Authority and Chiefs. This is a semi-rural area, due to having both rural and urban characteristics with services such as water, electricity, roads, and easy access to urban areas, according to StatsSA (2011)[1]. The area is located on the rural South Coast of KZN and consists of a group of small

[1] https://showme.co.za/durban/news/sizakala-centre-for-umnini-2/ Accessed 11/08/2019 at 23:53

communities: Umgababa; Ilfracombe; Msulwana; Inkangala; Danganya; Mgobhozini; Mfume; Mashiwase and Thoyana. It has a population of roughly 34 536 individuals (StatsSA, 2011)[2]. Learners enrol in one of four primary schools (Umagcino Primary School, Umgababa Primary School, Umnini Primary School and Isidiya Primary School) or one of three high schools (Umcothoyi High, Umnganiwakhe High and Esizibeni Comprehensive High) within the area. These schools are shown in Figure 1.1. Learners either walk or take a minibus taxi to school. Some use the recently introduced government-subsidised school bus[3]. Most residents of the area have low education and high unemployment rates, with many dependent on government social grants.

[2] https://umnini/durban/ethekwini/googlemaps/ Accessed 10/09/2018 at 11:00

[3] www.kznhealth.gov.za › gps › schools1 Accessed 06/03/2016 at 11:00

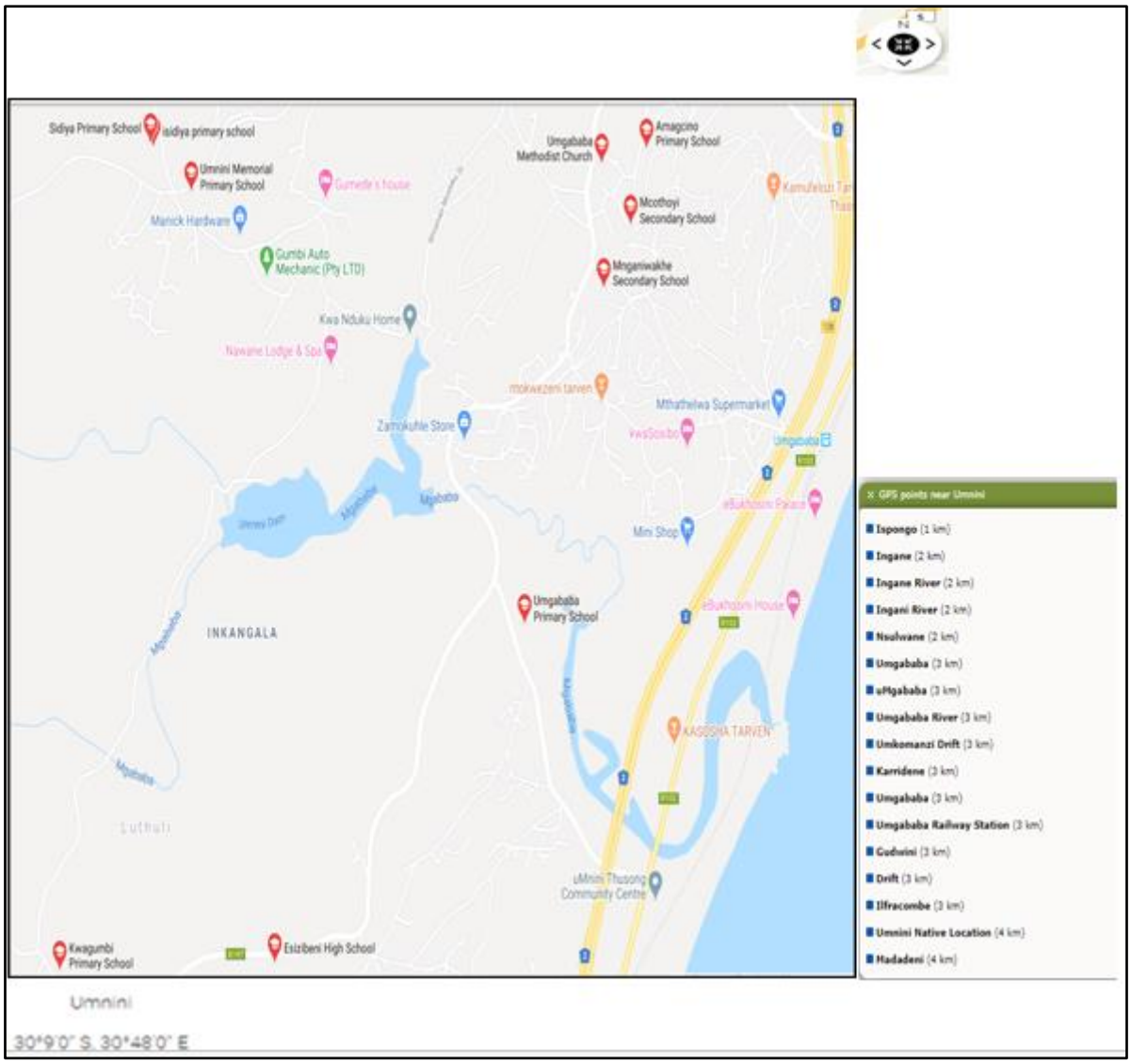

Figure 1.1: Location map identifying all schools under study with key roads featured. (**Imagery source**: Google Maps, 15 February 2020).

1.7.1. Primary schools under study

All primary schools fall under the educational district Umlazi and are 'no-fee' schools. 'No-fee' schools are schools that meet the standards and requirements set by the national 'no-fee' policy. Parents do not pay school fees, as the schools fall under a low socio-economic area (as deemed by the national government).

Umgababa Combined Primary School:

In 2017, according to the KwaZulu-Natal Department of Education, there were 650 learners enrolled in this school. It is a Quintile 3 school, with 19 teachers[4]. It is in Sappi Saiccor Road, Umgababa, Umkomaas, and falls under the Umnini Tribal Authority.

Figure 1.2: Umgababa Combined Primary School imagery. (**Imagery source**: Facebook page).

[4] All Quintile, teacher number, matric pass rate data for all the schools in the study are supplied by the DBE (see https://epages.co.za)

Figure 1.3: Umgababa Combined Primary School. (**Imagery source**: Facebook page).

Figure 1.4: Umgababa Primary School satellite view. (**Imagery source**: Google Maps, 10 July 2019).

Sidiya Junior Primary School (located in Umnini Tribal Authority):

In 2017, according to the KwaZulu-Natal Department of Education, there were 330 learners enrolled in the school. It is classified as a Quintile 4 school, with 7 teachers. It is in Imfume, Amanzimtoti.

Figure 1.5: Sidiya Junior Primary School. (**Imagery source**: Own).

Figure 1.6: Umnini and Isidiya Primary Schools. (**Imagery source**: Google Maps, 10 July 2019).

Umnini Memorial Senior Primary School (located at P728 Mfume Road):

In 2017, according to the KwaZulu-Natal Department of Education, there were 210 learners enrolled in the school. It is classified as a Quintile 4 school, with 5 teachers.

Figure 1.7: Umnini Memorial Primary School. (**Imagery source**: Own).

Amagcino Primary School (located in Umnini Tribal Authority):

In 2017, according to the KwaZulu-Natal Department of Education, there were 1,365 learners enrolled in the school. It is classified as a Quintile 4 school, with 34 teachers. It is in School Road, Umgababa, Amanzimtoti.

Figure 1.8: Amagcino Primary. (**Imagery source**: South Coast Sun newspaper).

1.7.2. High Schools Under Study

All the high schools fall under the educational district of Umlazi and are 'no-fee' schools for the same reasons as the primary schools.

Mnganiwakhe High (located in Umnini Tribal Authority):

In 2017, according to the KwaZulu-Natal Department of Education, there were 333 learners enrolled in the school. It has 12 teachers and is in Saiccor Rd, Umgababa, Amanzimtoti. In 2017, 19 learners wrote matric, with an 84.2% pass rate.

Figure 1.9: Umnganiwakhe High School. (**Imagery source**: Own).

Umcothoyi High (located in Umnini Tribal Authority):

In 2017, according to the KwaZulu-Natal Department of Education, there were 674 learners enrolled in the school. It has 22 teachers, and is located at 35 11854 Umgababa, Winkelspruit. In 2016, 44 learners wrote matric, with a pass rate of 65.9%.

Figure 1.10: Umcothoyi High School. (**Imagery source**: Google imagery, 18 February 2020).

Figure 1.11: Umcothoyi High School. (**Imagery source**: Google imagery, 18 February 2020).

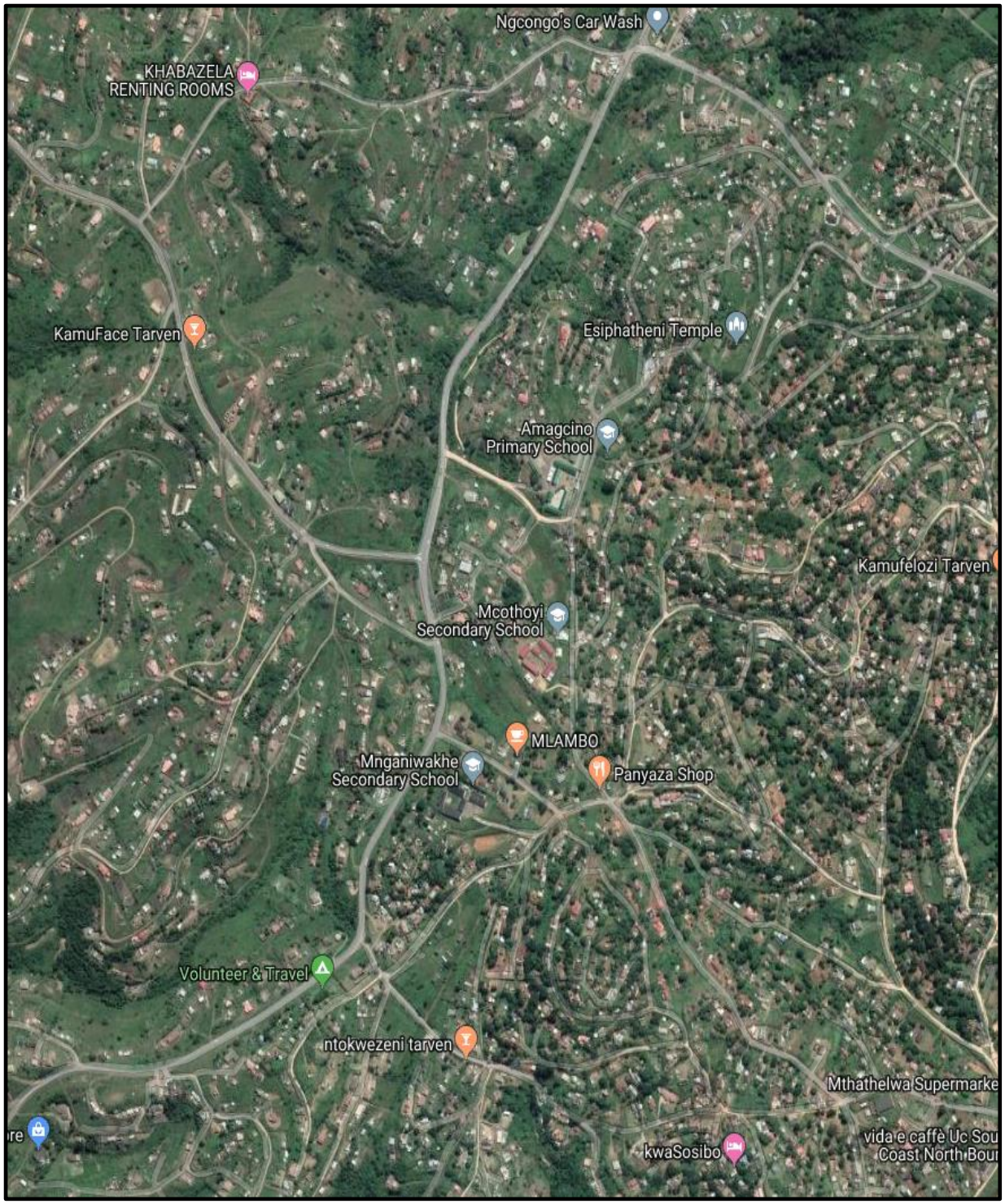

Figure 1.12: Amagcino Primary, Umcothoyi High School and Umnganiwakhe High Schools. (**Imagery source**: Google Maps, 10 July 2019).

Esizibeni Sivananda Vaswani Comprehensive High (located in Umnini Tribal Authority):

In 2017, according to the KwaZulu-Natal Department of Education, there were 1,301 learners enrolled in the school. It has 51 teachers and is located on the R197 in Inkangala, Luthuli, Umgababa. In 2019, 139 learners wrote matric, with an 82% pass rate.

Figure 1.13: Esizibeni Sivananda Vaswani Comprehensive High School. (**Imagery source**: Facebook page).

Figure 1.14: Esizibeni Sivananda Vaswani Comprehensive High School. (**Imagery source**: Facebook page).

Figure 1.15: Esizibeni Sivananda Vaswani Comprehensive High School. (**Imagery source**: Google Maps, 10 July 2019).

1.8. **Overviews of the Chapters**

The following chapter, Chapter 2, introduces the concepts of school dropout, substance abuse, educational inequalities, reasons for school choice and school commuting patterns. The chapter also looks at dynamics that may influence school choice and the socio-economic status. Chapter 2 also provides a theoretical background to the study. Chapter 3 gives a description of the research process and the stages of the research process. Chapter 4 focuses on primary school data, while Chapter 5 focuses on high school data and then, discusses the findings of the study in detail related to high schools. Chapter 6 is an integration of interviews with school representatives, commuting learners above the age of 18 years, local leaders or representatives, drivers that influence the commuters' mode of transport, and focus groups. Chapter 7 provides the physical environmental data that can influence commuting patterns and impact the challenges identified in previous chapters. Chapter 8 provides an integrated discussion of all findings made from primary school data and analysis, high school data and analysis, interviews as described above and physical data. Chapter 9 completes the study by giving a summary of the overall research, emphasising the limitations of the research and providing recommendations for future research.

CHAPTER 2: LITERATURE REVIEW

2.1. Introduction

This chapter provides an overview of appropriate literature where the South African history, Socio-economics, third world challenges and commuting patterns are discussed to explore the research available relating to school commutes, safety and health effects.

In South Africa, one cannot speak of rural development and not include spatial segregation – which resulted in the formation of 'deprivation traps' in most rural areas across South Africa (Ellis, 1997; Lankford & Wyckoff, 2005). In such areas, access to basic needs such as health facilities, education and other social structures, is weak. For example, poor road conditions can lead to isolation and long hours spent travelling, as schools and health centres are often distant. This is known as transport poverty (McKay, 2020). As a result, South Africa has unusual commuting patterns, where children take extraordinarily long journeys to get to school and back (Lancaster, 2011). While most South African children walk to school, many must cover 10 km (there and back) to do so. Others use minibus taxis, municipal buses, subsidised buses or private transport vans, to access school (Maile, 2004; Fataar, 2007; Soudien, 2007; Msila, 2008). A few use bicycles (McKay, 2020). Part of the cause of the long commute is not merely poor development of roads and fewer schools in rural and semi-rural areas; it is also driven by school choice (Lam, Ardington & Leibbrandt, 2011). That is, some learners commute for "better quality" education (Fataar, 2007; Bell & McKay, 2011). Often better options for school choice is available to financially better off parents (Gratz, Nation, Schools & Kurth-Schai, 2006).

2.2. Active versus passive commuting to school

According to Lu, McKyer, Lee, Ory, Goodson and Wang (2015), active commuting is walking and cycling. Passive commuting is the use of vehicles to get to school. Active school commuting patterns are influenced by different factors, some of which are adjustable through intervention. Lack of physical activity, brought on by passive commuting, may have unfavourable health effects such as obesity. That being so, an emerging interest in active commuting to school has developed worldwide (Lu et al., 2015). Active commuting has a

positive impact on children (Discovery Health, 2019[5]). Tracking of active learners has shown that physical activity increases school performance and increases participation in extra-curricular sport activities. These are likely to be studies done on middle class (or higher) socio-economic status learners. The main objective is to mention that poor communities with different commuting patterns were unlikely to be covered in such studies. Which there is a Gap to learn about active verses passive commuting for poor communities. Which lead to such case Poor communities with different commuting patterns were unlikely to be covered in such studies, as poor learners lend to have to walk far to school. Young children walking long distances can strain their developing bodies, which forms part of the unfavourable consequences. Thus, an active commute is good for children's health, but can be negative if it is long or unsafe (Robertson-Wilson, Leatherdale & Wong, 2007; Van Ommeren & Gutiérrez-i-Puigarnau, 2011).

Hagg (2015) and Tigre, Sampaio and Menezes (2017) feel that active commuting is financially sustainable but acknowledge that walking or cycling to school is usually a function of proximity, access (to bicycles for example) and affordability. Additionally, findings across different age groups confirm the importance of the social, physical, and neighbourhood environment, on commuting choices. Peers participating in active commuting may promote active commuting for the rest of the school population (Børrestad, Anderson & Bere, 2010; Panter, Jones, Van Sluijs & Griffin, 2010; Carrasco & San Martín, 2012). Walking in groups also represents safety in numbers and company on the route; however, dangerous road crossings, crime and parents' perceptions of safety inhibit active commuting. These findings highlight the importance of initiatives that promote active commuting such as "walking school buses" (McKay, 2020).

School policies should also promote walking and cycling (Maile, 2004; Panter et al., 2010; Marshall, 2011). Carter and May *(*1999) recommended that policies should focus on the quality and safety of public spaces, and consider initiatives such as mutual, collective pick-up points for learners. Kalloway (1997) argued that, on a regional scale, policies concerning school location should be studied in relation to policies for communal transport to ensure shorter

5 https://www.discovery.co.za/microsites_za/vitality_schools/web/linked_content/pdfs/general/healthy_active_kids_report_book_web_optimized.pdf Accessed 06/12/2016 at 15:13

distances to and from primary schools, and greater use of public transport for secondary and tertiary institutions. Policies that require parents to choose schools in their neighbourhood could also reduce the energy consumption and air pollution associated with school commuting. Where a large share of school trips is made by private vehicles, there will be a clear impact on traffic. Trips also impact on time spent in traffic, with lost productivity, as well as damage to human health and the environment (Sorek, 2009).

Ellis (1997) claimed that cultural views influence school commuting patterns. Elias and Katoshevski-Cavari (2011) raise the point of how cultural perceptions may influence commuting patterns. This was particularly notable in Jewish and Arab populations in Israel, for example. One could extrapolate that, apart from economic factors, family background and class, culture and gender can all play a role in commuting patterns. Evans and Cleghorn (2014) also argue that culture may influence school choice. These cultural views include perceptions on how important school is, traffic safety, distance to school from residence, family size, number of cars available in the household, possession of drivers' licences in the household, and parents' work schedules (Fleisch & Woolman, 2004; Fishel & Ramirez, 2005; Carnoy & Chisholm, 2008; Du Toit, 2008; Erickson, 2017). Accordingly, effective policies and strategies are required, in order to allow safe and sustainable active travel to school (Kalloway, 1997; Carter & May, 1999; Panter et al., 2010). The patterns and predictability of school commute trips can be affected by assistance policies, services and infrastructure that collectively work to reduce the negative impacts associated with commuting, such as public transport provision (Nattrass & Seekings, 2001; Sorek, 2009; Machin & Salvanes, 2010).

According to Rodriguez-Rodriguez, Jara, Kuthe, Colmenero, Ramírez-Vélez and Chillón (2019), the main barrier for active commute to school is distance and age. International studies have shown that between the ages of 11 and 12 years, most children will commute about 1.5 km, while those who are between 17 and 18 years, will commute at least 2 km. Thus, the further a school is from home, the less likely it is for adolescents to actively commute. This is likely to have significantly negative long term health effects. This is a global trend noted in countries such as Belgium, Britain, Spain and the USA, for example. As a result, the urban planning and cultural perceptions of active commuting is influenced by what is deemed a reasonable walkable distance.

2.3. Issues associated with commuting to school

Although both genders fall prey to crime when commuting to school, those travelling from far are the most at risk. That is, lengthy travel times mean that learners are more likely to be vulnerable to assault and crime (Lancaster, 2011). Worryingly, commuting can result in learners dropping out of school if they find the commute fatiguing, if they encounter crime and violence on the way to school, or if transport is poor or expensive (Van Ommeren & Gutiérrez-i-Puigarnau, 2011; Boyes, Berg, & Cluver, 2017).

The association between waking up early, negative peer pressure (drug use, alcohol use, and adolescent sexual promiscuity), and distance travelled to school seems to have a notable impact on the concentration span and energy capacity of learners. The longer the distance is to school, the more likely it is to affect the learner negatively, according to South, Haynie and Bose (2005) and Marshall (2011). That is, schools with many commuting learners may have a generally higher dropout rate than those without, even when there is evidence of attempts to manage the distance of the commute. For those learners who commute, transport strikes, extreme weather conditions and poor roads can make it difficult to attend school. The racial group in South Africa most affected by severe school commuting patterns (walking 5 km or more) is Black African (McKay, 2019).

Gobind (2018) argues that due to the nature of South African transport systems, commuters are prone to anxiety that can potentially affect their performance in the workplace due to varying factors including commuting discomfort, poor commuting conditions, and the distance of the commute. The same could be assumed for school commuters, where the anxiety of having to wake up early and use different types of transport to get to school (for those who travel from townships to suburban areas), can result in increased anxiety and perhaps a negative impact on their school performance. Timperio et al. (2006) argue that family background (single parent vs dual parental homes) plays a role in both commuting behaviours and school attendance, as does the financial standing of the parents, along with support structures and the form of transport they use.

According to Vartanian and Gleason (1999) and Zoch (2017), the educational background of a child's parents plays a role in school success. The higher the level of education of the parents, the less likely the child is to drop out of school. Studies by Phillips and Karn (1991), South et al. (2005) and Boyes et al. (2017) show that the residential area, and ability to move from one

area to the next, can also influence whether the child stays at school or not, since easy access to school plays a role in school attendance. There is evidence that commuting affects overall learner achievement (South et al., 2005; Marshall, 2011). Participation in extra-curricular activities such as sports can reduce school dropout, as greater social assimilation in both school and non-academic clubs positively impacts on retention rates (Marshall, 2011; Branson,Hofmeyr & Lam, 2013). Learners who commute long distances may show lower levels of participation in extra-curricular activities in general, increasing the potential for them to drop out of school.

Long distances and lack of personal safety leave learners vulnerable and may negatively affect their academic performance. This is specifically due to fatigue, and consequences arising from poor commuting conditions, including exposure to the elements, which could, for example, result in school material and textbook damage. There are also numerous cases of young children being swept away by water while trying to cross swollen and dangerous rivers[6]. Further, there is also a concerning trend of school learners going missing on their way to school or back from school[7]. This is especially the case when parents rely on public transport to transport their children to school.

Some of these problems end up on the national news. For example, in late 2019, media reported distressing imagery where patrolling traffic officers pulled over a dangerously overloaded minibus that was carrying nearly 50 learners to school (Njilo, 2019)[8]. This was not an isolated incident. In 2020, a similar case in Limpopo was reported, where 46 school learners were found inside a 14-seater Toyota quantum minibus taxi. Such actions leave school learners vulnerable to accidents, such as the accident in 2017 in Umlazi KwaZulu-Natal where an overloaded minibus taxi lost control, killing four learners, and injuring a further 16 (Mngoma, 2017)[9].

[6] https://www.news24.com/SouthAfrica/News/3-kzn-pupils-drown-trying-to-cross-flooded-river-20180517 Accessed 28/02/2020 at 17:06

[7] https://www.news24.com/news24/southafrica/news/search-continues-for-cape-town-girl-who-went-missing-en-route-to-school-20200713 Accessed 23/07/2020 at 9:54

[8] https://www.timeslive.co.za/news/south-africa/2019-02-20-watch--nearly-50-pupils-crammed-into-taxi/ Accessed 16/01/2017 at 09:10

[9] https://www.iol.co.za/news/school-taxi-in-horror-crash-was-overloaded-7384785 Accessed 28/02/2020 at 09:10

According to the National Land Transport Act No. 5 of 2009[10], which regulates paid school transport, there are specific guidelines to which those transporting school children need to adhere. These rules include an additional licence requirement, issued by the provincial regulatory authority, which must be renewed every two years, and is subject to a fee. Vehicles transporting scholars must be less than 12 years old, and licenced, and are to undergo a roadworthy test every six months. Additional requirements include a first aid certificate, a professional driving permit, and an ID document that indicates the drivers' full names, ID number, and full details of the vehicle to ensure the driver and vehicle can be easily identified[11].

Walking to school can also be dangerous from a traffic perspective. More than a third of road fatalities in South Africa involve pedestrians, often due to reckless driving and un-roadworthy vehicles. Pedestrians seldom know the rules of the road (in terms of who has right of way, and where to safely cross a road, for example). Pedestrians are often forced to walk in high-risk zones (such as walking on, near or across highways) and engage in risky behaviour, such as walking while intoxicated[12]. Such behaviour includes not using designated bridges, as most bridges are inconveniently placed, relative to where pedestrians need to be[13].

Initiatives such as the walking bus project in Cape Town, which, when correctly implemented, can assist with walking safety for learners (McKay, 2020). Walking buses are adults escorting a group of children to school and back every day. This project was motivated by an increase in gang activities, which meant that school commuters felt unsafe; therefore, they needed protection to get to school[14]. By introducing supervised trips to and from school communities, children are now less exposed to crime[15]. This is an important aspect of research, namely

[10] https://www.iol.co.za/capeargus/motoring/parents-urged-to-ensure-vehicles-transporting-their-kids-to-school-are-roadworthy-40675212 Accessed 02/03/2020 at 14:10

[11] https://www.gov.za/sites/default/files/gcis_document/201409/32110413.pdf Accessed 28 Feb 2020

[12] https://www.arrivealive.co.za/Commuters-and-road-safety-in-South-Africa Accessed 28/02/2020 at 17:40

[13] https://www.wheels24.co.za/News/Guides_and_Lists/pedestrian-safety-needs-urgent-attention-in-sa-aa-20160523 Accessed 28 Feb 2020

[14] https://www.danielrrosen.com/safety-on-way-to-school/ Accessed 28/02/2020 at 17:31

[15] https://www.saferspaces.org.za/be-inspired/entry/walking-bus-initiative Accessed 28 Feb 2020

children geography, which is how children interact with, and experience, space, community and travel, that suggests spaces should be planned with children in mind (Freeman, 2020).

One cannot speak of the challenges associated with school commute and not mention late attendance, which, according to Maile and Olowoyo (2017), contributes towards poor performance. When learners are late, it takes time away from teaching, and missed lessons are seldom recovered. Late coming has a ripple effect on the education system. This is a substantial problem amongst high school learners in township schools. Some of this behaviour is linked to the mode of commute the learner may be using, where walking to school can be affected by change of season, or by those who are transported to school. There could be numerous drop-off points that delay the commute, making leaners late for school. Inclement weather, inoperative traffic lights, and traffic accidents due to reduced visibility caused by compromising weather conditions, can all influence late attendance by learners.

2.4. School choice and commuting

Crankshaw (1997) and Boyes et al. (2017) mention that poverty influences school dropout and performance in South African adolescents. Due to past inequalities, poverty-stricken areas have unique challenges to address. Crankshaw (1997) argued that class and racial inequalities influence service delivery in previously disadvantaged areas, which affects educational performance. Shah, Atta, Qureshi and Shah (2012) raise the point that lack of resources in township schools hinders development, compared to their peers in former Model C and private schools. These poorer schools often have no libraries, science laboratories, or even properly qualified teachers (Bell & McKay, 2011; Shandu, Evans, & Mostert, 2014; Wiener, 2017; Wills, 2017; Wilson & Bridge, 2019). According to Parker and De Kadt (2018), high inequality in societies extends to education, and creates a cycle of poverty, which limits intergenerational mobility. That is levels of education influence social mobility; thus, some parents choose to send their children to schools further away from home, often to their financial and social detriment, but worth it in their view, as the school is seen as a ‘quality’ one (Stein, 2015).

DeAngelis and Erickson (2018) argue for school choice, where parents can choose to send their children outside of their neighbourhood, in order to access better quality education. According to Bell (2007), Bifulco, Ladd and Ross (2007), Hall and Giese (2008), Bell and McKay (2011), Amsterdam, Nkomo and Weber (2012) Brunner, Cho and Reback (2012), Bunar and Ambrose (2016), Ayscue, Siegel-Hawley, Kucsera and Woodward (2018) and Brandén and Bygren

(2018), learners travel from townships to former Model C schools in the belief of better prospects for their future. Parents make tremendous financial sacrifices for their children to this end. Gratz et al. (2006), Deluca and Rosenblatt (2010) and Elacqua (2012) argue that South African school commuting patterns mirror international patterns, in terms of the financial class of commuting and the role parents play in school choice. That is, unless learners can access better-resourced schools, they are forced to enrol in under-resourced, weaker schools instead[16]. The long-term consequences of this are that learners often emerge from these schools as unemployable and unable to access post-school education (Wacquant & Wilson, 1989; Fataar, 1997; Weber, 2002; Lemon, 2004; Bifulco et al., 2007; Soudien, 2007; Lemon & Battersby-Lennard, 2009; Yang, Abbott & Schlossberg, 2012; Machard & McKay, 2015: Owens, 2017, 2018; Pearman & Swain, 2017).

Bhorat (2004), Hunter (2010) and Rowe and Lubienski (2017) all argue that the combination of high cost (relative to income) of education and poor educational outcomes, is entrenching poverty in the 'truly disadvantaged' learners. Learners in weak schools have little hope of achieving upward class mobility. Dala (2009) argues that the lack of resources in rural schools leads to poor academic performance, creating a vicious cycle of poverty entrapment. Poor academic results in secondary school can lead to school dropout, inability to continue to tertiary education levels, and inability to gain scarce skills that can bring about economic independence. Dala (2009) also mentions the importance of nutrition, and how feeding schemes should not only focus on issuing food to primary schools, but also secondary schools, so as to avoid older learners from having to work after school to provide food for the family – which can also limit their time to do their school work.

Rural school learners tend to find the curriculum unrelated to their reality, which decreases the desire to learn. Lack of support from parents also makes staying in school difficult, as responsibilities, and a need to assist the family financially, become too much for a secondary school learner to stay at school (Dala, 2009; Du Plessis & Mestry, 2019). Lack of resources such as electricity, infrastructure, water and decent roads make it hard for rural schools to attract well-skilled teachers. This makes it difficult for rural schools to compete with well-

[16] http://theconversation.com/the-long-and-short-of-south-african-school-commutes-a-case-study-98897 published July 1, 2018 10.38am SAST Accessed 12/10/2019 at 21:30

developed areas and has a direct impact on academic performance of rural schools (Dala, 2009). Vasconcellos (1997) argued that the relationship between distance and schooling is critical in rural areas, where schools are widely dispersed, and access to higher grades or better-quality schools is far less achievable than in urban areas. The lack of public transportation, and the inability of parents to afford private transportation, only makes matters worse. In most cases, rural schools offer lower-grade schools, and there is an increase in commuting to urban areas for higher grades.

Du Plessis and Mestry (2019) argue that because teachers in rural schools are expected to teach multiple grades, different subjects, and even different grades together in one class[17], it has serious repercussions for teachers and, consequently, their learners' academic performance. Consequences of these non-mitigating constraints include difficulty compiling lesson plans, inability to balance time between different grades, and struggles conducting adequate assessment tasks while simultaneously maintaining discipline in the classroom with children of varying ages. At times, this can lead to teachers not conforming to the set curriculum or the use of contextual examples suitable for each grade. Another challenge to consider concerning teachers in rural schools is the inability to diagnose and assign special needs learners to appropriate classes and schools. Special needs learners are kept in the same class as others, and this can lead to school dropout for these learners, due to the lack of support for their learning disabilities.

2.5. Physical environmental impacts of commuting

Human activity has been shown to have an impact on the physical environment, such as increasing soil erosion (Garcia-Ruize, 2010; Goudie, 2013). Physical impacts of the environment include impacts on soil, vegetation and water – through different interactions, including biking, walking, motorbiking or horse riding. When walking or cycling, there is a high level of trampling outside the tracks, which unsettles the ground, damages and removes vegetation, and disturbs the soil. The increased use of tracks and pathways can result in poorly drained and highly organic soils turning into muddy areas (Cessford, 1995).

[17] This was the case for Sidiya Primary (a school under study) during data collection. Renovations were taking place, so teachers had to accommodate two grades at a time, in one class.

Unplanned or poorly planned routes also result in more damage (especially when people take shortcuts or easier tracks through vegetation), which only further impacts negatively on the soil (Garcia-Ruize, 2010; Goudie, 2013). Excessive erosion can enhance water flows and disturb soil surfaces on sloping sections of the track or drainage points across the pathways and tracks (Goudie, 2013). Soil damage is usually only observed in low-use areas, as with frequently used tracks, soil compaction and erosion are so far advanced that people no longer see the problem (Cessford,1995; Goudie, 2013).

2.6. Conclusion

Spatial segregation has contributed towards the deprivation trap found in most rural areas in South Africa, where access to basic needs and infrastructure is still lacking and proper facilities are a luxury. The financial status of communities tends to dictate commuting patterns, as more financially inclined parents have a better range of school options compared to poor parents. Children of poor parents are more likely to walk to school (even if it is a long distance) or select the nearest school. Those with resources can opt for passive commuting, reducing the impact of distance on school choice. The difference between active and passive commuting in the developed and developing world lies in the challenges faced. Richer countries tend to have greater levels of passive commuting, which result in unhealthy adolescents. Poorer comunities find that time-consuming active commutes can negatively affect concentration and school performance. Dangerous conditions such as uncontrolled transport minibuses, crossing rivers, and crossing bush make school commuters vulnerable to the elements and crime. Commuting to school, young girls are more prone to verbal abuse, crime and even sexual abuse. Coming up with adolescent-friendly solutions to combat the negative impacts of school commuting, is important (Timperio et al., 2006). This can be done by introducing safe walkways, for example (Kelly, 2007). Whereas the commuting impacts with learners in Western countries is mostly based on privilege, and the necessity for healthier options, the same cannot be said for the commuting in South Africa, due to the history of racial inequality and segregation (Bell & McKay, 2011).

CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY

3.1. Introduction

This chapter addresses the methodology adopted to conduct research in the Umnini Tribal Authority, the motivation for the study, guidelines followed to ensure ethical compliance, processes, objectives of the study, and research questions that drove the study. It also looks at the challenges experienced, the cost, the validity of the study, and statistical analysis processes used. The thesis looks at the relationship between the social, economic and environmental aspects of school commuting in a semi-rural area.

3.2. Research Design

The case study design was chosen, because it is a research design suited to offering clarity and understanding of a complex issue or object. A collection of comprehensive information was gathered from a small group or individuals to gain in-depth understanding. Emphasis was placed on exploring and describing the information found, in order to make sense thereof (Leedy & Ormrod, 2009).

A case study looks at the relationship between detailed concepts and tries to identify the link between them. It is popular with social science studies, as a method of research in examining real-life situations (Cooper & Schindler, 2004; Leedy & Ormrod, 2009; Walliman, 2011). Case studies assist in answering questions of 'when', 'why' and 'how'. It also helps in situations where a researcher has limited control over events they intend on investigating, or when a real-life situation is being researched. When using a case study as a research method, the researcher investigates the topic, specifically focusing on an overall understanding of the situation or event that is being questioned; therefore, this method is appropriate for field studies, ethnography and participant observations (Cooper & Schindler, 2004; Leedy & Ormrod, 2009; Walliman, 2011). There are different types of case studies, that vary according to the research results intended, including illustrative, exploratory (pilot), cumulative, and critical instance. This research uses an illustrative case study, to illustrate characteristics of subgroups of interest and to facilitate comparisons (Patton & Cochran, 2002).

3.3. Methodology

This cross-sectional study used self-reported data collected from teachers, school managers, parents, transporters (drivers) and learners over the age of 18 in public schools in the Umnini Tribal Authority area. The questionnaire survey was sent to parents who have children enrolled in the primary and high schools. The research was facilitated by the assistance of the area Induna (tribal community leader). The following are the research instruments, which were used to collect data for the case study.

- Parental survey: A mixture of both open and closed questions were used in the survey questionnaire. Questions were pre-tested in 2017 before the actual study occurred between 2017 and 2019, in order to test the survey's efficacy in answering specific research questions at hand. Stratified random sampling was used to identify participants, off parental registers from the schools.
- Semi-structured, in-depth interviews were conducted with teachers, school managers, the local counsellor, the local Induna, and selected learners over the age of 18 (for ethical reasons). Purposeful snowball sampling was used to identify respondents for the in-depth interviews (Leedy & Ormrod, 2009).
- Field notes, an audit sheet and photographs were used to catalogue the physical impacts of the commute on the natural landscape (Cooper & Schindler, 2004; Leedy & Ormrod, 2009; Walliman, 2011).

3.4. Ethics and Ethical Issues

Guided by the UNISA ethical standards, the study required that pre-approval be granted in order to proceed with data collection. The study could not be harmful to the participants and not mislead them, They could also not be identifiable herein. Adherence to the UNISA policy on research ethics required that the Department of Education policies for research be granted, prior to the school's approval. The importance of being sensitive towards circumstances that may arise which affect the research directly during conduction of the study, was acknowledged. Regulatory guidelines were followed, such as not interrupting the school curriculum, not disturbing teaching lessons or interfering with regular school programmes, and no research was to be conducted during exam periods. All research-related activities had to be scheduled ahead of time, during school lunch and after school, without keeping people too long, so as not to

cause participants to arrive home late and compromise their safety. Transparency throughout the research process ensured that participants were aware of their rights and were aware that they did not have to answer questions that they felt were unnecessary or uncomfortable to answer. For more on this, see Appendix E, the ethical clearance letter from Unisa.

3.5. Research Questions and Consistency Matrix

Research Question 1: What are the factors that drive the school commute in the area under study?

Research Question 1: Consistency matrix

This question was answered using questionnaire section number 1, which asked about residential area, question 3 that focused on grade, and question 4, which asked if the school was the closest option to participants. These questions, coupled with question 9 (reasons for school choice) and question 10, investigating the mode of transport used to get to school, and questions 11 and 12, that focused on duration taken to get to school and the distance travelled. All these questions, coupled with the SES score grouping, helped to understand the reasons behind the commuting patterns identified in the study.

Interviews with parents provided a vivid understanding of what leads to the mode of transport used by commuters, and interviews with participants over the age of 18 in focus groups. Questionnaires were then grouped according to schools and data captured in categories, and statistical data analysis systems were adopted to make sense of the captured data, while chapters 4, 5, and 7 were created to try and answer the question at hand.

Table 3.1: Tools and methods for RQ1. (**Source**: Own).

Tool	**Method**
Questionnaire questions: 1, 2, 4, 9, 10, 11, 12, 13, and 14. See Appendix A	Data capturing, excel spreadsheet, data analysis and statistical systems (standard deviation and three grouping system)
Interviews: recorded structured and unstructured questions. See Appendix B	Semi-formal parental interviews Focus group questions with over-18 learners Girls and boys had separate groups in different classrooms to allow for better communication.
Photos and observations See discussion on physical evidence collected	Requesting permission to follow commuters on their way home, observing their commute and taking notes. Taking pictures along route.

Research Question 2: What is the nature (distance, time, cost, pattern, modal choice and socio-economic status characteristics of the commuting learners) of the school commute in the area under study?

Research Question 2: Consistency matrix

In the questionnaire, there were sections that focused on residential area, school choice, proximity of the school and reason for school choice; these were the main identifying factors required in order to answer the research question. This led to follow-up questions 10 (how does the child travel to school?), question 11 (how long is the commute), question 12 (how far is the commute), and question 13 (reasons for mode of transport). Then, from question numbers 15 to 21, more focus was laid on the SES of the participants, and scores were allocated to this section of the questionnaire, in order to create categories for statistical analysis, which will be discussed in detail in chapters 4, 5 and 8.

Table 3.2: Tools and methods for RQ2. (**Source**: Own).

Tool	**Method**
Questionnaire questions: 1, 2, 4, 5, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 and 21. See Appendix A	Data capturing, excel spreadsheets, data analysis and statistical systems (standard deviation and three grouping system).
Interviews: recorded structured and unstructured questions. See Appendix B	Semi-formal parental interviews Focus group questions with over-18 learners Girls and boys had separate groups in different classrooms to allow for better communication.
Photos and observations	Requesting permission to follow commuters on their way home, observing their commute and taking notes. Taking pictures along route.

Research Question 3: What are the impacts and challenges associated with commuting in the area under study?

Research Question 3: Consistency matrix

Questions 15 to 21 of the questionnaire focused on identifying the SES characteristics of participants, in order to try and understand school choice and expenses associated with travelling to school, as well as mode of transport used to get to school. The reasoning behind this is that financial motivation plays a significant role in choices made by rural or disadvantaged areas. By understanding family dynamics, income, and level of education, it is

easier to identify why walking would be the most favourable mode of transport, as it has the least financial implication, compared to taking the bus or paying monthly transport.

Assigning scores to answers given to questions 15 to 21 allowed for standard deviation to be used in order to categorise the participants and identify challenges and impacts that can be directly linked to the SES and considered to be influential to commuting patterns. Interviews with parents, learners, teachers and drivers (public, subsidised bus, and monthly paid) were also conducted, in order to try and get a better understanding of challenges and impacts of school commutes, to link the answers in the questionnaires with responses given during recorded interviews.

Table 3.3: Tools and methods for RQ3. (**Source**: Own).

Tool	**Method**
Questionnaire questions: 15, 16, 17, 18, 19 20 and 21. See Appendix A	Data capturing, Excel spreadsheet, data analysis and statistical systems (standard deviation and three grouping system).
Interviews: recorded structured and unstructured questions. See Appendix B	Semi-formal parental interviews Focus group questions with over-18 learners Girls and boys had separate groups in different classrooms to allow for better communication. Individual interviews with parents, drivers, and Induna.
Photos and observations	Requesting permission to follow commuters on their way home, observing their commute and taking notes. Taking pictures along route.

3.6. Data Collection

Schools that took part in the case study were chosen based on location, accessibility and historical background of each school, from Umnini Primary and Umnganiwakhe High School, being the oldest schools in the area, to Esizibeni High School being the most recently built, in the early 2000s. The area is in the southern coast of KwaZulu-Natal, and close to developed areas such as Scottsburgh, Amanzimtoti, Athlone Park and Kingsburg (Winkelspruit). Permission was requested from the Department of Education in order to approach the schools, and for permission to gain access to learners and teachers. The Induna had to be informed, in order to relay the application to the area Inkosi, as the area falls under tribal authority. Data was collected during lunch breaks, and only learners over the age of 18 participated. The teachers helped to identify suitable candidates from each school. All participants were willing to be part of the study, apart from the taxi association, though they gave permission to approach

drivers individually during their free time while waiting to load at the rank or located at ‘downtime’ areas. A door-to-door approach was used for parental surveys to ask for access into their homes and finding out which schools the children in the household went to, in order to identify suitability of the household prior to engaging in the surveys. Bus drivers were the most convenient to locate, as they stated they are meant to wait outside each school they transport, from the morning until school is over, so during their wait they had time to engage.

3.7. Data Analysis

Due to the mixed method, data analysis required an Excel spreadsheet to record all the data from the questionnaires, which was then separated according to the research questions to identify which data related to which question. This process shed light on general information about schools, distance, time and costs associated with commuting and school expenses. Then, the SES category was investigated, which sought to gain insight into the financial situations faced by participants, and trends that were picked up through SPSS statistical analysis (such as single parent households being predominant in the 'extremely poor' group, and those with both parents being dominant in the 'not so poor' or 'better than most' in the groups). This part of the research was done with the aid of a statistician (Hennie Gerber). Part of this involved the use of Chi-square. For the qualitative data, codes, tables, and graphs were collated in order to better elaborate the data analysis with visual representations. As the interviews were held in IsiZulu for better interaction, scribing and translation from recordings to scripts had to be undertaken, in order to gain a clearer understanding of the ideas presented by participants.

3.8. Objectivity, Reliability and Validity

The objective of the study was controlled by pre-tested survey questions, where the results from the pilot showed the ability to engage and obtain results to answer the aims of the research project. The surveys used resulted in the data analysed in chapters 4, 5 and 6, where all three chapters corresponded with each other, and the interviews gave clarity of how participants experienced their commute, school choice, school costs, and any challenges they felt needed to be addressed. Given the fact that the interviews were conducted in the comfort of the participants’ homes, participants had the freedom to share exactly what they felt was of significance that related to the research. Photographic evidence also corresponds with concerns raised by participants, as observations and audit sheets guided the ability to conduct research that was objective and aligned with the aims. The data is reliable, as it speaks to literature and

research that has been done on school commuting patterns as portrayed in the literature review in Chapter 2. Due to the recent high number of accidents involving school commuters, this unfortunate trend has resulted in concerns being raised as to how safe the modes of transport used by school commuters really are. This was the topic of discussion on the lunchtime slot on Metro FM (a radio show called *Lunch with Thomas and Pearl*) on 24 February 2020, when they discussed overcrowding incidences reported in Limpopo, where a minibus taxi meant for 14 passengers was carrying 56 school commuters, and the fatal accident in Pretoria that left two school commuters dead and more injured, on their way to school mid-February 2020.

3.9. Limitations

Limitations experienced during data collection included severe time constraints by the Department of Education. The poor return of questionnaires that were sent home with learners to be filled in by the parents, resulting from the language barrier, and with the insight from chapters 4, 5, and 8 relating to the low level of education of the parents, meant that they could not understand the questions properly – which led to incomplete questionnaires and others not being returned at all. Travelling to access the schools, and arranging appointments with the schools, as there were no landlines in some of the schools, or emails, meant that when the principal was not available at school, the interviews would not take place, as verification had to be made prior to access being granted. There was restricted access to key participants such as the taxi association, which refused to be part of the study, but agreed to give access to drivers to take part in the study. The inability to gain contact with the responsible personnel for the subsidised buses meant that there were key questions that were not answered. Travelling costs and tools required to conduct the study also played a huge role, as conducting the study also came at an expense, and travelling to the schools also contributed towards already accumulated expenses of running a project (see Appendix F).

3.10. Conclusion

In closing, this chapter outlined the methodology adopted to conduct the research and to share what motivated the study. The research design was a case study driven by the research questions. A mixed method was used to collect data, which included a questionnaire, open-ended questions for interviews in focus groups, and an audit sheet to identify physical impacts of school commutes. A varying number of participants took part in a cross-sectional study of self-reported data, which included educators, students of legal age, parents of commuters,

transporters and local leaders. UNISA ethical standards were used as guidelines to conduct the study, as well as strict guidelines from the Department of Education so as not to interfere with the curriculum schedule.

Specific research questions were used to guide the project and ensure desirable results. There were specific tools used to ensure that these questions would be answered in the maximum capacity, by structuring the questionnaire using statistical principles, to ensure academic standards for research were met, and a true reflection of the data. There were various challenges faced undertaking this research, including the costs associated with the project, assistance required, ethical requirements that restricted access to participants, and ensuring that all participants were of legal age to be part of the project, leading to multiple visits per school, thus adding to travelling costs. Language barriers and communication channels proved to be a real challenge; however, reliability of the data can be seen in the following results and analysis chapters ahead. This dissertation will now turn to presenting the results.

CHAPTER 4: PRIMARY SCHOOLS QUESTIONNAIRE RESULTS AND DISCUSSION

4.1. Introduction

The questionnaires were distributed to parents at four primary schools located in various areas, namely Umnini, Umgababa (Areas 35, 24, 7 and 38), Imfume, Umgobhozini, Ilfracombe, Hlanzeni and Magabheni (all on the South Coast of Durban, KwaZulu-Natal). Umgababa Combined Primary School is located at R102 Sappi Saiccor Road. Of the 350 questionnaires distributed among the schools, only 107 were returned. Data will be divided according to the number of usable questionnaires. All the schools in the area were identified as 'no-fee' schools. In some instances, there is also a feeding scheme in place for those who are impoverished, those who come from unemployed families, or are child-headed homes, where they also receive monthly food parcels as per the policy stated (Auditor General South Africa, 2014).

4.2. Findings: Umgababa Combined Primary School (located in Umnini Tribal Authority)

4.2.1. Demographic profile

Only 30 respondents completed the questionnaire fully. All parents self-reported as being Black African and all spoke IsiZulu at home. Geographically, most respondents reside in the Umgababa area, Section Twenty-Eight (93%) while only two (7%) reside in Idanganya. Thus, the school serves learners from the neighbouring community.

4.2.2. Socio-economic profile

Only seven learners (23%) live with both parents, whereas sixteen learners (53%) live with only their mother, two learners (7%) live with a grandparent, two learners (7%) live with an aunt, another two learners (7%) live with their father, and one learner (3%) lives with a sister. When combining the overall percentage, five learners (17%) do not live with their biological parents, while eighteen learners (60%) live with either their father or mother.

It has been identified that eighteen learners (60%) live with a single parent, while only five learners (17%) stay with a guardian (aunt, sister or grandparents on the maternal side), three learners (10%) of the initial seven (23%) live with both parents who are married, while the other four learners (13%) live with both parents who are not legally married.

In terms of the educational level of mothers, most mothers (nine) (30%) completed Grade 12, five (17%) completed Grade 9, and two (7%) completed primary school. One mother (3%) completed Grade 11, and another one (3%) completed a diploma/degree. Four (13%) learners have mothers who reported having no education at all.

Based on the data received for fathers present in the learners' lives, the data showed that three fathers (10%) completed Grade 12, four fathers (13%) completed Grade 9 and four fathers (13%) had no education at all.

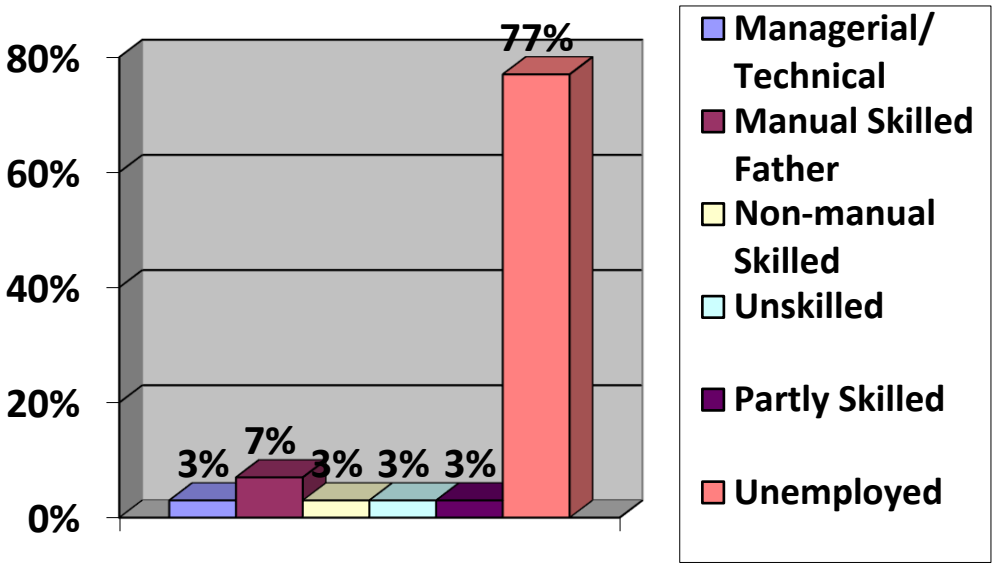

Figure 4.1: Occupation of parents of learners enrolled at Umgababa Primary school (in percentages). (**Source**: Own).

In terms of the parents' occupation, twenty-three parents (77%) were unemployed, two (7%) indicated that the mother was unemployed while the father worked part-time in manual skilled work. One parent (3%) was in a managerial/technical job, one (3%) worked in non-manual/skilled work, one (3%) worked in a partly skilled position, one (3%) worked in a technical skilled position, and one (3%) worked in unskilled work.

Table 4.1: Lifestyle indicators. (**Source**: Own).

Lifestyle item	**Percentage with**	**Actual Numbers**
Electricity	100%	30
TV and/or DVD player	90%	27
Fridge	90%	27
Electrical appliances	80%	24
Receives a government grant	67%	20
Smartphone	57%	17
M-Net/DSTV subscription	37%	11
Household with security gate	30%	9
Motor vehicle	23%	7
Flushing toilet	20%	6
Washing machine	17%	5
Go on holiday/vacation	7%	2
Hot water/geyser	3%	1
Access to the Internet	none	none
Own a pet/s	none	none
Have medical aid	none	none
Have a domestic help/gardener	none	none

All 30 households represented by participants have access to electricity, while twenty-seven of the 30 households (90%) have a television set and a refrigerator. Twenty-seven (80%) indicated they own some form of electrical appliance ranging from electric stoves to microwaves and electric kettles. Nine of the 30 households (37%) stated having DSTV/M-Net channels, with 57% having smartphones. Only one household (30%) had a security gate, no households indicated access to Internet or owning pets. One of the 30 households (3%) indicated having access to hot water, six (20%) showed access to a flushing toilet, twenty (67%) stated that they were receiving government grants for underage children, and all households use public health systems, as they do not have access to medical aid schemes. Two participants (7%) stated that they go on vacations during school holidays, which is limited to visiting relatives, and not paid holidays. They do not hire domestic help or gardening services, and seven (23%) of the 30 participants stated that they have access to a motor vehicle in their household.

There are multiple factors that force these parents to prioritise affordability when choosing in which school to enroll their children. Such factors include the number of social grant recipients that attend the school, high unemployment rates among parents, low levels of education among

parents, and an overall gross lack of skills from which to cultivate a sufficient and sustainable income.

4.2.3. Why is the child enrolled in the school?

Participants stated the following reasons why Umgababa Primary School was the school of choice:

Table 4.2: Factors determining reason for school choice. (**Source**: Own).

Reason for school choice	**Parents who selected this as a reason %**	**Actual No.**
The school management team is strong	57%	17
Good discipline – i.e. no bullying, school well managed	40%	12
My child wanted to go to this school, my child chose it	40%	12
I chose this school for religious reasons	40%	12
This is a school I can afford	33%	10
Good teachers – i.e. qualified, good reputation	33%	10
Previous generations attended the school, e.g. father, grandmother	30%	9
It offered me value for money, in my opinion	27%	8
It is close to my home	20%	6
Another one of my children was already enrolled here	17%	5
Good academic results/facilities (matric pass rate)	10%	3
I chose it as I wanted my child to learn in the specific language of instruction	10%	3

The data collected indicates that the main reason for school choice is predominantly influenced by a few main factors. The highest factor for parents is the school management team (57%), followed by these three equal factors (40%): good discipline, religion (all form part of Christian schools), and the school being the learner's choice of school. Closely followed is affordability (33%), hand in hand with good teachers (33%). Following that, other factors for consideration include previous generations of the family attending the school (30%), value for money (27%), school proximity (20%), and having a sibling attending the same school (17%). Drawing the same level of importance (10%) was good academics, subject choice by parents, and language.

4.2.4. Means, cost and duration for the daily school commute

Twenty-two learners (73%) walk to school, while seven learners (23%) use minibuses or public transport, and only one learner (3%) uses the government-subsidised bus. School transport data indicates that twenty-three learners (76%) do not have any costs when travelling, as they walk to school or use the government-subsidised bus which is free for all learners travelling from the Umnini Tribal Authority. Sixteen learners (53%) travel between 2 – 4 km per one-way trip to school, eight (27%) travel between 4 – 8 km, and five learners (17%) travel between 8 – 12 km. The estimated travelling time per trip was that twenty-two (73%) said they take between 15 – 30 minutes to travel from home to school on a one-way trip, while eight learners (27%) commute between 31 – 45 minutes. Only eight learners (27%) spend between R500 – R1,500 for transport to get to school.

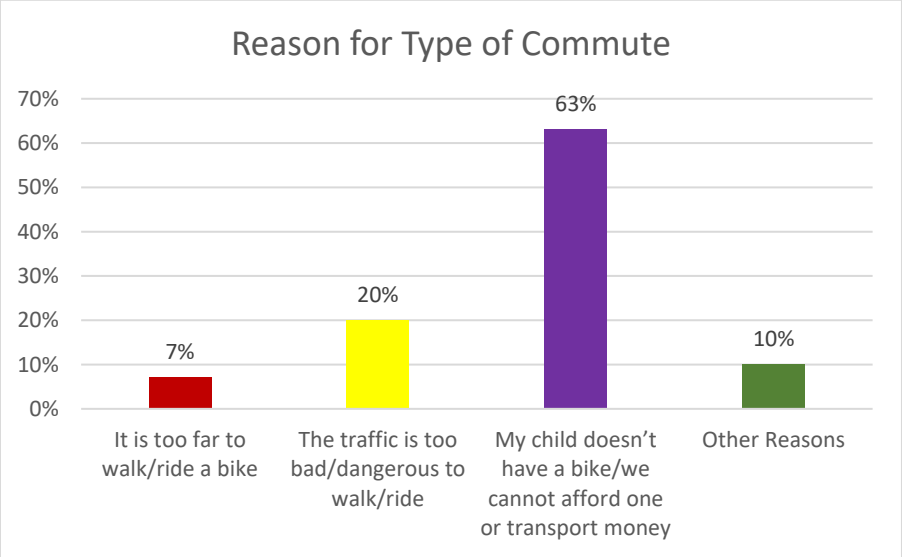

Figure 4.2: Contributing factors for mode of transport choice by commuters. (**Source**: Own).

Based on data provided, 19 learners (63%) walk to school due to being unable to afford alternative modes of transport such as bicycles and taking paid transport. Six learners (20%) indicated that, based on traffic conditions and safety concerns, walking is out of the question to avoid danger. Three learners (10%) stated different reasons as to why they walk to school, including that the government-subsidised bus does not travel close enough to their route, bullying, and living too close to the school to validate the need for alternative transport. Two learners (7%) stated that the distance is too far to walk to school or to ride to school; therefore, they rely either on the government-subsidised bus, paid monthly transport, or minibuses.

4.2.5. Costs associated with schooling

This is a 'no-fee' school; however, there are other school-related costs, such as school uniforms, stationery and school trips. Eight respondents (27%) spend less than R500/month on school expenses, while nine respondents (30%) spend between R500 and R1,500/year. Thirteen households (43%) spend on average R1,500 – R3,000/year on school expenses.

In terms of school lunches, some 17 learners (57%) rely solely on food provided by the school. Six learners (20%) spend less than R500/month on school lunches, while spending money ranges from R10/day to R10/week, depending on affordability. Seven learners (23%) spend between R1,200 and R3,000 per year on lunch costs.

4.3. Findings: Amagcino Primary School (located in Umnini Tribal Authority)

4.3.1. The demographics profile

Collected data provided by parents of learners attending Amagcino Primary School showed that there were only 30 respondents who completed the questionnaire fully, and all parents self-reported as being Black African. The only language spoken at home is IsiZulu. Geographically, twenty-nine (97%) of respondents reside in the Umgababa area, followed by one (3%) who resides in Umnini. This indicates that the school caters to the neighbouring community.

4.3.2. Socio-economic profile of learners

Based on socio-economic profiles, it has been identified that twenty learners (67%) live with a single parent being the mother, while six learners (20%) live with both parents, three learners (9%) live with their mother and a stepfather, and one learner (3%) lives with their grandparents as guardians. There were no cases where fathers were indicated as being the sole custodian.

When analysing the parent's level of education, the data was separated according to whom the learner lives with. Twenty parents (67%) have high school education, while the other ten parents (33%) only have primary school, and no parents had tertiary education in this group.

Based on the data received for fathers present in the learners' lives, indications were as follows: three fathers (10%) have Grade 12, four (13%) have Grade 9, and four (13%) have no educational background. Data collected on the mothers indicated that ten mothers (33%) have Grade 12, nine (30%) have Grade 9, and ten (33%) have primary school. In comparison to the

grandparents, one grandparent (3%) has Grade 9, and the other grandparent does not have any educational background.

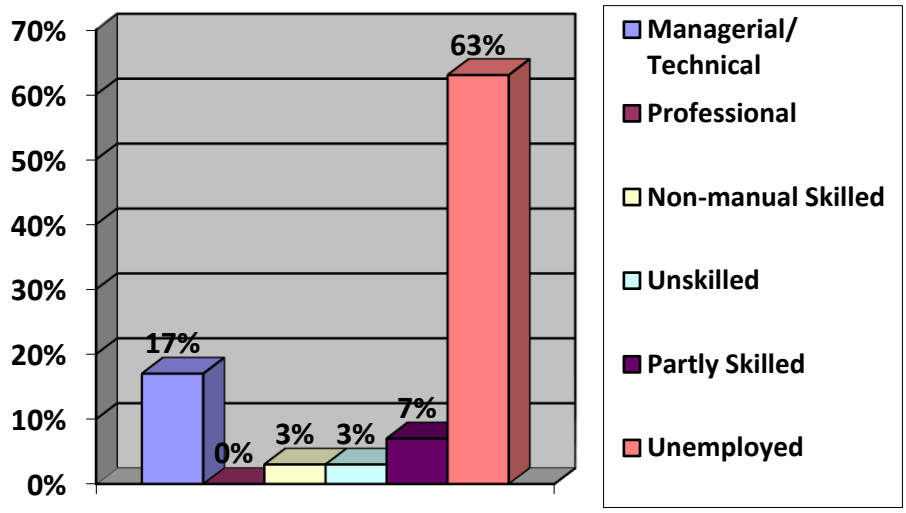

Figure 4.3: Occupation of parents of learners enrolled at Amagcino Primary School (in percentages). (**Source**: Own).

Occupational data collected on parents indicate that nineteen parents (63%) are unemployed, five (17%) have technical skills, two (7%) of the step-parents have jobs, while the biological parent is unemployed. Two parents (7%) are partly skilled, one (3%) has manual skills, and one (3%) is unskilled.

Table 4.3: Lifestyle indicators. (**Source**: Own).

Lifestyle item	**Percentage with**	**Actual Number**
TV and/DVD player	100%	30
Electricity	100%	30
Fridge	100%	30
Receiving government grant	77%	23
Smartphone	73%	22
Electrical appliances	63%	19
M-Net/DSTV Subscription	43%	13
Flushing toilet	23%	7
Go on holiday/vacations	20%	6
Washing machine	17%	5
Motor vehicle	13%	4
Household with security gate	10%	3
Access to Internet	none	none
Hot water/geyser	none	none
Own pet/s	none	none
Have medical aid	none	none
Have a domestic help/gardener	none	none

The lifestyle indicator table above was used to identify the socio-economic classification of Amagcino Primary School participants by identifying the household economic level under which the participants live. Basic needs such as electricity, TV and DVD players are at thirty (100%), an alarmingly high number of government grant recipients at twenty-three (77%), twenty-two (73%) have smartphones, while unemployment is at nineteen (63%). Only thirteen of the 30 participants (43%) have DSTV/M-Net channels, with a low percentage of (23%) having flushing toilets, and all households use public health systems, as they do not have access to medical aid schemes. Only 20% of participants stated to going on vacations during school holidays, which is limited to visiting relatives and not paid holidays. There is 10% of households that have security gates, and 13% that stated to owning a private vehicle in the household, and they do not hire domestic help or gardening services. No household indicated having Internet connection or pets.

4.3.3. Why is the child enrolled in this school?

Participants stated the following reasons as to why the Amagcino Primary School was the school of choice:

Table 4.4: Factors determining reason for school choice. (**Source**: Own).

Reason for school choice	**Parents who selected this as a reason %**	**Actual Number**
Good discipline – i.e. no bullying, school well managed	37%	11
The school management team is strong	33%	10
It offered me value for money, in my opinion	23%	7
I chose this school for religious reasons	20%	6
My child wanted to go to this school, my child chose it.	17%	5
Good teachers, i.e. qualified, good reputation	17%	5
It is close to my home	20%	6
This is a school I can afford	13%	4
Good academic results/facilities (matric pass rate)	13%	4
Previous generations attended the school – e.g. father, grandmother	10%	3
Another one of my children was already enrolled here	7%	2
I chose it as I wanted my child to learn in the specific language of instruction	none	none

The highest reason for school choice was good discipline, at eleven (37%), and school management at ten (33%). Value for money is at seven (23%), while school proximity and religious reasons are both at six (20%). Reputation of the school, academics, and school chosen by the child all came in at five (17%), with affordability at four (13%). Previous generations of the family attending the same a school came in at three (10%), while having a sibling enrolled in the same school was at two (7%).

4.3.4. Means, cost and duration for the daily school commute

Means to get to school

Twenty-five learners (83%) walk to school on a daily basis, while four (13%) use the government-subsidised bus, and only one (3%) uses private transport.

Cost associated with school commuting

School transport data indicates that twenty-seven learners (90%) do not have any costs when travelling as twenty-five (83%) walk to school, and two (7%) use the government-subsidised bus, which is free for all learners travelling from the Umnini Tribal Authority. Only one learner (3%) uses a private vehicle to get to school, which is less than R500/month, while the other two have transport costs, which are occasional and weather-condition related. This gives an overall of only three (10%) learners with commuting costs, and only four (13%) who do not walk to school.

Distance travelled

Approximate distance travelled by learners to school indicates that eighteen learners (60%) travel between 2 – 4 km per one-way trip to school, and twelve learners (40%) travel between 4 – 12 km. Estimated travelling time per one-way trip as indicated by participants: eighteen learners (60%) take between 15 – 30 minutes to travel from home to school, while twelve learners (40%) take between 31 – 45 minutes.

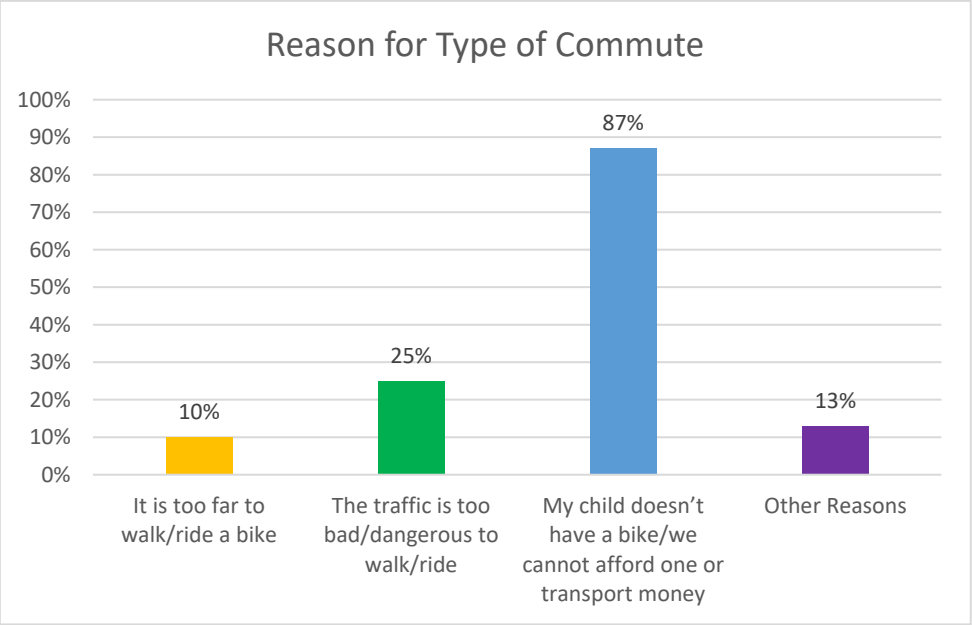

Figure 4.4: Contributing factors for mode of transport choice by commuters. (**Source**: Own).

The main reasons for mode of transport used by learners stated by participants at Amagcino Primary School included convenience, affordability and safety. Most learners (64%) stated that the reason behind walking to school is affordability, no access to a bicycle, and unsafe roads

with too much traffic (19%). Two learners (7%) stated it is too far to walk or ride, hence they use the alternative travelling methods, and 10% stated other reasons for mode of commute they use, which included distance travelled, no other option, and no direct transport systems in their area of residence.

Most participants specified that the school is the closest to their place of residence (93%), and only two learners (7%) had left other schools to attend this primary school (one from Umnini and the other from Area 24, Umgababa).

4.3.5. What are the costs of schooling for these learners?

Based on the socio-economic level of the community the school falls under, schools in the Umnini Tribal Authority area are deemed to be 'no-fee' schools. Other school expenses include school uniforms, stationery and school trips. Expenditure on other school expenses is reported as follows: twenty-two respondents (73%) spend less than R500/month on school expenses, while eight respondents (27%) spend between R500 – R1,500/year.

Data also indicated that school lunch costs for learners are significant, and more students depend on the feeding scheme for food than those who can afford to bring lunch or pocket money to school. The data showed that seventeen learners (57%) rely solely on school lunch provided by the school (as they do not bring lunch from home or spending money), six learners (20%) spend less than R500/month on school lunch in the form of actual lunch (expenditure thereon ranges between R10/day – R10/week, depending on affordability), while at least seven learners (23%) spend more than R1,200/year on lunch costs.

4.4. Findings: Sidiya Junior Primary School (located in Umnini Tribal Authority)

4.4.1. The demographic profile

Based on collected data provided by parents of learners attending Sidiya Junior Primary School, there were only ten (10) respondents who completed the questionnaire fully, and all parents self-reported as being Black African. The language spoken at home is IsiZulu, at 100%. Geographically, most respondents reside in the Umgababa areas: four respondents live in Umgababa (40%), followed by two (20%) who reside in Imfume, one (10%) who lives in Umgobhozini, and three (30%) who live in Umnini. This data indicates that the school caters to the neighbouring community. Umgababa is the largest area within the Umnini Tribal

Authority, with different area numberings including Area 35, Area 38, Area 24, Area 13 and Area 7.

4.3.2. Socio-economic profile of learners

Two learners (20%) live with both parents, seven (70%) live with their mother where the mother is a single parent, and one (10%) lives with parents who co-parent.

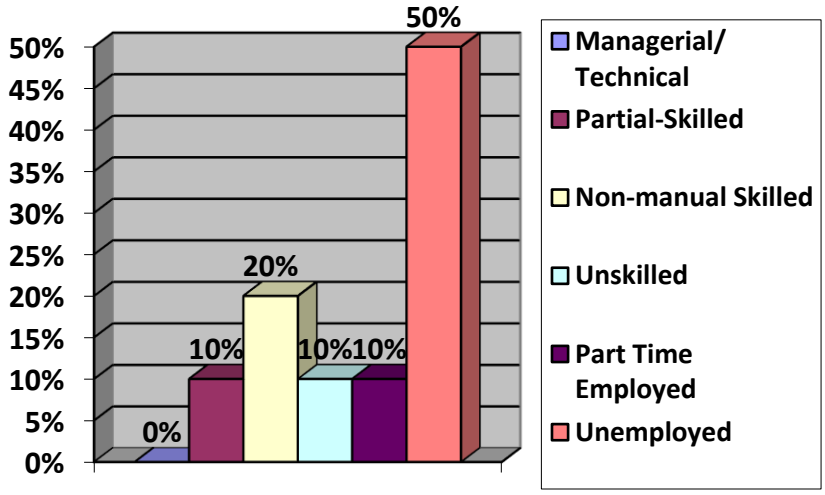

Figure 4.5: Occupation of parents of learners enrolled at Sidiya Primary School (in percentages). (**Source**: Own).

In relation to parents' level of education, the data was separated according to with whom the learner lives. This data showed that seven parents (70%) have high school education and three have primary school education. Six parents (50%) identified as unemployed, two (20%) have non-manual skills, two stated to be part-time employed (10%), one (10%) is unskilled, and one (10%) is partially skilled. Nine parents are government grant recipients (90%), and only one (10%) is not.

Table 4.5: Lifestyle indicators. (**Source**: Own).

Lifestyle item	**Percentage with**	**Actual Numbers**
Electricity	100%	10
Receiving government grant	90%	9
TV and/DVD player	80%	8
Smartphone	80%	8
Fridge	80%	8
Electrical appliances	60%	6
M-Net/DSTV subscription	20%	2
Washing machine	10%	1
Hot water/geyser	10%	1
Flushing toilet	10%	1
Motor vehicle	10%	1
Household with security gate	none	none
Access to Internet	none	none
Own pet/s	none	none
Have medical aid	none	none
Go on holiday/vacations	none	none
Have a domestic help/gardener	none	none

The above table was established to identify the socio-economic classification of the Umnini Tribal Authority. It has been identified that all ten households have access to electricity, while eight of the ten households (80%) have a television set. Similarly, only eight of the ten participants (80%) have a refrigerator in their household, nine (90%) do not own a washing machine, eight (80%) indicated that they own some form of electrical appliances, ranging from electric stoves to microwaves and electric kettles. Two (20%) have DSTV/M-Net channels, while eight (80%) have smartphones. All ten participants do not have a security gate, Internet connection or pets. One household (10%) has access to hot water, one (10%) has a flushing toilet, nine (90%) receive government grants for underage children, and all households use public health systems, as they do not have medical aid schemes. All participants have not been on vacations during school holidays. They do not hire domestic help or gardening services, and only one (10%) stated to having a motor vehicle in their household.

There are various factors that contribute to school choice for parents, which have proved to be centralised around affordability, and compounded in nature. These include the number of social grant recipients who attend the school, a high unemployment rate and low level of education

among parents, and an overall lack of skills. In an effort to cut costs, parents will generally choose the most conveniently accessible schools in terms of location and cost.

4.4.3. Why is the child enrolled in the school?

Participants stated the following reasons why Sidiya Primary School was the school of choice. All the parents chose the school based on affordability, followed closely by the proximity to primary residence (60%), with school management and academics at four (40%), and further reasons for school choice as stated in the table below.

Table 4.6: Factors determining reason for school choice. (**Source**: Own).

Reason for school choice	**Parents who selected this as a reason %**	**Actual Number**
This is a school I can afford	100%	10
Good teachers – i.e. qualified, good reputation	100%	10
It offered me value for money, in my opinion	100%	10
Previous generations attended the school, e.g. father, grandmother	90%	9
It is close to my home	60%	6
Good discipline – i.e. no bullying, school well managed	50%	5
Another one of my children was already enrolled here	50%	5
The school management team is strong	40%	4
I chose this school for religious reasons	40%	4
Good academic results/facilities (matric pass rate)	10%	1
I chose it because I wanted my child to learn in the specific language of instruction	none	none
My child wanted to go to this school, my child chose it.	none	none

Data collected shows that although there are various reasons behind school choice, a few dominant factors in this instance include financial motivation and school reputation (both at 100%). Closely followed is school proximity to home (60%) and having previous generations enrolled at the same school (90%). Good discipline and having participants' siblings at the same school both proved to be a serious consideration at 50% (five) each. School management

and religion are somewhat less important at 40% (four), and academics and language of instruction are the least important at 10% (one).

4.4.4. Means, cost and duration for the daily school commute

Means to get to school

Four learners (40%) walk to school daily, four (40%) use private transport paid on a monthly basis, and two (20%) use a minibus to get to school.

Cost associated with school commuting

School transport data indicates that seven learners (70%) spend less than R500/month on transport costs, while three (30%) have no costs associated with commuting. One of the three learners with no commuting stated that although they walk on most days, weather conditions are a factor as to which mode of transport the commuter uses.

Distance travelled

Approximate distance travelled by learners to school indicates that six (60%) travel between 2 – 4 km per one-way trip to school, while four (40%) travel 4 – 8 km.

Estimated travelling time per trip from home to school on a one-way trip is between 15 – 30 minutes for six of the learners (60%), and 31 – 45 minutes for four of the learners (40%).

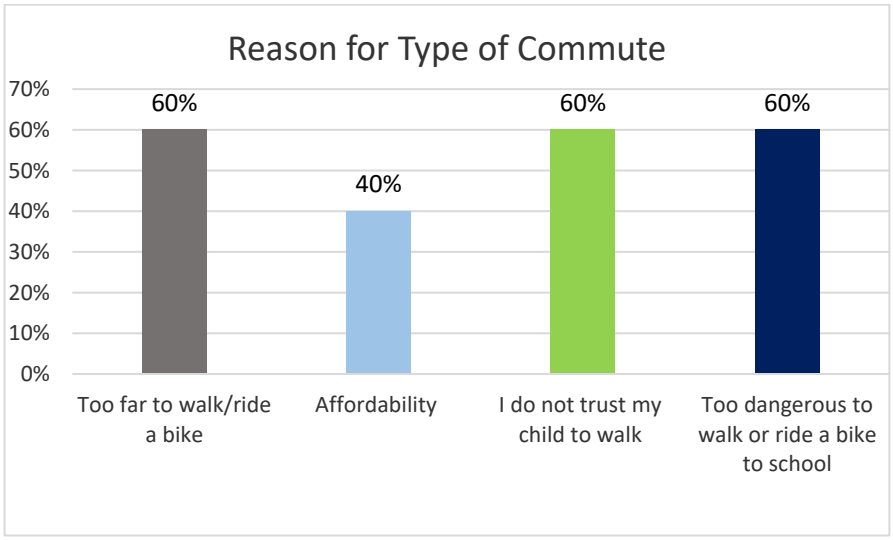

Figure 4.6: Contributing factors for mode of transport choice by commuters. (**Source**: Own).

Mode of transport choice is split as follows: six learners (60%) said it is too far to walk to school, while four (40%) stated they live close enough to walk. A further consideration is the safety factor for the children, where six of the participants (60%) said that they feel it is too unsafe to walk to school, and if they could afford alternative transport, they would rather do that.

4.4.5. Costs associated with schooling

All schools in the area of Umnini Tribal Authority form part of the 'no-fee' schools policy. Learners do not pay school fees and there are school feeding schemes to ensure that the children who come from poor backgrounds are fed while at school. Those who come from unemployed families, or are child-headed homes, also receive monthly food parcels.

Other school expenses include school uniforms, stationery and school trips: five respondents (50%) spend less than R500/month on school expenses, while two (20%) said they spend between R500 and R1500/year. Three households (30%) spend R1,500 to R3,000/year on average on school expenses.

Data also indicated that five learners (50%) rely solely on school lunch provided by the school, as they do not bring lunch from home, or spending money. The other five (50%) participants stated that they spend between R775 – R1,800/year on school lunch.

4.5. Findings: Umnini Memorial Senior Primary School (located at P728 Mfume Road)

4.5.1. The demographic profile

Based on collected data provided by parents of learners attending Umnini Memorial Senior Primary school, there were only 37 respondents who completed the questionnaire fully, and all parents self-reported as being Black African. The main languages spoken at home include 35 IsiZulu (94%), IsiXhosa at one (3%), and English at one (3%). Geographically, the majority of the respondents reside in Umnini, at twenty-eight (76%), followed by eight (22%) who reside in Umgababa areas, and one (3%) who resides in Mfume. This indicates that the school caters to the neighbouring community. Umnini is the closest area within the school location, and Umgababa is the largest area in the tribal authority, with different area numberings including Area 35, Area 38, Area 24, Area 13 and Area 7. Lastly, Mfume is the second closest from Umnini in terms of school location.

4.5.2. Socio-economic profile of learners

Founded on socio-economic profiles, it has been recognized that eleven learners (30%) live with both parents, seventeen (46%) live with their mother and extended family members and even a step-parent, while nine (24%) live with guardians.

The relationship status of parents found that nine biological parents (24%) are cohabiting, while the other two biological parents (5%) are married, seven (19%) are married to a step-parent, eight (22%) are widowed, seven (19%) are single parents, three (8%) are divorced, and one learner (3%) is without parents.

While investigating the parents' education level, the data was assessed based on with whom the learners live. The data indicated that twenty-six parents (70%) have high school education level (Grade 9 – Grade 12), eight (22%) have tertiary education level, and three (8%) have primary school level education.

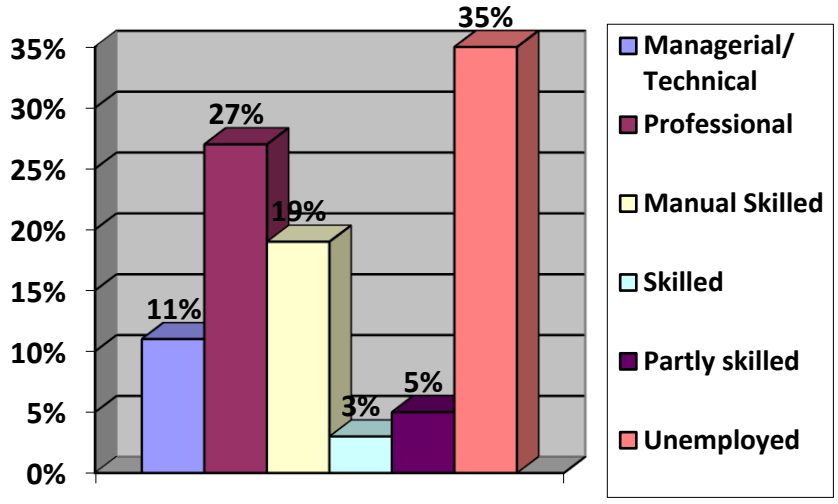

Figure 4.7: Occupation of parents of learners enrolled at Umnini Memorial Senior Primary school (in percentages). (**Source**: Own).

The occupational data collected on parents showed that thirteen (35%) are unemployed, ten (27%) are professionals, seven (19%) have manual skills, four (11%) have technical skills, two (5%) are partially skilled, and one (3%) is skilled.

It was also identified that twenty-one of the parents are employed (57%), while thirteen (35%) are unemployed, and there are three pensioners (8%).

Table 4.7: Lifestyle indicators. (**Source**: Own).

Lifestyle item	**Percentage with**	**Actual Number**
TV and/DVD player	100%	37
Electricity	100%	37
Fridge	97%	36
Electrical appliances	94%	35
Smartphone	94%	35
Use public clinic and hospital	92%	34
M-Net/DSTV subscription	84%	31
Flushing toilet	57%	21
Washing machine	43%	16
Receiving government grant	32%	12
Household has a security gate	30%	11
Go on holiday/vacations	30%	11
Have a domestic help/gardener	16%	6
Have medical aid	8%	3
Hot water/geyser	3%	1
Access to Internet	none	none
Own pet/s	none	none
Motor vehicle	none	none

The lifestyle indicator table above was used to identify the socio-economic classification of the Umnini Tribal Authority. The data collected at Umnini Memorial Senior Primary School showed that its participants had a higher number of DSTV subscribers compared to the other schools, with thirty-one participants (84%), washing machines at sixteen (43%), electrical appliances at thirty-five (94%), and a flushing toilet at twenty-one (57%) – which is the highest number of all the primary schools that took part in the study. It is worth noting that as one goes lower on the lifestyle indicator table, so the number of participants also goes lower; this has been identified as a trend throughout this study. This can be seen by how these participants do hire domestic help and help with the garden (six participants or 16%), and all primary school participants do not own pets, and do not have security gates in their households.

4.5.3. Why is the child enrolled in this school?

Participants stated the following reasons why Umnini Memorial Senior Primary School was the school of choice:

Table 4.8: Factors determining reason for school choice. (**Source**: Own).

Reason for school choice	**Parents who selected this as a reason %**	**Actual No**
This is a school I can afford	77%	28
Good teachers – i.e. qualified, good reputation	76%	28
It offered me value for money, in my opinion	72%	27
The school management team is strong	70%	26
Another one of my children was already enrolled here	62%	23
It is close to my home	51%	19
My child wanted to go to this school, my child chose it.	46%	17
Good discipline – i.e. no bullying, school well managed	38%	14
Previous generations attended the school, e.g. father, grandmother	27%	10
Good academic results/facilities (matric pass rate)	8%	3
I chose this school for religious reasons	none	none
I chose it as I wanted my child to learn in the specific language of instruction	none	none

The data showed that most participants chose the school based on affordability (77%), followed by good teachers (76%), value for money (72%), school management (70%), because it was the school choice of the learner (62%) and because it was close to home (51%). The other factors ranged around 46%: fourteen participants (38%) chose the school based on good discipline and good school management, ten participants (27%) chose the school based on previous generations having attended the school, and three participants (8%) chose the school because of its good academic results and facilities.

4.5.4. Means, cost and duration for the daily school commute

Means to get to school

Twenty-seven learners (73%) walk to school on a daily basis, five (14%) use a minibus or other public transport, two (5%) use the government-subsidised bus, two (5%) use private transport paid for monthly, and one (3%) uses a bicycle to get to school.

Cost associated with school commuting

School transport data indicates that thirty-one learners (84%) do not have any costs in terms of their commute, as they walk to school or, alternately, use the government bus, which is free for all learners, whilst six (16%) spend less than R500/month on school transport costs.

Distance travelled

Data collected on approximate distance travelled by learners to school on a one-way trip showed that four (11%) travel less than 2 km to school, nineteen (51%) travel between 2 – 4 km, five (13%) travel between 4 – 8 km, five (14%) travel more than 12 km, and four (11%) travel between 8 – 12km.

Probable travelling time per one-way trip was indicated by learners and their parents: twelve (32%) estimated less than 15 minutes, while eleven (30%) estimated between 16 – 30 minutes, and fourteen (38%) estimated 31 – 45 minutes on a single trip.

Interestingly, thirteen participants (35%) stated Umnini Primary as the closest school from home, while twenty-four (65%) indicated that they had other schools along the route that they chose not to attend.

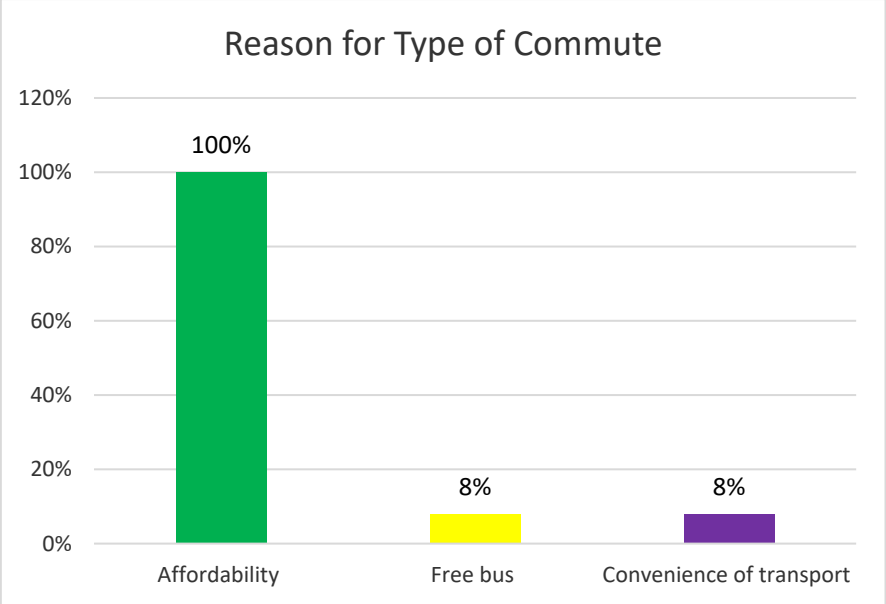

Figure 4.8: Contributing factors for mode of transport choice by commuters. (**Source**: Own).

The main reason for mode of transport chosen was affordability (100%), followed by access to the government-subsidised bus (8%) and the convenience factor (8%).

4.5.5. Cost associated with schooling

Based on the introduction of the 'no-fee' school policy system to categorize schools based on the socio-economic level of the community they fall under, all the schools in the area of Umnini Tribal Authority are 'no-fee' schools. Schools such as Umnini Memorial Primary School do charge fees, and there is a feeding scheme in place to ensure that those children who come from poor backgrounds are fed at school.

Other school expenses include school uniforms, stationery and school trips. Eight respondents (22%) spend less than R500/month on school expenses, while three (8%) spend between R500 – R1,500/year, and twenty-six (70%) spend more than R1,500 – R3,000 per year on school expenses.

4.6. Conclusion

In closing, what is evident from the data collected on primary schools is that the distribution of the questionnaire was systematic, where the seven closest schools in the Umnini Tribal Authority were identified to optimize the data collection process. The demographic profile self-identified all participants as Black African, who speak isiZulu as the predominant language,

and geographically reside in nearby communities within the tribal authority. A large number of participants live in a single-parent household. In most cases, it is only the mother who is present. It is followed by living with married parents (with the biological significant other or with a step-parent), and lastly, with a guardian (aunts, grandparents or siblings). Most parents had low educational qualifications. Most were high school dropouts, primary school dropouts, or with Grade 12.

This corresponds with the employment statistics, where many people are unemployed or unskilled workers, making them lower-income households or dependent on government grants. All schools showed similar trends, even when it came to lifestyle indicators. All households had electricity, water and basic appliances such as a fridge, stove and an electric kettle, to name a few. When it came to items such as television, DSTV/M-Net, smartphones and flushing toilets, numbers dropped significantly.

Distance travelled to school shows that a large number travel between 2 km and 4 km and walk to school. Those who travel longer distances, above 4-12 km, use alternative transport due to the age factor. Mostly younger grades, from Grade 1 to 4, use monthly paid transport, while slightly older children walk or use the subsidised buses. Factors identified for mode of transport were safety, convenience and economic reasons. Costs associated with schooling and commute, due to all schools being 'no-fee' schools, had participants stating that they spend between R500 - R1500 per year on school costs. Affordability, accessibility, proximity, good reputation of the school, teachers' and school management style, were among the top reasons for school choice. This is an unexpected finding, considering that the main service provided by schooling is education, and academics were not among the highest reasons for school choice. Commuting patterns indicate that, based on proximity, it is convenient to walk to school. Those who live close enough tend to walk to school. Affordability does influence commuting decisions, as younger learners tend to take paid monthly school transport. Family finances influence the mode of transportation chosen. This study will now turn to the results of the high schools.

CHAPTER 5: HIGH SCHOOL QUESTIONNAIRE RESULTS AND DISCUSSION

5.1. Introduction

The questionnaires were distributed to parents at three high schools located in various areas, including Umgababa (Area24), Umgobhozini, and Hlanzeni (all on the South Coast of Durban, KwaZulu-Natal). Umnganiwakhe High School, Mcothoyi High School, and Esizibeni High School are located along the R102 Sappi Saiccor Road. Of the 350 questionnaires distributed among the seven schools, only 147 were returned fully completed, while only 40 of the returned were from high school participants. Data will be divided according to the number of usable questionnaires. All the high schools in the area are 'no-fee' schools (Auditor General South Africa, 2014). There is also a feeding scheme, and those who come from unemployed families or child-headed homes also receive monthly food parcels.

5.2. Findings: Umnganiwakhe High School (located in Area 24, Umgababa)

5.2.1. The demographic profile

Based on collected data provided by parents of learners attending Umnganiwakhe High School, there were only 23 respondents who completed the questionnaire fully, and all parents self-reported as being Black African. The main language spoken at home is IsiZulu (100%). Geographically, most respondents (20 or 87%) reside in the Umgababa area, followed by two (9%) who reside in Ilfracombe, and one (4%) resides in Imfume, which means that the school caters to the local community. Umgababa is the largest area within the Umnini Tribal Authority, with different area numberings ranging from Area 35, Area 38, Area 24, Area 13 and Area 7 – to name a few, stated by respondents, for better specification of where they are located.

5.2.2. Socio-economic profile of learners

Only nine participants (39%) live with both parents – although, in these instances, the parents are not married, ten (43%) live with single mothers, two (9%) live with their married parents, and one (4%) lives with a parent who is married to someone else, while one (4%) lives with a guardian. It was also identified that living arrangements have a similar pattern, where eleven

participants (48%) have parents living under the same roof, while ten (43%) live with a single parent, and two (9%) live with a grandparent or guardian.

In relations to parents' educational level, it was separated according to with whom the learner lived, and the data showed that: sixteen (69%) have high school education, five (22%) have primary school education, and two (9%) have tertiary education. This data is not specified according to gender.

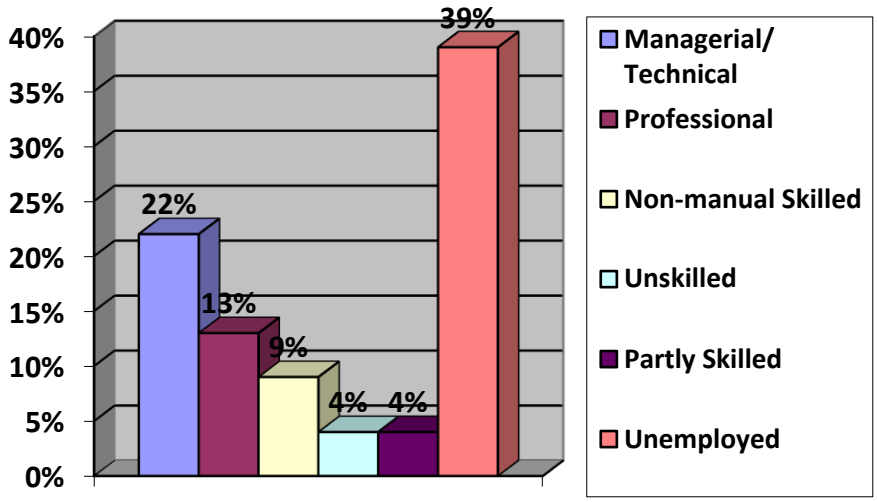

Figure 5.1: Occupation of parents of learners enrolled at Umnganiwakhe High School (in percentages). (**Source**: Own).

Occupational skills and levels were as follows: nine (39%) are unemployed, one (4%) has technical skills, five (22%) have manual skills, five (22%) have non-manual skills, two (9%) are unskilled, and one (4%) is skilled.

Table 5.1: Lifestyle indicators. (**Source**: Own).

Lifestyle item	**Percentage with**	**Actual Numbers**
TV and/DVD player	100%	23
Electricity	100%	23
Fridge	91%	21
Government grant	83%	19
Smartphone	69%	16
Electrical appliances	56%	13
Holiday vacations	39%	9
Flushing toilet	35%	8
Motor vehicle	30%	7
M-Net/DSTV subscription	30%	7
Gates household	22%	5
Washing machine	13%	3
Hot water/geyser	13%	3
Internet	none	none
Pets owned by household	none	none
Medical aid	none	none
Domestic help/gardener	none	none

The lifestyle indicator table above is an attempt to understand the socio-economic classification of participants who attend Umnganiwakhe High School, and to gain clarity on the quality of life in the participants' experience, including what they live with, and without, on a daily basis. It has been identified that all 23 households have access to electricity and television, and that all households use public health systems, as they do not have access to medical aid schemes. Twenty-one (91%) households have a refrigerator, nineteen (83%) receive government grants for underage children, thirteen (56%) indicated that they own some form of electrical appliances (for example, electric stove, microwave, and electric kettle). Sixteen participants (69%) have smartphones, and nine (39%) go on vacations during school holidays (this type of holiday is limited to visiting relatives versus paid holidays). No participants hire domestic help or gardening services, and eight (35%) have a motor vehicle in their household. Eight (35%) have a flushing toilet, seven (30%) have DSTV/M-Net channels, three (13%) have hot water, three (13%) have a washing machine, and no household has a security gate, access to the Internet, nor do they own any pets.

5.2.3. Why is the child enrolled in this school?

Participants stated the following reasons as to why Umnganiwakhe High School was the school of choice:

Table 5.2: Factors determining reason for school choice. (**Source**: Own).

Reason for school choice	**Parents who selected this as a reason %**	**Actual No**
It is close to my home	52%	12
This is a school I can afford	43%	10
Good academic results/facilities (matric pass rate)	4%	1
The school management team is strong	none	none
Good discipline – i.e. no bullying, school well managed	none	none
My child wanted to go to this school, my child chose it	none	none
Another one of my children was already enrolled here	none	none
Previous generations attended the school, e.g. father, grandmother	none	none
Good teachers – i.e. qualified, good reputation	none	none
I chose this school for religious reasons	none	none
It offered me value for money, in my opinion	none	none
I chose it because I wanted my child to learn in the specific language of instruction	none	none

According to the analysis, it shows that the most important factors to parents when choosing to send their children to this school, was proximity to home (52%) and affordability (43%). The other factor that forms part of parents' consideration is academics (4%). The data collected clearly indicates that finances have a significant effect on school choice and commuting patterns, as both key indicators stemmed from affordability, and none of the other indicators were selected as reasons for school choice.

5.2.4. Means, cost and duration for the daily school commute

Means to get to school

Fourteen participants (61%) walk to school daily, while five (22%) use the government-subsidised bus, and four (17%) use a variety of transport to get to school, alternating between the minibuses, the government-subsidised bus, private lifts and walking.

Cost associated with school commuting

School transport data indicated that fourteen participants (61%) do not have any commuting costs, as they walk to school, five (22%) use the government-subsidised bus, and four (17%) vary between using the minibus when the weather is poor, or request a lift home, amounting to less than R500/month.

Distance travelled

Approximate distance travelled by learners to school showed that, per one-way trip to school, three participants (13%) commute less than 2 km, twelve (52%) travel between 2 – 4 km, five (22%) travel between 4 – 8 km, and three (13%) travel between 8 –12 km.

Estimated travelling time per one-way trip, as specified by learners and their parents, is as follows: three participants (13%) commute less than 15 minutes, eight (35%) take between 15 – 30 minutes, and twelve (52%) commute between 31 – 45 minutes.

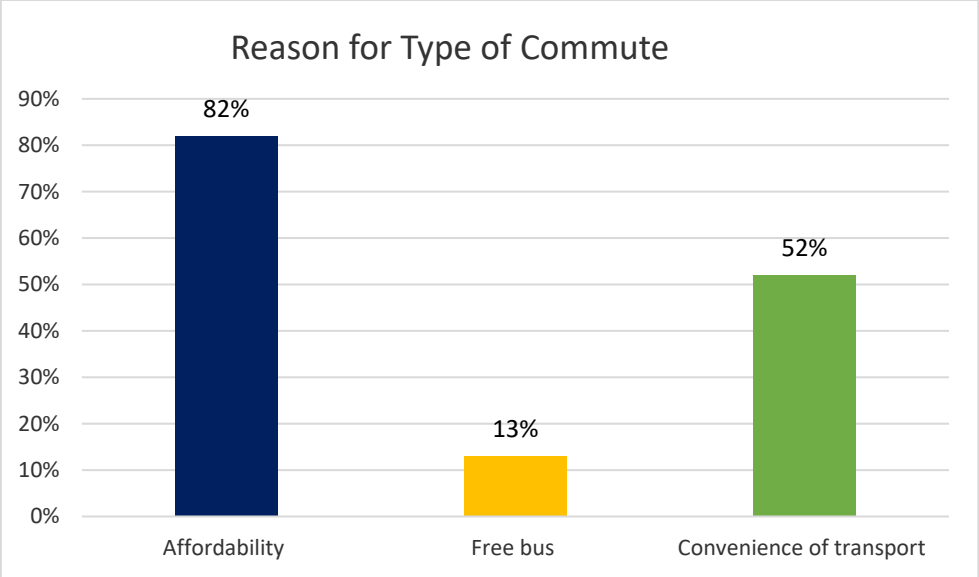

Figure 5.2: Contributing factors for mode of transport choice by commuters. (**Source**: Own).

The main reason for mode of transport choice is affordability (particularly around lack thereof for alternative transport measures), hence the number of commuters who simply walk versus using other modes of transport. Twelve participants (52%) attested convenience as the contributing factor, while only three (13%) stated that the free transport (government-subsidised buses) had an impact on their choice. It is worth noting that although 52% of participants stated that their mode of transport choice was motivated by convenience, proximity of home to school is only a part of this convenience factor, as previous data shows that only 52% actually live close to the school they are enrolled in, while the other 48% are not enrolled in the nearest school.

5.2.5. Costs associated with schooling

Other school expenses can include items such as school uniforms, stationery and school trips. Twelve participants (52%) spend less than R500/month on school expenses, while eleven (48%) spend more than R500.

5.3. Findings: Esizibeni Comprehensive High School (located in Umnini Tribal Authority)

5.3.1. The demographic profile

The data collected by parents of learners attending Esizibeni Comprehensive High School showed that there were only six respondents who completed the questionnaire fully, and all parents self-reported as being Black African. The main language spoken at home is IsiZulu (100%). Geographically, most respondents reside in the Umgababa area (three or 50%), followed by Mashiwase (one or 17%), Umlazi (one or 17%) and Hlanzeni (one or 17%). Umgababa is the largest area within the Umnini Tribal Authority, with different area numberings including Area 35, Area 38, Area 24, Area 13 and Area 7.

5.3.2. Socio-economic profile of learners

In terms of parent relationship status, three (50%) are single parents, while the other three (50%) are married. Participants stated that three (50%) live with both parents and extended family, and the other three (50%) live with their mothers and extended family members.

In relation to parental educational level, it was separated according to with whom the learner lives. There are three families where the parents are married, and the mother and father have high school education (50%), while two single parents (mothers) (33%) have tertiary education, and one single parent (17%) has high school education.

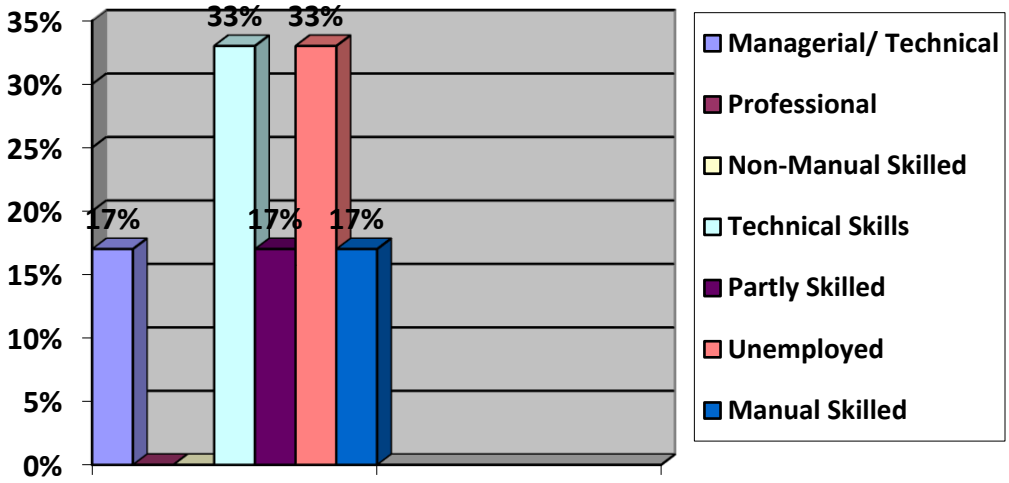

Figure 5.3: Occupation of parents of learners enrolled at Esizibeni Comprehensive High School (in percentages). (**Source**: Own).

In terms of occupational data, participants indicated that two households (33%) had unemployed parents, while two (33%) indicated that parents have technical skills, while only one (17%) has parents or a parent who is partly skilled, and one (17%) has parents or a parent who is manually skilled.

Table 5.3: Lifestyle indicators. (**Source**: Own).

Lifestyle item	**Percentage with**	**Actual Numbers**
TV and/or DVD player	100%	6
Electricity	100%	6
Fridge	100%	6
Electrical appliances	100%	6
Have medical aid	100%	6
Receiving government grant	83%	5
M-Net/DSTV subscription	83%	5
Smartphone	83%	5
Flushing toilet	83%	5
Motor vehicle	50%	3
Household with security gate	17%	1
Go on holiday/vacations	17%	1
Washing machine	17%	1
Access to Internet	none	none
Hot water/geyser	none	none
Own pet/s	none	none
Have a domestic help/gardener	none	none

Using the lifestyle indicator table above to identify the socio-economic classification of participants, it has been identified that all participants have access to electricity, a refrigerator, electrical appliances (for example, electric stoves, microwaves and electric kettles) and television. Five participants (83%) have DSTV/M-Net subscriptions, smartphones and flushing toilets, and receive government grants. Three participants (50%) have a motor vehicle in their households. One participant (17%) of the group has a washing machine, a security gate, and goes on vacation during school holidays (this is limited to visiting relatives, and not paid holidays). No household has Internet, pets, hot water, domestic help or gardening services. All households use public health systems, as they do not possess medical aid schemes.

5.3.3. Why is the child enrolled in this school?

Participants stated the following reasons why the Esizibeni Comprehensive High School was the school of choice:

Table 5.4: Factors determining reason for school choice. (**Source**: Own).

Reason for school choice	**Parents who selected this as a reason %**	**Actual No**
The school management team is strong	83%	5
This is a school I can afford	50%	3
Good discipline – i.e. no bullying, school well managed	50%	3
I chose it because I wanted my child to learn in the specific language of instruction	33%	2
It is close to my home	17%	1
Previous generations attended the school, e.g. father, grandmother	17%	1
Good teachers – i.e. qualified, good reputation	17%	1
I chose this school for religious reasons	17%	1
My child wanted to go to this school, my child chose it.	none	none
Good academic results/facilities (matric pass rate)	none	none
Another one of my children was already enrolled here	none	none
It offered me value for money, in my opinion	none	none

According to the breakdown, it shows that five parents (83%) chose the school based on affordability, which was followed by the school being close to home and good school

management and discipline, both at three (50%). Other reasons for school choice are stated as language used at the school (33%), close to home, previous experience of the school through siblings and other family members, good teachers and religion used at the school, all at 17%. The main reason for school choice is finances. Poor parents are electing to send their children to no fee neighbouring schools.

5.3.4. Means, cost and duration for the daily school commute

Means to get to school

Two participants (33%) use private monthly paid transport (*Omalume*), one participant (17%) is dropped off by their father in the morning and takes a taxi back home in the afternoon, or walks back with friends, one (17%) walks to school daily, one (17%) uses minibuses, and one uses (17%) other public transport.

Cost associated with school commuting

School transport data indicates that one participant (17%) does not have any costs when travelling, as they walk to school, or they use the government-subsidised bus, which is free for all learners travelling from the Umnini Tribal Authority, four (67%) spend less than R500/month on transport, and one (17%) spends between R500 – R1,500, as they live outside of Umnini Tribal Authority.

Distance travelled

Approximate distance travelled by learners to school on a one-way trip indicates that one participant (17%) travels less than 2 km, one (17%) travels between 2-4 km, one (17%) travels between 4-8 km, one (17%) travels between 8-12 km, and two (33%) travel more than 20 km.

Estimated travelling time per one-way trip, as indicated by learners and their parents, are as follows: two participants (33%) travel less than 15 minutes, one (17%) takes between 15 – 30 minutes, and three (50%) commute between 31 – 45 minutes.

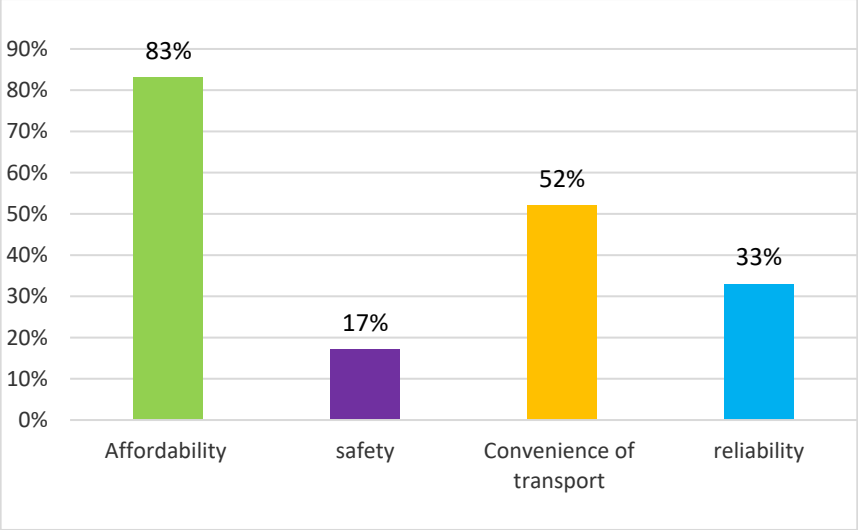

Figure 5.4: Contributing factors to mode of transport choice. (**Source**: Own).

The main reason for mode of transport used by learners includes lack of affordability for alternative modes of transport (five or 83%), hence why many commuters used private vehicles instead, where two (33%) pay on a monthly basis to alleviate once-off costs, one (17%) uses the government-subsidised bus, one (17%) walks, one (17%) takes a private car from home, and one (17%) uses other public transport, including minibuses. It is worth mentioning that previous data showed that only two participants (33%) stated that the reason they chose to attend this school was because it was the closest school to their home, while four (67%) indicated the school was not their closest school option.

5.3.5. Costs associated with schooling

Other school expenses include school uniforms, stationery and school trips. Three participants (50%) spend less than R500/month on school expenses, while three (50%) spend between R500 – R1,500/year.

5.4. Findings: Umcothoyi High School (located in Area 24, Umgababa)

5.4.1. The demographic profile

Based on collected data provided by parents of learners attending Umcothoyi High School, there were only eleven who completed the questionnaire fully, and all parents self-reported as being Black African. The main language spoken at home is IsiZulu (100%). Geographically, all respondents reside in the Umgababa area.

5.4.2. Socio-economic profile of learners

Six parents (55%) are single, three (27%) are married, and the remaining two learners (18%) live with grandparents. The data then shows how the learners' living arrangement at home: four learners (36%) live with both parents who are married, four (36%) live with their mother, one (18%) lives with a mother who is married to someone else, and the remaining two (18%) live with their maternal grandparents.

In relation to the parents' educational level, it was separated according to with whom the learner lives, where the educational level of parents is as follows: one father (9%) has primary school education, ten (91%) have high school education, and one (9%) has tertiary education.

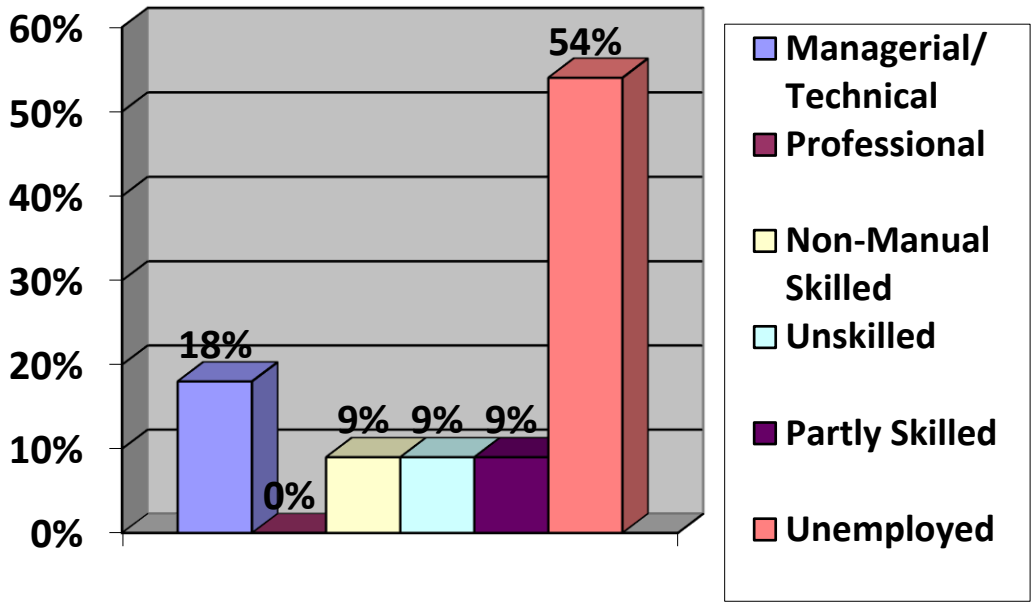

Figure 5.5: Occupation of parents of learners enrolled at Umchothoyi High School (in percentages). (**Source**: Own).

In terms of occupational data collected, it shows that six households (54) have unemployed parents, while two (18%) indicated that they have technical skills, one (9%) is partially skilled, one (9%) is skilled, and one (9%) is unskilled and non-manual skilled.

Table 5.4: Lifestyle indicators. (**Source**: Own).

Lifestyle item	**Percentage with**	**Actual Number**
TV and/or DVD player	100%	11
Electricity	100%	11
Fridge	100%	11
Electrical appliances	100%	11
Smartphone	100%	11
Receiving government grant	100%	11
Flushing toilet	73%	8
M-Net/DSTV subscription	45%	5
Go on holiday/vacations	36%	4
Motor vehicle	27%	3
Household with security gate	18%	2
Hot water/geyser	9%	1
Have medical aid	9%	1
Washing machine	none	none
Access to Internet	none	none
Owns pet/s	none	none
Have a domestic help/gardener	none	none

Using the lifestyle indicator table above, the data showed that all 11 participants' households have access to electricity, a smartphone, a television, a refrigerator, some form of electrical appliance (electric stove, microwave and electric kettle), get some kind of government grant, and all use public health systems because they don't have access to a medical aid scheme. Eight participants (75%) have flushing toilets, five (45%) have DSTV/M-Net subscriptions, four (36%) go on vacations during school holidays (which is limited to visiting relatives and not paid holidays), three (27%) own a motor vehicle in their households, and one (9%) has hot water. No participants have a security gate, washing machine, Internet, pets, or hire domestic help and/or gardening services.

5.4.3. Why is the child enrolled in this school?

Participants specified the following reasons as to why the Umcothoyi High School was the school of choice:

Table 5.5: Factors determining reason for school choice. (**Source**: Own).

Reason for school choice	**Parents who selected this as a reason %**	**Actual #**
This is a school I can afford	54%	6
It offered me value for money, in my opinion	54%	6
My child wanted to go to this school, my child chose it.	45%	5
The school management team is strong	45%	5
I chose it I wanted my child to learn in the specific language of instruction	36%	4
Good discipline – i.e. no bullying, school well managed	27%	3
It is close to my home	18%	2
Previous generations attended the school e.g. father, grandmother	18%	2
Good teachers – i.e. qualified, good reputation	18%	2
I chose this school for religious reasons	18%	2
Another one of my children was already enrolled here	9%	1
Good academic results/facilities (matric pass rate)	none	none

The most important reason behind school choice was affordability at six (55%), followed closely by the school proximity to home at five (45%). Four (38%) chose the school based on the learner's choice, good discipline at three (27%), and good teachers, reputation of the school, religion, proximity to the school, and having previous generations of the family attend the same school all at two (18%) each. Only one (9%) participant stated that having a sibling in the same school impacted their decision.

5.4.4. Means, cost and duration for the daily school commute

Means to get to school

Eight participants (73%) walk to school daily, two (18%) use the government-subsidised bus, and one (9%) uses a private vehicle that is paid on a monthly basis.

Cost associated with school commuting

School transport data indicates that ten participants (91%) do not have any costs when travelling, as they walk to school or use the free government-subsidised bus, while one (9%) pays less than R500/month on private transport.

Distance travelled

Approximate distance travelled by learners to school on a one-way trip indicates that two participants (18%) travel less than 2 km, while five (54%) travel between 2-4 km, two (18%) travel between 4-8 km, two (18%) travel between 8-12 km, and two (18%) travel more than 8 km.

Estimated travelling time per one-way trip, as indicated by learners and their parents, is as follows: six participants (54%) travel less than 15 minutes, two (18%) take between 15 – 30 minutes, and three (27%) commute between 31 – 45 minutes.

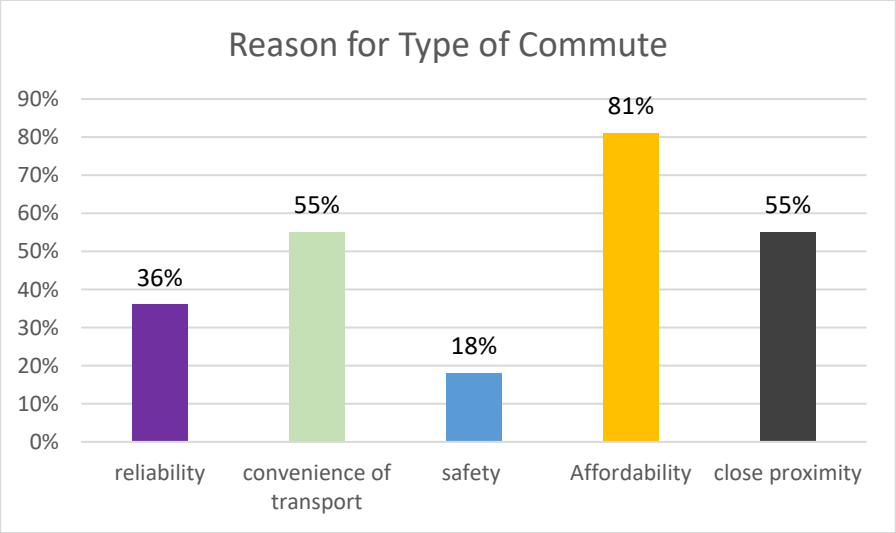

Figure 5.6: Contributing factors to commuters' mode of transport choice. (**Source**: Own).

The main motivation for mode of transport choice was affordability (nine or 81%) and convenience, along with proximity to home – both at 55%. Only 18% of respondents stated that safety impacted their choice, with 36% stating that reliability played a role in their final decision.

5.4.5. Costs associated with schooling

Additional school expenses include school uniform, stationery, and school trips. Six participants (55%) spend less than R500/month on school expenses, while two (18%) spend between R500 – R1,500/year, and three (27%) spend R1,500 – R3,000/year on school expenses.

5.5. Conclusion

All three high schools took part in the study. Of the 350 questionnaires distributed among the seven schools, only 147 were returned fully completed, while only 40 of the returned were from high school participants. The main language spoken in the homes of high school learners is Isizulu, most participants self-reported as being Black African, and residing between Umgababa areas, Ilfracombe, Imfume, Magabheni and Hlanzeni. The socio-economic profile revealed a high number of single-parent households. Educational background indicated that many parents have some sort of high school education, followed by primary school education, while few have a tertiary education. Overall unemployment is high. Lifestyle indicators revealed that all homes have electricity and some form of electrical appliances and many are government grant recipients. More high school learners have flushing toilets than primary school learners. The main reasons for school choice are proximity and affordability. Good academics are not a primary motivation for school choice amongst high school learners. Walking to school is the most common commute mode followed by using the government-subsidised bus. Based on the costs associated with school, high school parents dedicate less money towards commuting costs and lunch, while spending more on school uniforms, designer school bags, school trips and other items compared to primary school parents.

CHAPTER 6: INTERVIEW AND FOCUS GROUP RESULTS

6.1. Introduction

Varying arrangements in communities within semi-rural environments make them unique in terms of approaches used by authorities within different settings. These authority figures can come in many forms, including the tribal authority leaders or Induna (representative in this case[18]), high school and primary school teachers or school heads, parents, drivers (public transport, minibus drivers, monthly paid vans, government-subsidised buses), older commuters (all three high schools), and the Department of Education of KwaZulu-Natal. Focus groups were conducted with teachers from the high schools and primary schools who have been in the school for five years or more. It is worth noting that separate focus groups were run for the high schools and primary schools. For reference, Teacher 1 remained Teacher 1 throughout the analysis, and the same for Teacher 2, and so on. Both focus groups were held in the school staff room. Focus groups were also conducted in the three high schools where consent was granted, and all learners who participated were over 18 years of age. Although the age is a limitation, the impacts of commuting on minor learners was presented by parents. The focus groups were separated according to gender and were conducted during lunch breaks. The interviews held with parents were conducted at the convenience of the parents; this included conducting the interviews in the parents' home. Interviews were held with drivers who transport school commuters within the Umnini Tribal Authority, including minibus taxis, private monthly paid transport and the government-subsidised bus.

6.2. Results: Induna interview

A representative of the Induna of the Umnini Tribal Authority spoke on behalf of the Induna. The Induna was born in the tribal authority. Most local leaders went to local schools, which make the schools historically significant for the people of the area. In the post-apartheid era, all the schools that were abandoned and destroyed were rebuilt by the government. Local leaders were authorised to work with school governing bodies. The tribal authority representative said:

[18] Due to the area being semi-rural, traditional customs, whereby the approval and engagement with the induna or chief still plays significant role. No decisions can be made without informing them and having imbizo..

"I went to the local schools when I was growing up, started at Umnini Primary School, then later to Umnganiwakhe high school. When my kids were age appropriate to attend school in the early 1990's the schools had been damaged by political wars and were not in a position to accommodate them. So, I decided to take them to neighbouring schools, which were Illovo primary school and later when the local schools had been renovated, they went to Umcothoyi and Umnganiwakhe, so they had left multi-racial schools."

Transportation is a huge issue for the area, due to accidents involving primary school children. The tribal authority representative explained: *"The roads could be made safer, add more pedestrian walkways, have crossings for kids, and also create more roads, instead of foot paths that are not safe"*. Also, although taxis do assist with transporting school commuters, in most cases they also have responsibilities to the rank and a schedule they follow, so there are never enough of them to assist children to get to school[19]. The tribal authority representative said: "*We try and work with the relevant organisations being the taxi associations, bus drivers, and private vans to have good working relations to have a functional transport system which is efficient and safe*".

Taxis can be overloaded and drive recklessly (trying to make as much money as possible in a short period of time, before being called back to the rank). During rainy seasons, the number of accidents increases. Thus, local leaders asked relevant government organisations for transportation for the learners. A tender was awarded, and after four years there is a system of school buses that transport children to school. The current bus system is a joint venture with the local leadership and school. Despite this, some still walk to school or use private transport (*Omalume*) to get to school. The tribal authority representative said he was unhappy about young children walking to school:

"We could add more buses, manage them better in terms of routes they take, have some sort of relationship with taxi drivers and the vans that transport kids and have it more controlled ... mainly for primary school kids, the busy roads, lack of safe

[19] As taxis belong to a taxi association, they must follow the rules of the association. Therefore, they can only transport school children during their free time. When they must report to the rank starts the taxis stop transporting school commuters and go back to the rank, regardless if learners have transport or not.

walkways, and shortcuts are not safe as well considering there were no proper designs put in place, but just footpaths that became mature over time."

Young learners do get mugged and have their money stolen. The tribal authority representative said:

"The schools and the local leaders work closely with the police, and random school searches are done to ensure safety in schools, where they look for weapons, Dagga and other drugs, such as Whoonga (also known as nyaope or wunga), to stop them from being sold to young kids, and also to control certain areas which are known to be high risk areas, we have police patrols around those areas."

While there have been upgrades to the roads, changing some of the footpaths into proper routes, tarring, and even taxis accessing more than just the main roads, there is room for improvement. Rain, poor road conditions and the lack of traffic control are threats to learners' safety. Roads are poorly designed with no drainage systems, compromising their integrity due to water ingress. A tribal authority representative stated:

"As per my earlier comment regarding rain and how the road conditions change and lack of traffic control does pose an increased threat to kids' safety. But also due to no proper road designs or drainage system even those roads that were once footpaths and are now transformed into tar roads, have drainage issues which its integrity is compromised under changed weather conditions."

There is room for improvement, and speed humps have been installed, pedestrian walkways introduced, as well as signage and road markings.

6.3 Results: High School Teachers Focus Group

There are not clear indicators of how learners get to school, but based on observations, many walk, or ask for lifts. Teacher 2 stated:

"Modes of transport vary, however from what I've seen, the majority walk, while others wait for the free bus, others take taxis and others have those monthly paid transport collecting them, which in most cases it's the younger kids that use those, unlike the older kids who prefer to use "amatekisi agqomayo" [taxis playing loud music]."

The buses wait outside the school gate the whole day to take kids home. Teacher 5 stated: *‘‘There is a lot of traffic after school. We had to create an area for the buses to wait for the kids as we did not have a proper bus stop, as you can see the school is near the main road*.”

For those who walk, Teacher 3 noticed the following:

> *"Some kids get to school very early, especially those that use monthly paid transport as they tend to have more than one load, so by the time its break time the kids are tired and sleepy and being overcrowded does not help either.*

Absenteeism or late-coming is a huge problem on rainy days, when transport is limited or when the monthly paid transport breaks down leaving children stranded. In such cases, ‘‘reliable communication between the school and the transportation."

Others felt that late-coming did not relate to transport but rather to the fact that some learners simply do not care about rules or leave home too late to make it to school on time. It appears that school attendance, class attendance, and even concentration in class, were all improved when the feeding scheme was introduced:

> *"Over the years I have observed changes where before there was a feeding scheme at school the kids were bunking classes or not focusing as much. But now that they get to eat at school you no longer worry about hunger and such, as everyone is fed and they can focus in class. As it was difficult trying to teach students that were not focusing because they were hungry or thinking about where their next meal would come from, and it makes the extra lessons more productive as they had eaten during their lunch breaks"* [Teacher 2].

Another teacher noted that the school had to “*do a roll call twice a da*y” [Teacher 1], due to learners skipping classes.

Grade 12s face special challenges; for example, some wait for hours on end for transport to go home after their lessons on weekends or during school holidays. The school had to make a designated pick-up and drop-off point to make it safer for the children to wait for transport. Sometimes teachers remain at school until the last child is collected. Teacher 3 stated:

> *"Being a Grade 12 educator, we have extra lessons after school to try and cover the syllabus early so we can start revising for exams early enough to focus on difficult*

sections, so this means learners need to stay behind when the school is out or attend on weekends, where there is limited transportation, and higher transport costs. But the Grade 12s are dedicated and some even walk to attend classes although this might not be the safest action."

One teacher [Teacher 3] suggested: "*If there can be buses for matric students that would help as they don't leave at the same time as the rest of the school*."

Problems can also arise when learners need to go home early. Teacher 1 stated:

"*If schools leave early due to a departmental workshop or when there is no running water, then those kids tend to struggle, as they have to wait until their transport comes as there is no direct transport from here to where they come from. While others opt to hike, and those who are not patient enough walk long distances home, which is not safe.*"

6.4 Results: Primary School Teachers Focus Group

Participants said that primary school learners rely on monthly paid transport vehicles, the government-subsidised bus, minibus taxis or walking to school. All these modes of transport present varying challenges; for example, Teacher 7 said:

"With monthly paid transport we try by all means to get their details as we work with young kids and when they don't arrive at home we receive calls from parents asking us about their children's' whereabouts, so we had to have a system in place for that, and so far it has worked. Grade R and Grade 1 kids make friends early in the year and then forget which transport they use and so end up going home with their new friends. Which is why we now ask the driver to collect them from class or we have them wait outside in a straight line until all children are picked up."

Another problem is that children are registered at school with their documented names (name on birth certificate), but the parents usually use nicknames for the children. It then becomes hard to track who is using which transport, as the children only know their nickname, whereas the school tracks them by their documented name. Another transport-related problem is distance, as Teacher 7 explains: *"Those coming from Ilfracombe tend to struggle with direct transportation, but I think the bus is helping them now; however, they still get to school late."*

One school had no bus [Teacher 10]: "*The bus does not accommodate the kids from this school, though it would be a lot of help considering we deal with young kids*". Worse, is that "*over the years we have had issues with kids being left behind*" [Teacher 6], because parents change the private transport driver but fail to notify the school. Teachers now liaise directly with the drivers to solve these kinds of problems.

Walking also has problems, such as learners being hit by cars, or, in the words of Teacher 6, "*the school is located in an area dominated by unemployed youths, which makes the kids targets and some end up taking drugs or become victims of a mugging*."

Absenteeism or late-coming is common in cold weather and on rainy days, due to illness. Late-coming is seen as a huge issue across all grades. Teacher 7 said: "*We encourage kids to come to school, but the parent has the main responsibility to make sure the kid comes to school*."

6.5. Results: High School Girls Focus Group

When participants were asked reasons for school choice, the results were mixed – from Learner 1: "*It's the closest school*", to Learner 4: "*Other schools were full, so I had no choice but to come here*". Some actively chose the school, such as Learner 2: "*School reputation, I like the school*", and Learner 3: "*It was the only school that I liked.*"

In terms of commuting, most said they took between 30 – 90 minutes to get to school. For example, Learner 1: "*Walking takes me at least 45 minutes, so I leave the house early*", and Learner 2: "*Sometimes I use the bus, and that can take more than an hour, Imfume is far*". Using the bus is not easy, as "*it is always full*", or the learner "*did not live on the route*". One indicated that getting home was the problem: "*Since I live in Emagabheni, it is a challenge to get a taxi going there in the afternoon*" [Learner 4].

The learners noted that sometimes they "*get lucky*" when they "*get a lift*"; otherwise, especially after extra classes, they are forced to walk back home. They do not own bicycles, as such items were only given to boys, and some seemed to think girls riding bikes is "*taboo*" [Learner 3]. In terms of safety, learners indicated that they worried for their safety, due to narrow roads and vehicle blind spots: "*Taxi drivers normally don't care, they once hit me with a mirror and showed no remorse, and when I asked him, he said I didn't see him in the car coming*" [Learner 1]. Some learners wanted speed humps, signage and a sidewalk for pedestrians [Learners 2, 3, 4]. Walking was also unsafe from a crime perspective, as there were "*guys who wait for us,*

guys from the area that target school kids, it is not safe coming towards school; especially in the morning, muggings are high" [Learner 1]. They wanted security, the police and the community to solve this problem for them, such as having the school gate fixed and a security guard at the school [Learners 3, 4].

6.6. Results: High School Boys Focus Group

When participants were asked reasons for school choice, the answers ranged from selecting the school as their siblings had attended the school previously: "*I had siblings attending this school before, so I was also not given a choice, but to attend the same school*" [Learner 8]. Learner 5 said it was the nearest school to him, while Learner 6 said: "*Most schools near my home (Magabheni) were already full, and this was the only school that could take me*". Learner 7 had no choice but this one as "*there were no high schools near where I live, so I had to come here*". Learner 9 had a very interesting reason, claiming he refused to attend his closest school as it was bewitched:

> *"I was sceptical about Esizibeni, because of witchcraft rumours so I decided to come here. In that school there is always a death of a student, each year. And the slaughtering that is done in that school. So, I chose to come here instead."*

When participants were asked about their school commute, they had varying answers. Some walked home because they lived close by, while others walked as they had been ill-treated on the government-subsidised bus: "*The bus means I have to leave home at 5:30am and get to school around 7:30 am. It has a lot of stops and it always overloaded*" [Learner 8]. "*On rainy days the bus windows are not working so the seats are wet, and that will get us dirty*" [Learner 5]; and, Learner 7:

> *"The bus takes longer to drop us off than if I just walk home. The pickup and drop off points are far from where home is. The bus makes me wrinkled and dirty. There are not enough buses, and sometimes the bus does not show up, and this one time the bus almost overturned as the driver was speeding in a gravel road."*

One learner had been assaulted on the bus and so he elected to walk instead, despite the dangers of getting mugged and the fact that it takes him two hours to get home, as it was better than the treatment he had received on the bus:

> *"The bus drivers are rude, and their friends that are always in the bus are abusive. And they have kids that they favour who bullying younger kids. The buses are not safe, so I decided I would walk after the bus conductor slapped me across the face, for stating the seats were dirty and wet and I could not sit on them"* [Learner 6].

None of the learners had voiced any of their ill-treatment or dissatisfaction with the bus; they simply opted to stop using the bus. Learner 7: "*Complaining wasn't going to help with anything.*" One did freelance work for taxis over the weekend to earn money for school transport during the week. They do not own bicycles and felt the route was unsuitable for riding them.

They all felt that their commute to school was not safe. They were happy that police do sometimes come to the school to check for weapons and drugs. They mentioned drug users, "*the wunga boys*", who wait for them near the school to mug them to get money to buy drugs [Learner 5]. Some drug users even snatch their school bags right outside the school [Learner 6]. Learner 7:

> *"I have been mugged on my way to school, and also in the afternoon when we leave late. We always try and walk in groups. I feel unsafe and at times you are seen as a drug addict simply because of where you live, I worry a lot about that."*

The boys suggested an increase in security near the school, the fixing of the school fence, more police patrols in the morning and afternoons, and a community watch [Learners 5, 6]. In terms of traffic safety, they wanted stop signs and pedestrian walkways [Learner 6]. One suggested the bus company be changed, as the current drivers don't care about learners, are rude and abusive, and "*sometimes we find empty bottles of alcohol in the buses and used condoms, which means these buses are used for other purposes when not picking up school kids*" Learner 7]. When asked about their commute, and if their commute affected their academic performance, all the participants stated that although they do feel fatigued from their commute, that they did not think their academics were affected by it, and explained that they took naps after school before doing homework, or did house chores to help them cope.

6.7. Results: Parental Interviews

In terms of school choice, most stated affordability and easy access to the school as the reason behind school choice. Parent 3: *"It was the closest school for my child, they can walk there which makes it convenient and affordable".* Some chose schools further away as they wanted to give their kids a better education. Parent 1: *"I heard it was a good school, as I have relatives that live near that school and their kids were good academically"*, and Parent 6: *"The school is strict, and I wanted the best for my child".* Another one sent their child to their alma mater: *"I went to that school, and so it made sense for my child to go there, and also I didn't want my child walking to school, so this gave me an opportunity to get reliable transport for my child"* [Parent 2]. One said that there was no choice at all: *"The other schools were already full; it was the only school with space"* [Parent 5]. Only one parent did not send their child to a local school; instead, they opted for their child to attend a multiracial school: *"I wanted my children to attend a school that I could afford and also for them to experience different cultures, and by taking them to a multi-racial school I would get to do that"* [Parent 4]. Parent 5 felt they only used the local schools as they lacked the money to send them to other ones:

> *"Currently we have no option but to use the schools available to us, the grant money helps, but it's not enough. At least the kids get to eat at school and we don't have to pay for school fees, but even the admin fee is killing us, which we are not even sure what the admin fee is for, but we don't have it."*

Parent 6 concurred: "*Without work, we cannot send our kids to better schools or even pay for transport to school".* Parents were clearly unhappy with the schools charging an admin fee; for example, Parent 7: *"I would also like to know what the admin fee is for. As I have come to learn that other schools don't even charge that admin fee".* What was also apparent were the challenges and expectation of parents when it comes to school choice and options available to them. Parent 8:

> *"As parents we are limited when it comes to school choice and how our kids get to school. I struggled to find a school for my child. Umnini Primary would not take my child, as they prioritised kids from Sdiya first for space. I had no choice but to send my child to Amagcino since I had to do a late application. Things have changed when it comes to enrolling kids to school. In my days you just showed up with a child*

on the day and they allocate a classroom. Now there are processes that are not even clear that we must follow".

In terms of transport to school, some used the monthly paid vans, driven by *Omalume*. Parent 1: *"I pay for monthly transportation that makes it easier for me to budget and safe for my child as they are collected and dropped off in one point everyday".* They did not think the *Omalume* were problematic:

> *"I would say it is safe considering it could be worse, but also we are aware of load restrictions that there need to have lots of kids to make a trip profitable though we don't know how many kids are per load, however they only take schools where they can make money from transporting the kids"* [Parent 2].

This was despite knowing some children got left behind, because they relied on the teachers to solve the problem. There was a concern that drivers changed, vehicles were overloaded, or other drivers collected children on their behalf, or had a breakdown and so collected children late. Parent 1 worried that, *"The driver forgets my child and so they are stranded at school, or they can get into an accident".* In general, most parents focused on how they struggled to get children to wake up early enough for the transport, especially in winter and on rainy days. Most parents were happy with the government bus introduced in 2015, though they were not sure how the routes were chosen, and it was often so full that they could not use it: *"I was happy about it* [the bus], *but when I realised it was not in the route to my house then it meant my kids could not use the bus"* [Parent 4]. Parent 6:

> "*The bus makes it easier for me. I can make sure my child no longer crosses the road. Since where I stay the road used by speeding taxis and trucks coming from collecting sugar cane in the farms nearby. At times I wake up super early and walk my child to the bus stop so to get the first load. Financially it has helped a lot.*"

Parent 2:

> *"I have experienced school kids and adults getting knocked over by vehicles. But now with the speed humps and the bus, there have been a decrease in exposure to cars for the younger kids. But older kids tend to travel to school by "amaketiki agqomayo". I prefer privately paid transport as my child is still young and I feel*

more secure knowing who transports my child on a daily basis. As the bus leaves the kids behind when it's full."

Another had tried the government bus, but it did not work out, and so now the child walked to school:

"My child walks probably 10 km per day on a return trip, they tried using the bus but my child was always coming back with stories of being bullied or the bus being too full, so I just told him to walk to school" [Parent 3].

Parent 6:

"My kids refuse to use the bus stating it is always full and it leaves them behind based on where we are located. I wish there could be more buses and routes. Each school can have its own designated bus."

Linked to the commute to school was that drugs and crime was an issue. Parent 3:

"I wish the police and Induna can do more about "amapara-drug addicts" as we are not safe. We no longer have freedom to walk around without being worried about being mugged. Also, school pregnancy, kids are getting younger and younger and we see them pregnant."

Parent 6: *"The drug issue and teenage pregnancy is what we should be worried about and lack of jobs."*

6.8. Results: Driver Interviews

Minibus taxi drivers stated that they are not fully committed to transporting school commuters; rather, it is something they do when the time avails itself while waiting for their turn to collect passengers at the rank. Driver 1: *"Most school kids don't have stable mode of transport, so if I have a late start time at the rank and it is not busy, I do a few loads, depending on the schedule."* The extra cash from learners helps them, but it is not their main priority to collect school commuters. Most had collected learners for the last two to three years. They have no formal agreement with the schools, the taxi association, or with the parents, to transport the learners. Driver 2: *"I only take them if at the rank it is not busy."* If they are called back to the rank, they would abandon the school trips and head to the rank, leaving learners behind with no transport.

The *Omalume*, or private transport vehicles used to transport school commuters, had been on the job for two to three years. Drivers require a licence and a specific type of vehicle to undertake this service. Drivers also need to be part of the taxi association and be registered, in order to collect school commuters. Driver 3: *"Not everyone is permitted to load children, without an application with the taxi association, and we all pay the fee as we know each other as drivers."* They charge monthly for their services and take between ten and thirteen learners per trip, although they will do multiple trips. They start their rounds at 6:30am until 8am, and again from 1:30pm to 3pm. They claimed they had never had any accidents or left any learners behind, although only a few occasions when they were stuck, or the car broke down they would ask another driver to pick up their learners; for example, Driver 1: *"On days when I am committed, I make arrangements with other drivers that collect kids in the same school as me to also do my loads, as we help each other and belong in the same association",* and Driver 2: *"I have never been in an accident with the kids or in general*".

The government bus drivers stated that they started working when the buses were first introduced in 2015. Bus Driver 2: *"I applied for a job and I got it".* They needed a professional driver's licence and had responded to an advert for drivers. The schools they transport for include: Umnganiwakhe, Umchothoyi, Amagcino, Esizibeni and Umgababa Primary. They are given directives to collect kids, and to wait at allocated schools until time for collection again in the afternoon. They start their daily pick-up from Ilfracombe at 6:20am. *"I've been given a directive to collect from Ilfracombe train station and start dropping off kids from Amagcino, Mcothoyi and Esizibeni, though I know other drivers do other routes"* [Bus Driver 2]. They do one morning and one afternoon trip per day.

They were unclear about the number of learners they transport every day. They do leave learners behind if the bus is full: *"If the bus is full I don't do any other stops until I reach the first drop off school, I am limited to one trip in the morning and one trip in the afternoon, I leave a lot of commuters behind"* [Bus Driver 1]. There is no formal roll call list for commuters, just a list of schools they cater for and the route they should use. They do not communicate with any parents or the schools. Inspections and vehicle maintenance are done by the bus company: *"Since I started driving this bus in 2015, I have never had any complaints from parents or spoken to them. Only those parents with young children wait with them for the bus, but the rest find their way to the bus"* [Bus Driver 2]. Due to narrow roads, buses keep to the main roads and do not take shortcuts as they can get easily damaged or end up harming

commuters and the general public: *"There are routes we have stopped doing as roads do not allow for a bus to pass, so I am not sure how those commuters get to school"* [Bus Driver 2]. They also said they have had no accidents.

6.9. Conclusion

Interviews and focus groups with the Induna's representative, teachers, parents, learners and drivers show that financial resources, access to information, and the needs of the community influence commuting patterns. The semi-rural nature of the settlement, along with low socio-economic status, crime, and poor transport infrastructure and law enforcement, all influence the school commute. Lobbying from the tribal authority seems to have been successful in terms of the allocation of a government-subsidised bus for school commuters, but there are challenges with this bus, such as bullying and abuse, with the bus itself being untidy, unclean and not suitable for transporting schoolchildren. Other problems are the risk of traffic accidents, speeding, and vehicle overloading of passengers. Of the three passive transport modes, the minibus taxi services seem to be best at self-regulation, but as school commuters are not their main clients, this regulatory system does not protect the school commuters as much as it could. There appears to be little regulatory control of the bus drivers and private transport drivers, both formally and informally. There are also risks associated with walking, such as having to wake up early to start the journey to school, being exposed to unsafe road conditions, crime and fatigue. In general, there is better supervision and attention paid (by adults) to primary school commuters, compared to high school commuters. Contrary to assumptions regarding vulnerabilities, high school boys seem to feel less safe commuting to school than high school girls, according to how boys were more vocal on their experiences than girls, and their most vulnerable experiences involved the presence of girls where they felt compelled to protect and act in the best interests of the girls.

CHAPTER 7: THE PHYSICAL ENVIRONMENT AND THE SCHOOL COMMUTE RESULTS

7.1. Introduction

Based on observations made, this chapter focuses on physical attributes within the school neighbourhoods, to establish the physical environment associated with commuting. It is worth mentioning that the state of the physical environment, particularly that of its roads and paths, not only affects school commuters but the local community as well. The condition of the roads and footpaths used in the area provides a deeper understanding of the challenges faced by learners on their commute to school. This chapter is constructed using field notes and photographic evidence. Thus, it is presented as a type of 'photo essay' meant to illustrate and contextualise the results presented in chapters 4, 5 and 6.

7.2. Path Type and Path Connectivity

Based on overall observation of all routes leading towards the schools, it is apparent that there are no formal constructed walkways; footpaths are used although some have been converted into roads over time. Many of these footpaths have obstructions (such as fallen trees, rocks and plants). Some tarred roads are under construction, but most are dirt roads. Most roads are unplanned, formed ad hoc by residents. Most tarred routes were once shortcuts or footpaths that were converted to roads, due to the popularity of the routes. Roads lack storm water drainage, which results in extensive soil erosion. Burst pipes are a significant problem, as are constant leaks – both of which contribute to the soil erosion problem. In addition to this, most areas are steep and hilly, leaving the area vulnerable to soil erosion (see figures 7.1, 7.2 and 7.3).

Figure 7.1: Route with visible soil erosion, used as a shortcut by school commuters attending Umnganiwakhe High and Umcothoyi High. (**Source**: Own).

Figure 7.2: Soil erosion due to slope used as footpath by commuters. (**Source**: Own).

Figure 7.3: Burst municipal water pipe that has not been reported or fixed, making traversing of this road slippery and dangerous, while also contributing to soil erosion. (**Source**: Own).

7.3. Road type and vehicle stops

There are informal bus and minibus taxi stops, although, for the most part, these vehicles use arbitrary stops along the commute that are not properly marked. These are more convenient for commuters, but more dangerous than properly designated road stops. Most roads are narrow, making it difficult for cars and school commuters to travel safely and pass one another. Incidents of school commuters being hit by cars have been reported in the area and were mentioned during interviews in previous chapters (see figures 7.4 to 7.10). Due to reckless driving and no walk ways for pedestrians, new risk areas for accidents are emerging.

Figure 7.4: Muddy ground due to rain, making it difficult and unsafe for school commuters to walk. (**Source**: Own).

Figure 7.5: A good example of a narrow road, with a blind stop. This is a dangerous road for pedestrians to use. The ‘sidewalk’ or walkway is seldom used because it is sloped and unpaved. (**Source**: Own).

Figure 7.6: An indication of the dangers associated with narrow roads where vehicles and pedestrians jostle for space. (**Source**: Own).

Figure 7.7: Another blind spot identified as a high accident area, where young primary children walking and being dropped off by their transport fail to calculate the speed of the oncoming car, and so, get hit by them. (**Source**: Own).

Figure 7.8: Traffic joining the provisional road here is at a disadvantage, as vehicles on the provisional road do not have to give way to them. (**Source**: Own).

Figure 7.9: Narrow roads with blind spot corners with no safe walkways for pedestrians or enough space for two cars in opposite directions. (**Source**: Own).

Figure 7.10: Gravel road towards Umcothoyi High School popularly used by school commuters to get home. (**Source**: Own).

7.4: Footpaths

According to physical data collected, footpaths are predominant in the area. Footpaths are evident throughout the routes used by pedestrians, although some have been upgraded to tarred roads (see figures 7.11 to 7.14).

Figure 7.11: A typical vehicle track used by vehicles and pedestrians alike. (**Source**: Own).

Figure 7.12: A common type of footpath, where vegetation makes it easy for potential criminals to hide and then attack pedestrians. (**Source**: Own).

Figure 7.13: Footpaths identified from a school gate towards different areas, being used as shortcuts to the main road. (**Source**: Own).

Figure 7.14: Primary school learners commuting to school with a bicycle, which is a rare occasion in the area, and there are no designated routes for cycling. (**Source**: Own).

7.5. Traffic calming measures

There are some visible traffic calming measures such as speed humps (see Figure 7.15).

Figures 7.15: Low speed humps to slow down cars. (**Source**: Own).

7.6. Lack of signage and bus stops

No signs were visible to give directions to clinics or school, and no robot crossings (see figures 7.16 and 7.17).

Figure 7.16: An intersection with no signage at all. This is near Umcothoyi High School. (**Source**: Own).

Figure 7.17: The sides of the road being used as an ad hoc arbitrary bus stop for commuters attending Umchothoyi and Umnganiwakhe High School in the Umnini Tribal Authority, with no proper signage, leaving the learners exposed to the potential risk of being hit. (**Source**: Own).

7.7: Lack of security

There is limited security at some of the schools, which is a concern, as muggings, theft and other crimes occur. Learners are exposed and vulnerable to criminals in the area (see Figure 7.18).

Figure 7.18: Lack of security control on who can access the school premises. (**Source**: Own).

7.8. Unsuitable passenger vehicles

There is evidence of usage of vans to transport school commuters, without proper safety measures or seats. Below is a photograph of a vehicle that could never obtain a licence to carry passengers, in the way it is currently used to transport learners (see Figure 7.19).

Figure 7. 19: Illegal use of a small ‘bakkie’ to ferry learners to school and back. There are primary school learners in the back of this van. (**Source**: Own).

7.19. Conclusion

Dusty, narrow roads, undesignated/informal bus stops and poor road conditions all affect the school commuting experience. They are often exposed to the elements such as cold or hot weather. Poor visibility exposes younger learners to the possibility of being hit by moving cars. With a lack of communication and a direct relationship with parents, younger children can be left behind by the bus or end up going missing, as there are limited or no proper communication systems in place between parents and transport drivers. Lack of adequate signs, safe crossings or pedestrian walkways, and the use of shortcuts, can make the commuter vulnerable to crime, and reduce the desire to attend school. In previous chapters, it was reported that fewer learners show up at school on rainy days, the state of the roads may aggravate this situation. What is evident is the lack of formal infrastructure, although there are improvements such as speed humps and construction alongside the main roads. There is an urgent need for proper road planning, safe pedestrian walkways, safe school crossings and better signage – not only to protect learners on their commute to school, but also to better serve and protect the local community and all road users.

CHAPTER 8: CONSOLIDATED RESULTS AND DISCUSSION

8.1. Introduction

Based on data collected, this discussion chapter will focus on questionnaire survey data (from the primary schools and high schools), interviews and focus groups, as well as the photographic data. The chapter layout is as follows: firstly, there is a presentation on the consolidated results from the primary and high schools, with an analysis and discussion; secondly, the interview and focus group results are discussed; and lastly, the discussion of the photographic chapter is presented, as it offers a visual representation of the challenges the learners face regarding their daily commute to school.

8.2. Discussion of the Quantitative Survey Results

8.2.1. The demographic and socio-economic profile: comparing the primary and high schools

Of the 350 questionnaires distributed, only 147 questionnaires (24%) were returned and answered in a satisfactory manner. In this chapter, the totals in each table represent the total number of responses given for each question (see Table 8.1):

Table 8.1: Composition of respondents. (**Source**: Own).

S/N	Category of respondent	No. of respondents
1.	Umnganiwakhe High School	23
2.	Mcothoyi Primary School	11
3	Esizibeni Comprehensive High School	6
4.	Amagcino Primary School	30
5.	Umgababa Primary School	30
6.	Umnini Primary School	37
7.	Sidiya Primary School	10
	Total	**147**

All participants (parents) self-reported as being Black African and most were linguistically homogenous (IsiZulu); one spoke IsiXhosa and another one spoke Sesotho. Based on geographical location, 85 (58%) live in Umgababa, 32 (22%) in Umnini, three (2%) in Mfume, and one each in Danganya, Mgobhozini, Umlazi, Hlanzeni, Mashiwase and Ilfracombe. All except Umlazi form part of the Umnini Tribal Authority.

Overall, across all the schools, some 62% of learners (92/147) live with a single parent (although most households have extended family members living under the same roof). Single parenthood is very common in the sample. This is in line with national South African trends (Rabe & Naidoo, 2015; StatsSA, 2015). The level of unemployment is very high at 64% of households (94/147) reporting that they are unemployed, which is much higher than the South African average. High school learners were more likely to be in a household with someone employed, than primary school learners, at 52% (21/40). In terms of education levels, fathers are generally much less educated than the mothers, and primary school fathers are most likely to be the least educated (see Table 8.2):

Table 8.2: Education levels of parents, by primary and high school. (**Sourc**e: Own).

Level of education	**Mothers of primary school learners 107 in total**	**Fathers of primary school learners 70 in total**	**Mothers of high school learners 37 in total**	**Fathers of high school learners 14 in total**	**Total 246**
No school	12 (11%)	55 (62%)	2 (5%)	14 (44%)	83 (34%)
Completed primary school	22 (20%)	2 (3%)	3 (8%)	3 (9%)	30 (12%)
Completed high school	64 (60%)	18 (26%)	28 (76%)	12 (37%)	122 (50%)
Tertiary educated	9 (8 %)	6/ (8 %)	4 (11 %)	3 (9 %)	22 (9%)

8.2.2. Reasons for school choice: comparing primary and high schools

In terms of school choice, for primary school parents the dominant reasons were that they selected the school based on a good management team and good teachers (see Table 8.3). For high school parents, affordability and proximity to home were the most important (see Table 8.4). Overall, affordability and a strong school management dominate as the most important reasons for school selection by the parents (see Table 8.5):

Table 8.3: Primary schools: reason for school choice (actual number of responses). (**Source**: Own).

Reason for school choice	Umgababa	Amagcino	Sidiya	Umnini	Total	SD
The school management team is strong	17	10	4	26	57	+2SD
Good teachers – i.e. qualified, good reputation	10	5	10	28	53	+2SD
This is a school I can afford	10	4	10	28	52	+1SD
It offered me value for money, in my opinion	8	7	10	27	52	+1SD
Good discipline – i.e. no bullying, school well managed	12	11	5	14	42	+1SD
It is close to my home	6	6	6	19	37	+1SD
Another one of my children was already enrolled here	5	2	5	23	35	-1SD
My child wanted to go to this school, my child chose it.	12	5	0	17	34	-1SD
Previous generations attended the school, e.g. father, grandmother	9	3	9	10	31	-1SD
I chose this school for religious reasons	12	6	4	0	22	-1SD
Good academic results/facilities (matric pass rate)	3	4	1	3	11	-2SD
I chose it as I wanted my child to learn in the specific language of instruction	3	0	0	0	3	-2SD

Note: Parents could select any number of options that they agreed with.

Table 8.4: High schools: reason for school choice (actual number of responses). (**Source**: Own).

Reason for school choice:	Umnganiwakhe	Esizibeni	Umcothoyi	Total	SD
This is a school I can afford	10	3	6	19	+3SD
It is close to my home	12	1	2	15	+2SD
The school management team is strong	0	5	5	10	+1SD
It offered me value for money, in my opinion	0	0	6	6	-1SD
I chose it I wanted my child to learn in the specific language of instruction	0	2	4	6	-1SD
My child wanted to go to this school, my child chose it.	0	0	5	5	-1SD
Good discipline – i.e. no bullying, school well managed	0	3	3	3	-1SD
Previous generations attended the school, e.g. father, grandmother	0	1	2	3	-1SD
Good teachers – i.e. qualified, good reputations	0	1	2	3	-1SD
I chose this school for religious reasons	0	1	2	3	-1SD
Another one of my children was already enrolled here	0	0	1	1	-1SD
Good academic results/facilities (matric pass rate)	1	0	0	1	-1SD

Note: Parents could select any number of options that they agreed with.

Table 8.5: Factors for school choice: combined primary and high school data. (**Source**: Own).

Reason for school choice:	High Schools	Primary Schools	Total	SD
This is a school I can afford	19	52	71	+2SD
The school management team is strong	10	57	67	+2SD
It offered me value for money, in my opinion	6	52	58	+1SD
Good teachers – i.e. qualified, good reputation	3	53	56	+1SD
It is close to my home	15	37	52	+1SD
Good discipline – i.e. no bullying, school well managed	3	42	45	+1SD
My child wanted to go to this school, my child chose it.	5	34	39	-1SD
Another one of my children was already enrolled here	1	35	36	-1SD
Previous generations attended the school, e.g. father, grandmother	3	31	34	-1SD
I chose this school for religious reasons	3	22	25	-2SD
Good academic results/facilities (matric pass rate)	1	11	12	-2SD
I chose it I wanted my child to learn in the specific language of instruction	6	3	9	-2SD

Note: Parents could select any number of options that they agreed with.

8.2.3. Nearest school and travelling distances: comparing the primary and high schools

Based on the contingency analysis of school location and proximity, high school learners are less likely to be enrolled in the closest school to where they live and travel longer distances to get to school (see Table 8.3). Statistically, using Fischer's Exact Probability Alternative Hypothesis, there is a 0.065 probability for primary school learners to not be enrolled in their nearest school, versus a 0.097 probability for high school learners to not be enrolled in their nearest school (see Table 8.4). This may be due to a fewer number of high schools overall when compared to the number of primary schools, which forces high school learners to travel further to find a high school.

Table 8.6: Enrolment in closest school, by primary and high school. (**Source**: Own).

School type	Not enrolled in the closest school	Are enrolled in the closest school	Total
Primary school	32 (30%)	75 (70%)	107
High School	18 (45%)	22 (55%)	40
Total	50 (34%)	97 (66%)	147

The comparison between distance travelled among high school and primary school commuters indicates that 10% of primary school learners (11/106) travel less than 2 kilometres, while for high school commuters, 15% do so (6/40), while 47% of primary school learners travel 2-4 km in distance, compared to 45% of high school learners who travel the same distance. There are also slightly more high school learners than primary school learners commuting between 4-8 km (18% primary school learners versus 20% high school learners). There is a substantial difference in terms of the 8-12 km bracket, with 18% of primary school learners travelling this distance, compared to only 5% of high school learners travelling the same distance (see Table 8.6). Some primary school learners seem to have an unusually long commute for the schools under study. Only a few learners, 12 (8%) overall, travel more than 12 km per day, and there is no significant difference between the primary and high school learners in this bracket. That said, some 21% of the learners travel more than 8 km a day (one way), which is well beyond the South African-approved 5 km limit for learners to travel to school. Worse still, is that many of these learners travelling these extensive distances each day are 'very poor' to 'extremely poor', as can be seen in Table 8.8 and Figure 8.2.

Table 8.7: Distance travelled to school, by primary and high schools. (**Source**: Own).

School type	Less than 2	2-4 km	4-8 km	8-12 km	12-20 km	20 km+	Total
Primary School	11 (10%)	50 (47%)	19 (18%)	19 (18%)	6 (6%)	2 (2%)	106
High School	6 (15%)	18 (45%)	8 (20%)	2 (5%)	4 (5%)	2 (5%)	40
Total	17(12%)	68 (46%)	27(18%)	21 (14%)	9 (6%)	4 (3%)	146

Using Pearson's Chi-square test, the likelihood ratio, with the chi-square at 6.345, shows that high school commuters tend to travel longer distances in relation to primary school commuters. This is substantiated in Figure 8.1. Although sample sizes are not the same, based on the test with Chi-square at 4.132 and probability at 0.1267, there seems to be significant statistical analysis to assume the above probability to be true (see Table 8.7).

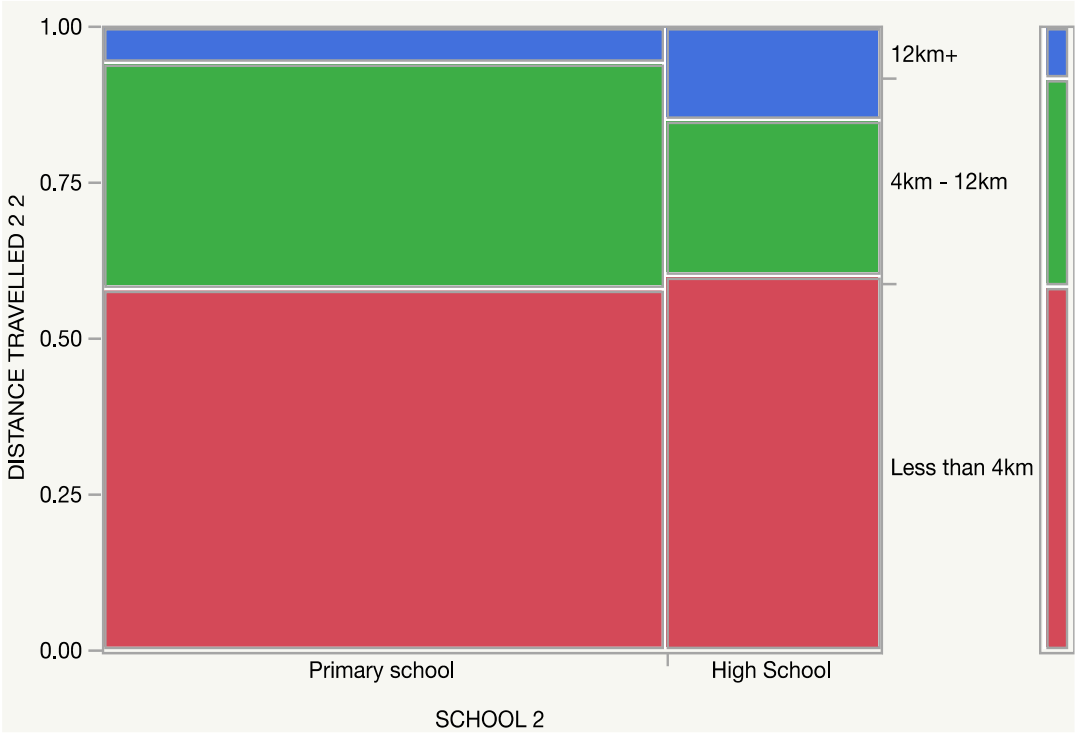

Figure 8.1: Contingency analysis of distance travelled by school type mosaic plot. (**Source**: Own).

The 'extremely poor' and 'very poor' households have a large percentage of learners (8% and 12%, respectively) who travel the longest distance (above 12 km), while the less impoverished groups ('better off than most') have no learners who travel this range in distance (see Figure 8.1, Figure 8.2 and Table 8.8). Thus, ‘extremely poor’ and ‘very poor’ learners travel the longest distance, they are the most affected by the negative impacts of a long commute. They do not have money to afford transport, but also might not be on the route of the subsidised bus. They have no option but to walk to school. They have to home early, perhaps without food or money for lunch and rely on the school feeding scheme for food. Which can affect their ability to concentrate as they are tired from walking long distances and perhaps suffer from lack of nutrition. They might not have supper or have energy to do homework.

Table 8.8: SES SD category by distance travelled. (**Source**: Own).

SES Category by SD	Less than 4 km	4-12 km	12 km+	Total
Extremely poor	14 (54%)	10 (38%)	2 (8%)	26
Very poor	27 (52%)	19 (37%)	6 (12%)	52
Poor	27 (63%)	14 (33%)	2 (5%)	43
Not so poor	15 (75%)	3 (15%)	2 (10%)	20
better off than most	2 (50%)	2 (50%)	0	4
Total	85	48	12	145

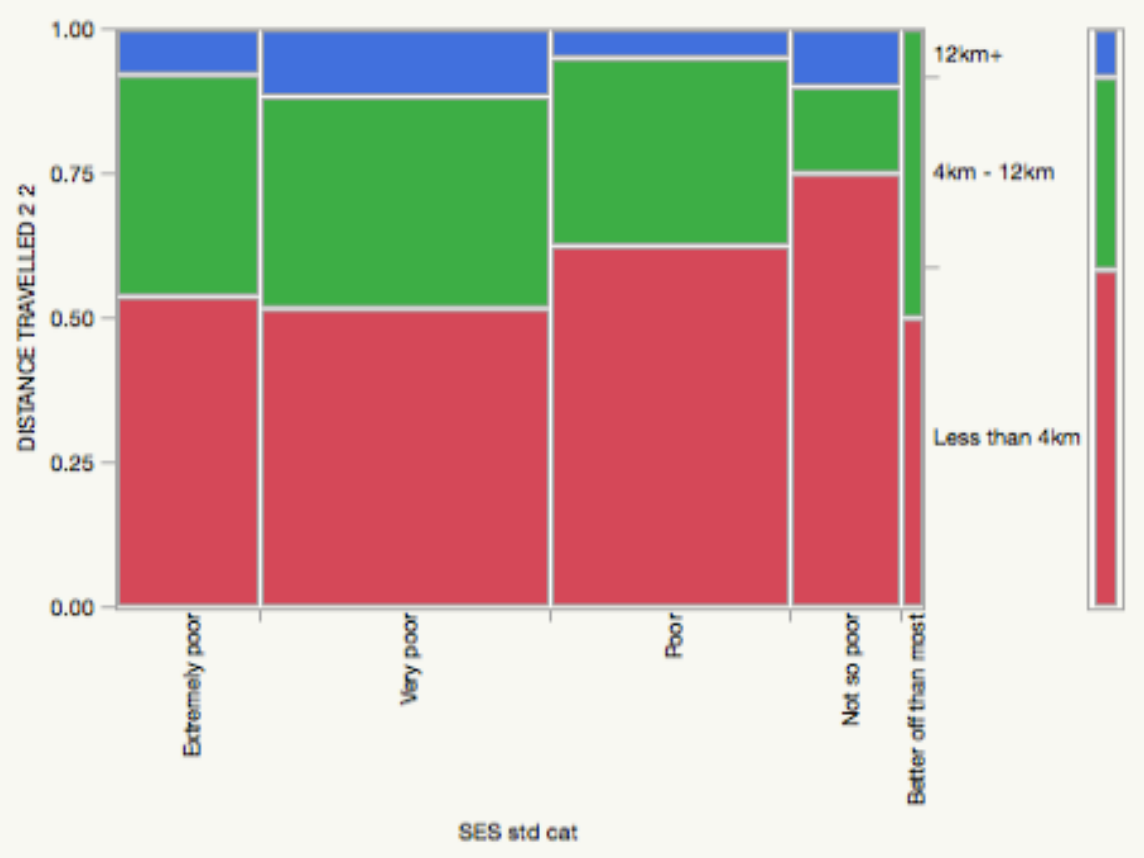

Figure 8.2: Contingency analysis of distance travelled by SES SD category mosaic plot. (**Source**: Own).

8.2.4. Mode of transport: comparing the primary and high schools

Based on a contingency analysis between high schools and primary schools, it can be observed (see Figure 8.3) that most primary school participants stated an inability to afford bicycles as the main reason for walking or using other modes of transport. High school participants also voiced the same, but a higher percentage of high school participants stated that they walk to school, compared to primary school learners, so this may be age related.

When using standard deviation (see Table 8.9) there are three categories (green = most important reason, blue = typically common reasons, and yellow = least important reasons). The child not owning a bike is the most important reason for not actively commuting to school by bike. There may be an opportunity to help this community by providing cheap, robust bicycles. This was true for both the primary and high school learners (see Figure 8.1). There are other hurdles to be overcome including distance, safety issues and the weather.

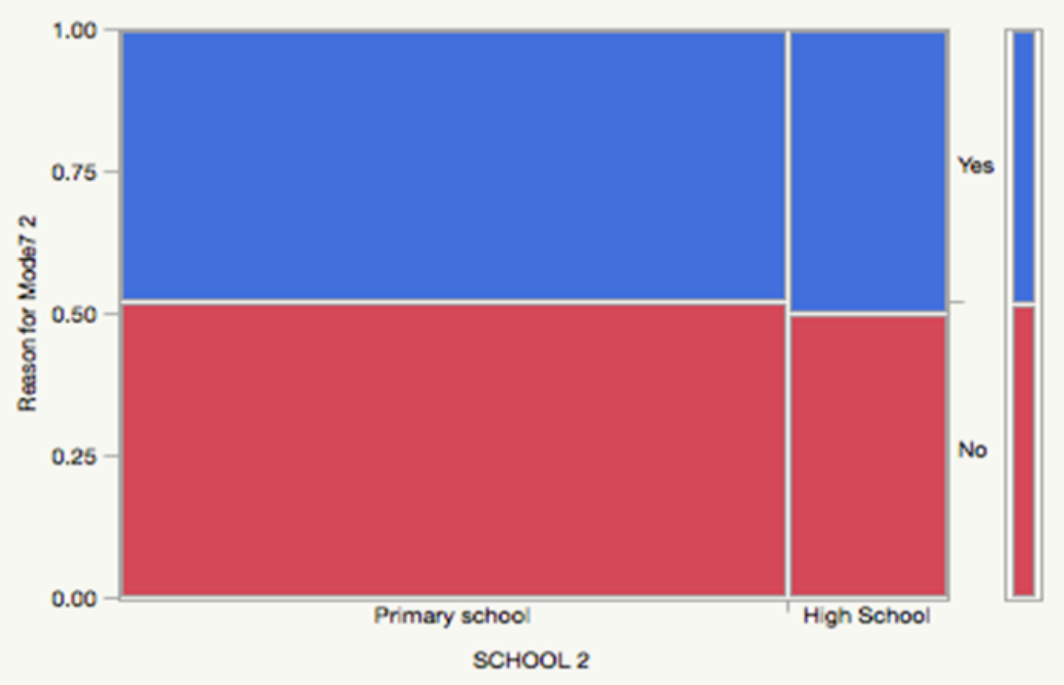

Figure 8.3: Contingency analysis of 'My child doesn't have a bike/we cannot afford one' for primary schools and high schools using mosaic plot. (**Source**: Own).

Table 8.9: Reason for not actively commuting to school, across all schools. (**Source**: Own).

Reason	Yes	No	SD
My child does not have a bike/we cannot afford one	50 (48%)	54 (52%)	+3SD
It is too far to walk/ride a bike	21 (20%)	83 (80%)	+1SD
It is too dangerous to walk/ride a bike (crime)	18 (17%)	86 (83%)	+1SD
I don't trust my child to walk/ride alone	15 (15%)	88 (85%)	+1SD
It isn't good to walk/ride if the weather is bad/cold/rainy	15 (14%)	89 (86%)	+1SD
The traffic is too bad/dangerous to walk/ride	13 (13%)	91 (88%)	-1SD
My child is too young to walk/ride	10 (10%)	94 (90%)	-1SD
The school bag is too heavy to carry all the way to school/put on a bike	7 (7%)	97 (93%)	-1SD
My child refuses to walk/ride to school	6 (6%)	98 (94%)	-1SD
My child may get lost on the way	5 (5%)	99 (95%)	-1SD
My child is not healthy/strong enough to walk/ride to school	2 (2%)	102 (98%)	-1SD
I want to make sure my child gets to school so I drop him/her at school or take them myself to school	2 (2%)	102 (98%)	-1SD

8.2.3. Comparing results by socio-economic status (SES)

In order to determine SES, two categorising methods were used for statistical analysis. Points were allocated using a scoring system that assigned points depending on how participants answered the posed questions. SES answers were either given 1 point, 2 points or 3 points, depending on where they featured in influencing the SES of the participant. For example, having smartphones, electrical appliances and other responses like these would result in a single point per answer, while having an employed family member, medical aid or vehicles, and other responses like these, would each result in 2 or 3 points (see Appendix D). The combined points gave a total SES score for each household.

A three-grouping method for data analysis was used: high (scores between 36 and 22), medium (scores between 21 and 14) and low (scores between 13 and 3). On this basis, contingent analysis for high, medium and low categories was used. The second method sorted the scores from highest to lowest scoring in the SES using standard deviation, that resulted in five category groupings: 'extremely poor' (scores between 3 and 9), 'very poor' (scores between 10 and 17), 'poor' (scores between 18 and 24), 'not so poor' (scores between 25 and 32) and 'better off than most' (scores between 33 and 36).

An attempt was made to use both methods to analyse and discuss the data collected and compare the correlation between the statistical methods used. The Umnini Tribal Authority consists of relatively poor households. According to the standard deviation score, it was clear that a high number of households (82%) fell under 'extremely poor', 'very poor' and 'poor', compared to the remainder that fell under 'not so poor' (15%) and 'better off than most' at only 3%. This can be attributed to the high unemployment rate and dependency on government grants. Parents are also not well educated, and many learners only have one primary caregiver (see Table 8.10):

Table 8.10: Socio-economic status of the area under study. (**Source**: Own).

No. of households	Percentage	Standard Deviation	Category
26	17%	-2SD	Extremely poor
52	35%	-1SD	Very poor
43	30%	+1SD	Poor
22	15%	+2SD	Not so poor
4	3%	+3SD	better off than most

The predominantly residential areas for school commuters in the study were identified as being Umnini and Umgababa (see Table 8.11 and Figure 8.4). The other areas are on the outskirts of the Umnini Tribal Authority, so it is possible that people living in these areas are sending their children to schools outside of the area under study. More ‘better off than most’ live in Umnini than Umgababa, but none live in the other areas. It is possible that ‘better off than most’ households send their learners to schools outside of the area under study. To establish if this is the case, a more in-depth survey in terms of household school choice would have to be conducted. Most learners hailing from Umgababa are in the ‘very poor’ category, compared to the majority in Umnini being either ‘poor’ or ‘not so poor’, so it can be said that Umnini is home to wealthier people.

Table 8.11: Contingency table: SES standard category by area. (**Source**: Own).

Areas	Extremely poor	Very poor	Poor	Not so poor	better off than most	Total
Danganya	0	1 (50%)	1 (50%)	0	0	2
Hlanzeni	0	0	1 (100%)	0	0	1
Ilfracombe	0	0	1 (50%)	1 (50%)	0	2
Imfume	2 (50%)	1 (25%)	0	1 (25%)	0	4
Mashiwase	0	0	1 (100%)	0	0	1
Mgobhozini	0	1 (100%)	0	0	0	1
Umgababa	21 (21%)	42 (42%)	27 (27%)	9 (9%)	2 (2%)	101
Umlazi	0	1 (100%)	0	0	0	1
Umnini	3 (9%)	6 (18%)	11 (33%)	11 (33%)	2 (6%)	33
Total	26	52	42	22	4	146

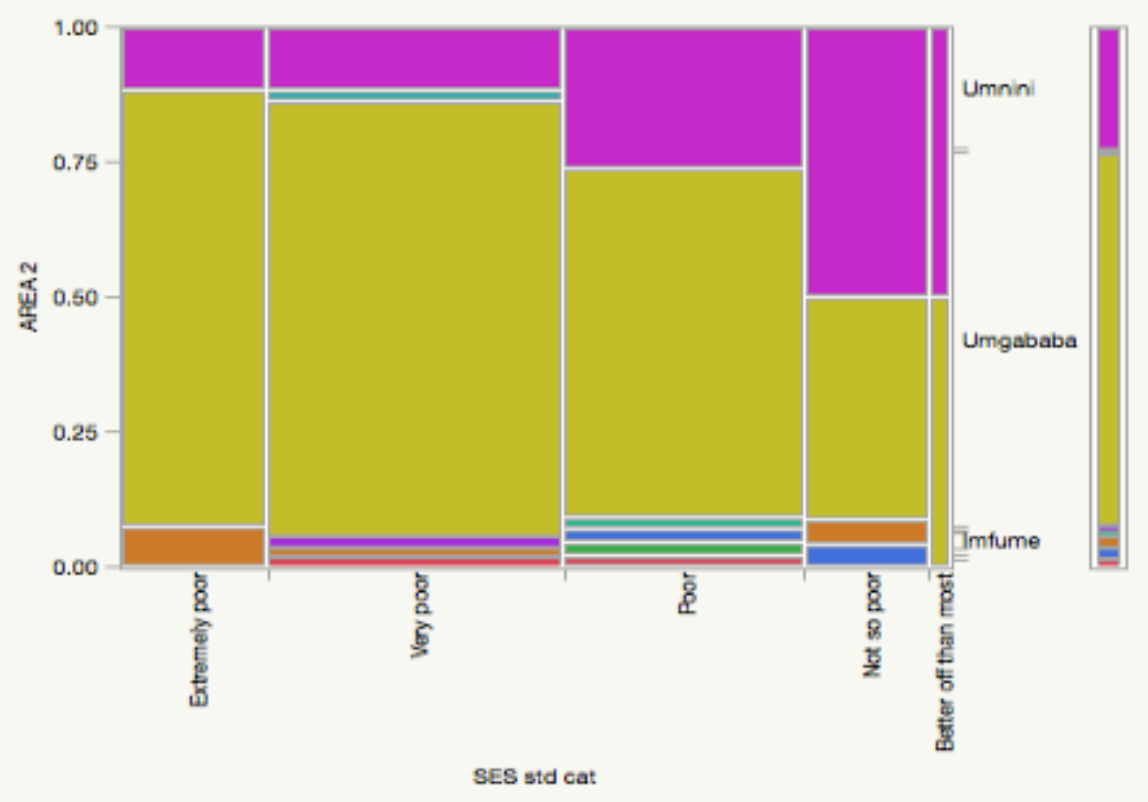

Figure 8.4: Contingency analysis of area by SES SD category mosaic plot. (**Source**: Own).

8.2.5. SES and time taken to get to school

By dividing the overall number of participants into three groups, the low SES group is the least likely to only take 15 minutes or less to get to school (see Table 8.12 and Figure 8.5). The highest SES does not take more than 45 minutes to get to school, which may be an indicator of

their ability to use private vehicles or minibus taxis to get to school. Of concern is that the less well-off learners (economically) take the longest time to get to school.

Table 8.12: Time taken to get to school by SES. (**Source**: Own).

Category	Less than 15 min	16 min - 30 min	31min - 45min	46min - 60min	Total
Low	10 (20%)	22 (43%)	18 (35%)	1 (2%)	51
Middle	18 (33%)	15 (28%)	17 (31%)	4 (7%)	54
High	13 (30%)	16 (37%)	14 (33%)	0	43
Total	41	53	49	5	147

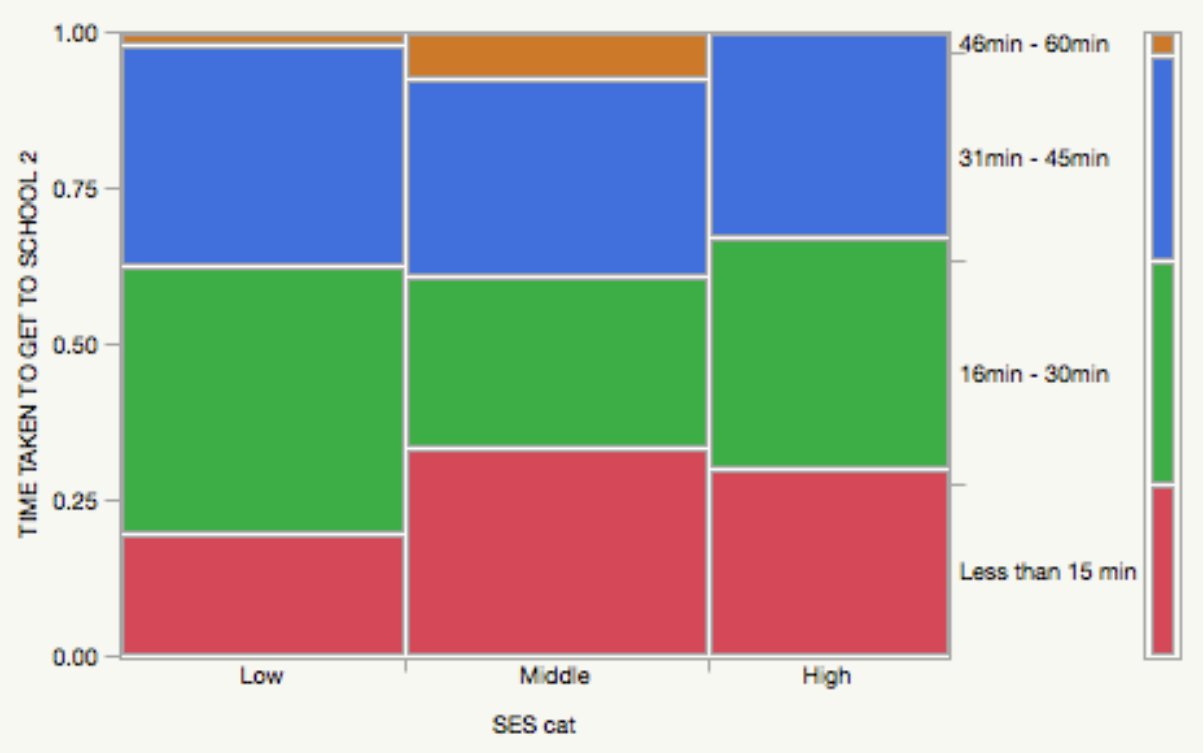

Figure 8.5: Contingency analysis of time taken to get to school by SES cat mosaic plot. (**Source**: Own).

In terms of the time taken to commute home, the 'very poor' category stated travelling more than 46 minutes to get home on a single trip, making this group an outlier (see Figure 8.5 and Figure 8.6).

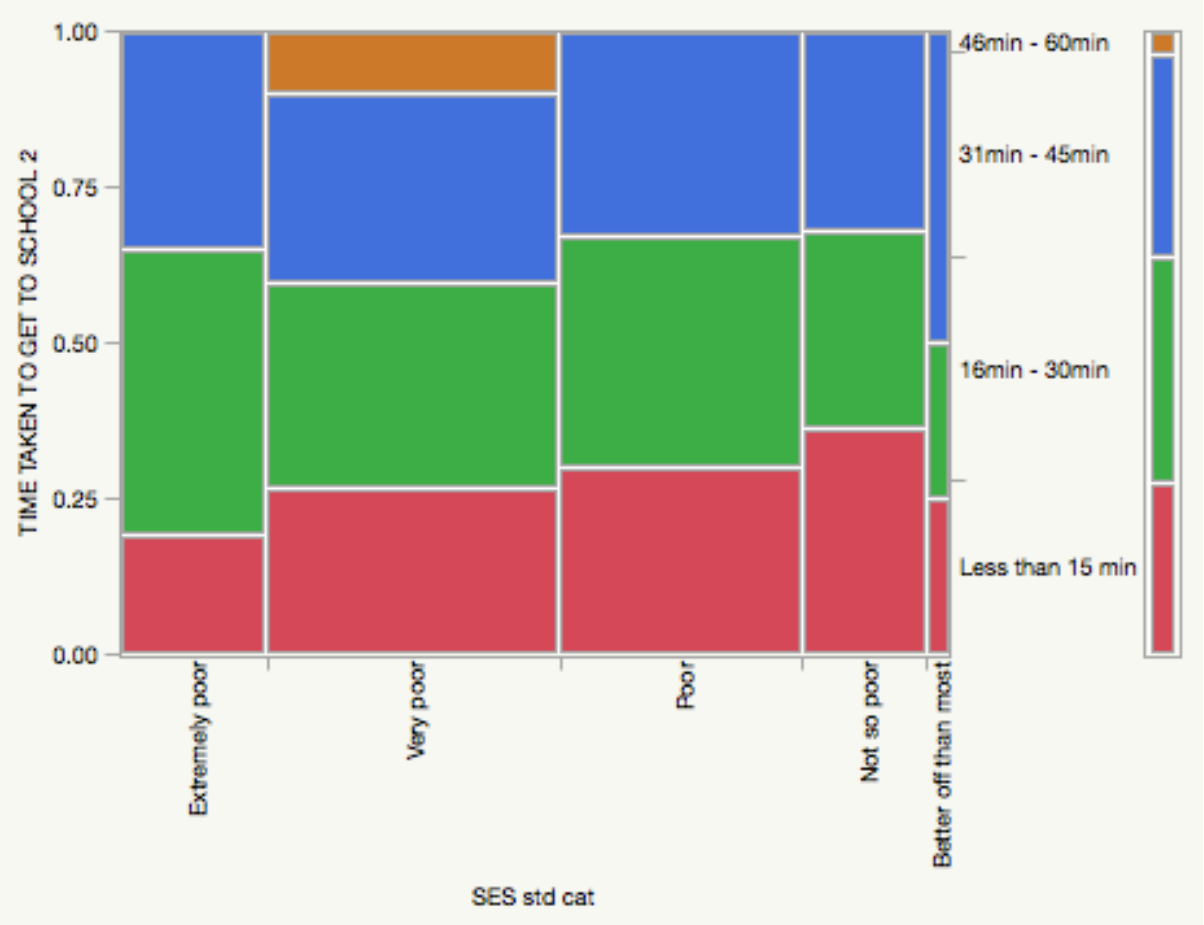

Figure 8.6: Contingency analysis of time taken to get to school by SES SD mosaic plot. (**Source**: Own).

8.2.6. SES and school enrolment across all schools

Based on the socio-economic status, Amagcino Primary, Sdiya Primary and Umgababa Primary School learners generally fall into the lower SES, while Umnini Primary has the greatest range of learners in terms of SES. Overall, the school has the highest SES learners of the schools under study. Esizibeni High, Umcothoyi High, and Umnganiwakhe High are better off than primary schools, but worse off than Umnini (see Figure 8.4). The Connecting Letters Report highlights that in terms of SES, Umnini is an outlier from the sample (see Table 8.8). Umnini Primary's economic status differs among all the schools collectively, while also indicating that school learners there have a higher SES score than all the other primary schools. These results are significant, based on the Pearson Probability of 45.835 according to the Chi-square test done, as a positive value show pairs of means that are significantly different.

Table 8.13: Connecting Letters Report. (**Source**: Own).

School	Level	Level	Mean
Umnini Primary School	A		22.756757
Esizibeni High School	A	B	20.166667
Umcothoyi High School	A	B	19.181818
Umnganiwakhe High School	A	B	17.695652
Umgababa Primary School		B	14.300000
Amagcino Primary School		B	13.566667
Sdiya Primary School		B	12.700000

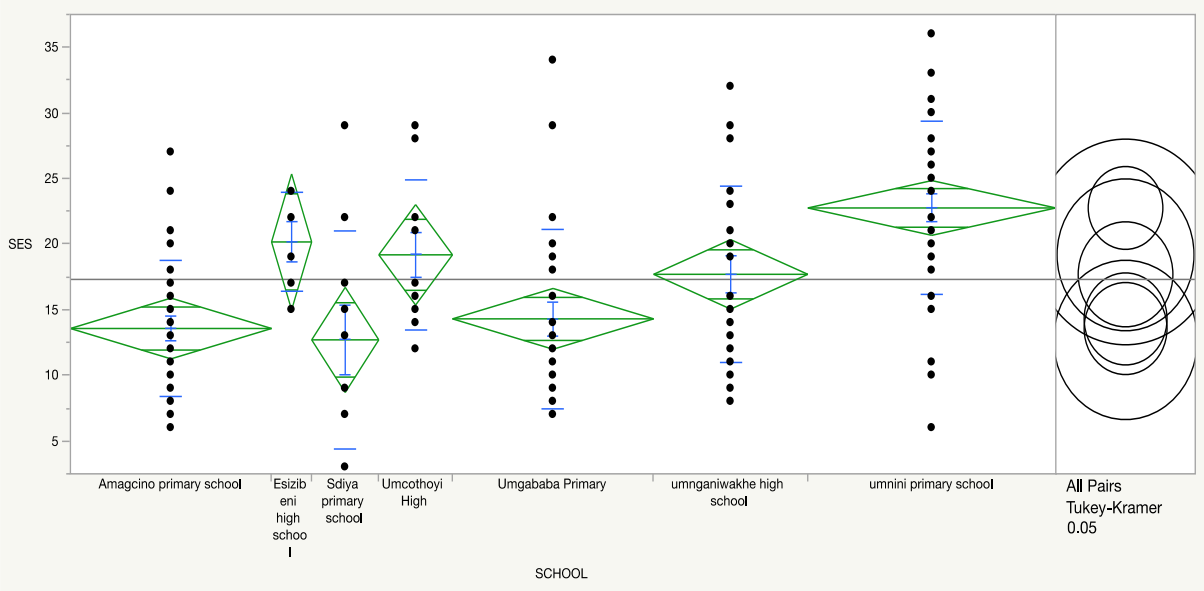

Figure 8.7: One-way analysis of socio-economic status by school. (**Source**: Own).

What can be observed is that for the ‘better off than most’ category, all learners who fall under this category are primary school learners, while high school learners dominate the 'very poor', 'poor' and 'not so poor' categories (see Table 8.13 and Figure 8.7). Though the data collected for high schools was less than that collected for primary schools, according to the Pearson test, the probability of the results was 0.0511, which makes the results valid. The ‘better off than most’ group is the outlier in this analysis. The analysis of primary school and high school enrolment by standard deviation SES, indicates that it may be that the ‘better off than most’ groups are not enrolling their children in high schools in their areas, and may instead be opting to ferry their children out of the area to what is perceived to be better-quality schools. This possibility is supported by an ever-growing body of South African literature on the exodus of more resourced learners from under-resourced schools to better resourced ones (see Figure 8.8 and Table 8.14).

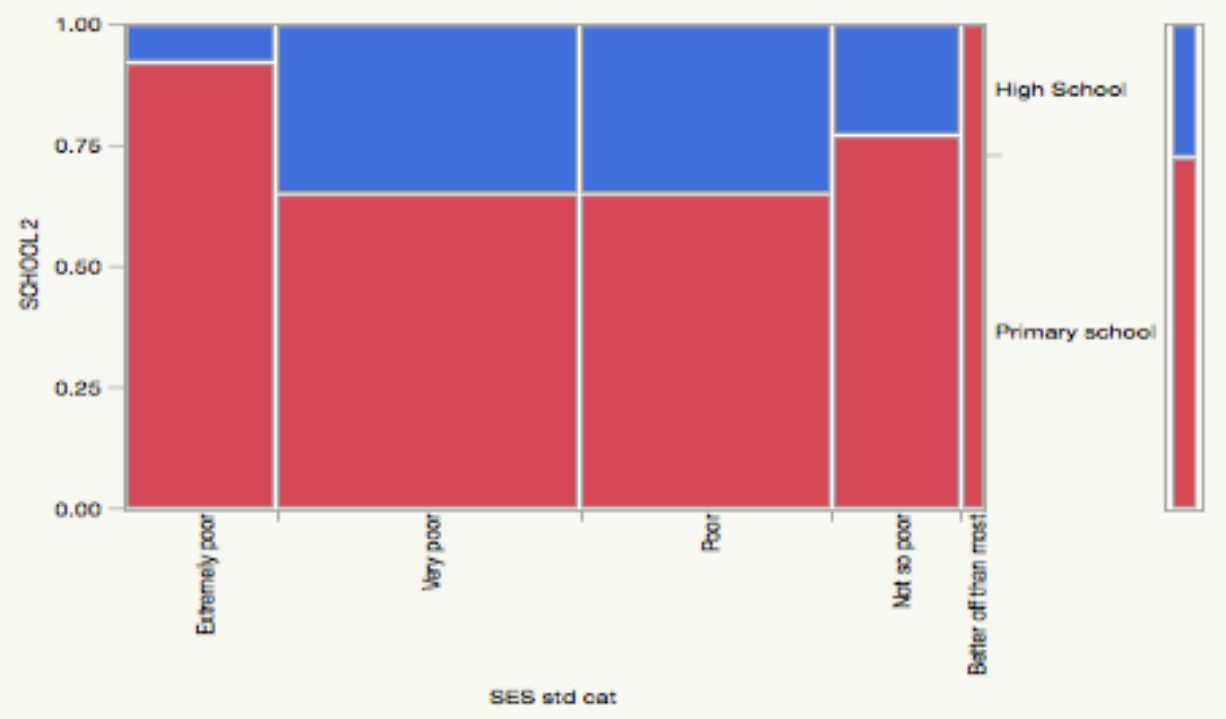

Figure 8.8: Contingency analysis of schools by SES SD mosaic plot. (**Source**: Own).

Table 8.14: Comparing SES by SD and high schools versus primary schools. (**Source**: Own).

SD Category	Primary school	High School	Total
Extremely poor	24 (92%)	2 (8%)	26
Very poor	34 (65%)	18 (35%)	52
Poor	28 (65%)	15 (35%)	43
Not so poor	17 (77%)	5 (23%)	22
better off than most	4 (100%)	0	4
Total	107	40	147

8.2.7. SES and type of household the learner is living in (across all schools)

Using the different SES groups, there is a trend that the lower and middle SES learners are overwhelmingly more likely to be in a single-parent household. Households with both parents are of a higher SES status than those who are in single-parent households (see Table 8.9, Figure 8.5 and Figure 8.9). Despite this, Figure 8.6 and Table 8.10 indicate that for all the households, receiving a government grant of some type is very important. As the SES group becomes relatively ‘wealthier’, so the number of households receiving a government grant decline.

Table 8.15: SES and type of household (single, married, living with guardian). (**Source**: Own).

Category	Living with guardian	Married Parents	Single Parent	Total
Low	5 (10%)	3 (6%)	42 (84%)	50
Middle	2 (4%)	15 (28%)	37 (69%)	54
High	3 (7%)	27 (63%)	13 (21%)	43
Total	10	45	92	147

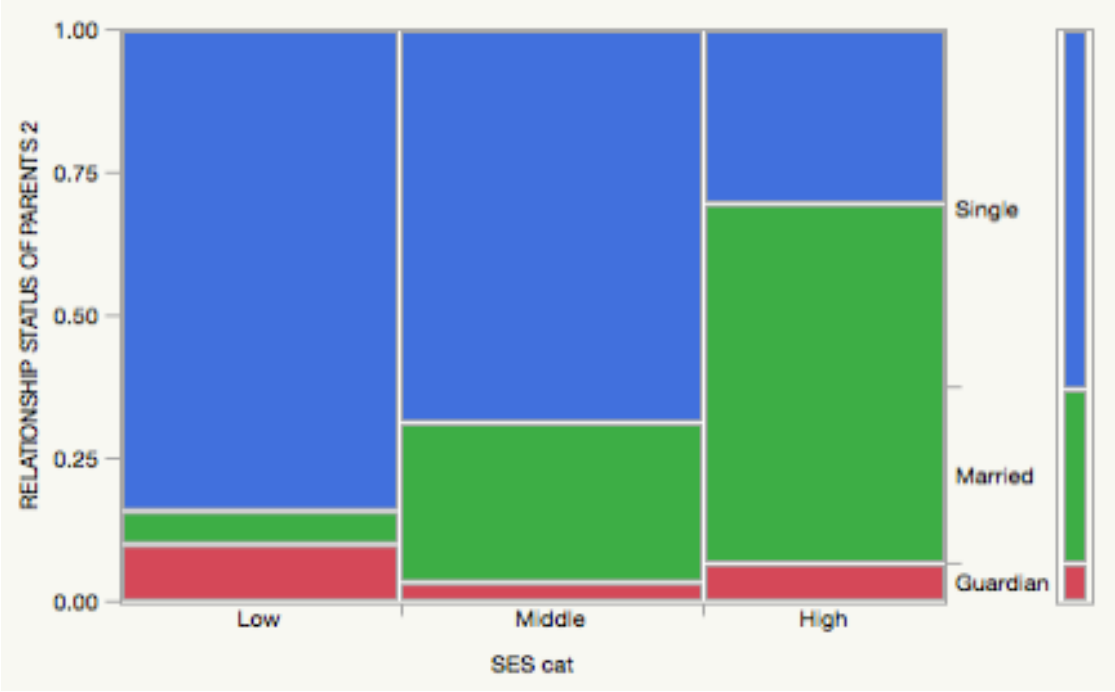

Figure 8.9: Contingency table: **s**chool by relationship status of parents compared to SES. (**Source**: Own).

The ‘better off than most’ category consists of married and single parents and no guardians, yet the majority of the ‘not so poor’ and ‘better off than most’ learners are far more likely to be living with both parents who are married to each other. Furthermore, children who live with

their fathers are not in the 'extremely poor' category (see Table 8.16 Figure 8.10 and Figure 8.11).

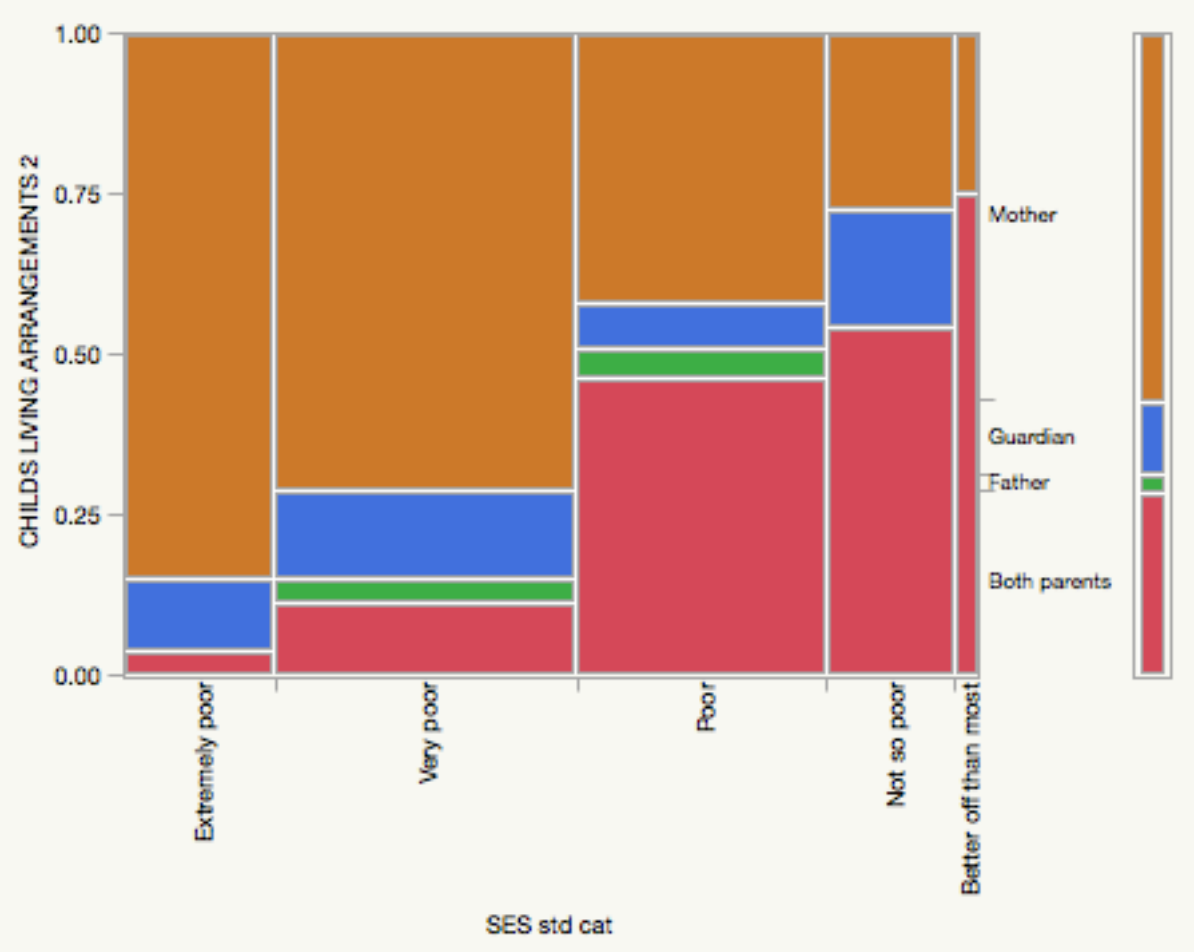

Figure 8.10: Contingency analysis: SES SD category by 'with whom the learner lives' mosaic plot. (**Source**: Own).

Table 8.16: Contingency table: SES SD category by 'with whom the learner lives'. (**Source**: Own).

SES Category by SD	Guardian	Married Parents	Single Parent	Total
Extremely poor	2 (8%)	1 (4%)	22 (88%)	25
Very poor	5 (10%)	7 (13%)	40 (77%)	52
Poor	0	20 (47%)	23 (53%)	43
Not so poor	3 (14%)	14 (63%)	5 (23%)	22
Better off than most	0	3 (75%)	1 (25%)	4
Total	10	45	91	146

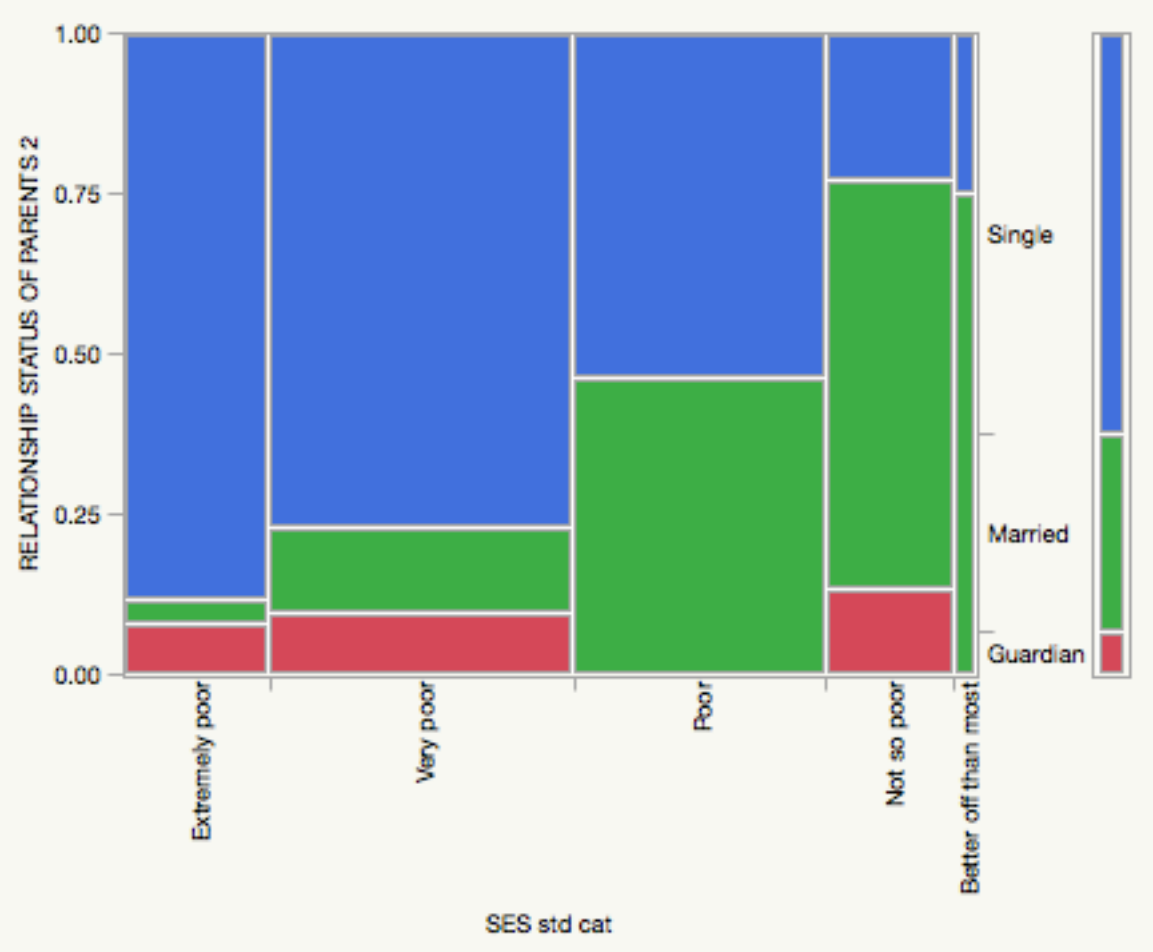

Figure 8.11: Contingency analysis: relationship status of parents by SES SD category mosaic plot. (**Source**: Own).

Table 8.17: School by government grant recipients. (**Source**: Own).

Categories	No grant	Receiving a grant	Total
Low	8 (16%)	43 (84%)	51
Middle	19 (35%)	35 (65%)	54
High	20 (48%)	23 (55%)	42
Total	47	101	147

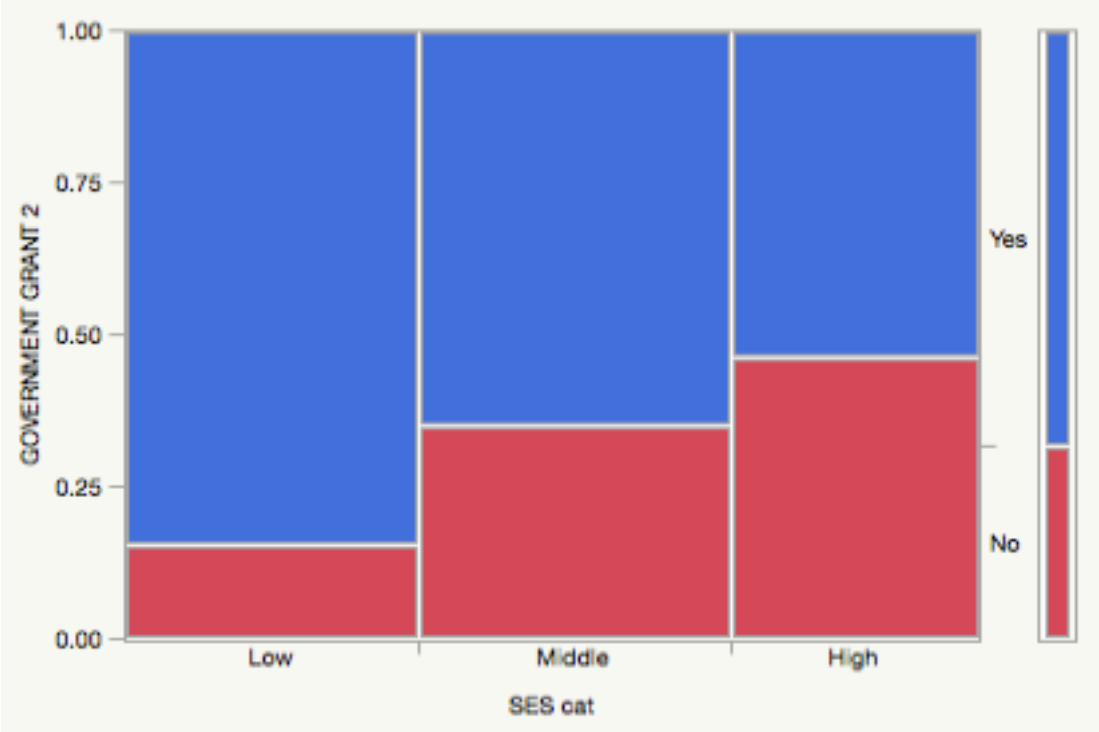

Figure 8.12: Contingency table: SES by government grant recipients. (**Source**: Own).

All SES categories depend on government grants, but the lowest SES groups ('extremely poor' and 'very poor') have the greatest dependency on government grants (see Table 8.17, Table 8.18, Figure 8.12 and Figure 13).

Table 8.18: Contingency table: SES standard category by government grant. (**Source**: Own).

Category	Not receiving a grant	Receiving a grant	Total
Extremely poor	2 (8%)	24 (92%)	26
Very poor	15 (29%)	37 (71%)	52
Poor	16 (37%)	27 (40%)	43
Not so poor	12 (55%)	10 (45%)	22
Better off than most	2 (50%)	2 (50%)	4
Total	47	100	147

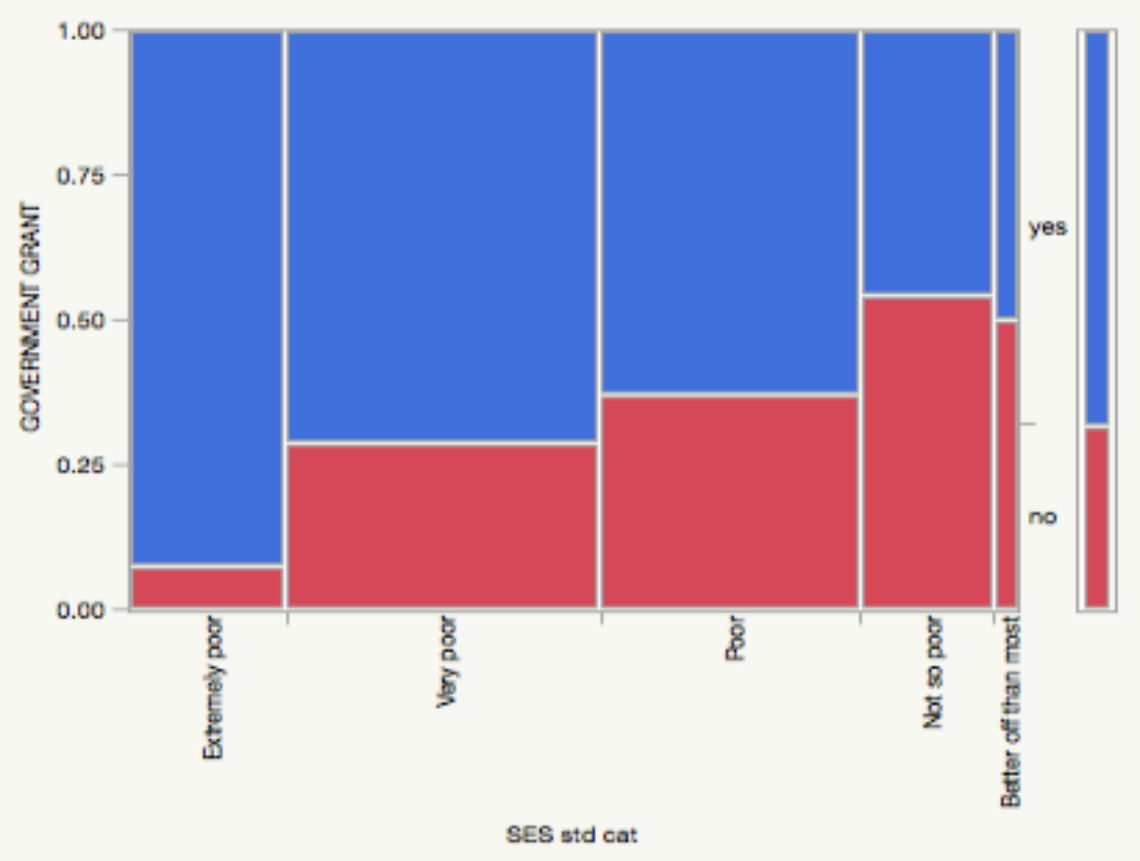

Figure 8.13: Contingency analysis of government grant by SES standard category mosaic plot. (**Source**: Own).

8.2.8. SES and amount spent on school lunch (across all schools)

In terms of the relationship between SES and money spent on school lunch, for the poorest households the school feeding schemes are very important (see Table 8.19 and Table 8.20). This is less important for the middle and high SES households, who are more likely to give their children money for lunch. The higher the SES status, the more is spent on school lunch

(see Figure 8.14 and Figure 8.15). The lower the SES status, the less is spent on lunch, if any money is spent at all. The type of school meals includes maize meal, tinned fish, tinned beans, soup or gravy, rice, chicken, cabbage and soya mince. Those children who have money usually do not eat the school food, but buy crisps (such as NikNaks), ice lollies, sweets, sweet buns, polony and *amagwinya*[20]. Ironically then, higher-status SES children are purchasing far less healthy food than the ones who are too poor to buy their own, and so eat the school-provided lunch.

Table 8.19: School lunch spend by SES category. (**Source**: Own).

Category	Eat at school	< R500 per year	R501 - R1000 per year	R1001 - R2000 per year	R2000+ per year	Total
Low	32 (63%)	4 (8%)	4 (8%)	7 (14%)	4 (8%)	51
Middle	15 (28%)	4 (7%)	5 (9%)	16 (30%)	14 (26%)	54
High	10 (28%)	1 (1%)	5 (12%)	10 (24%)	16 (38%)	42
Total	57	9	14	33	34	147

[20] Dough balls made of flour, salt and yeast and then deep-fried in cooking oil. The detail on the typically purchased school lunches was provided by Precious Makhoba, a resident of the area.

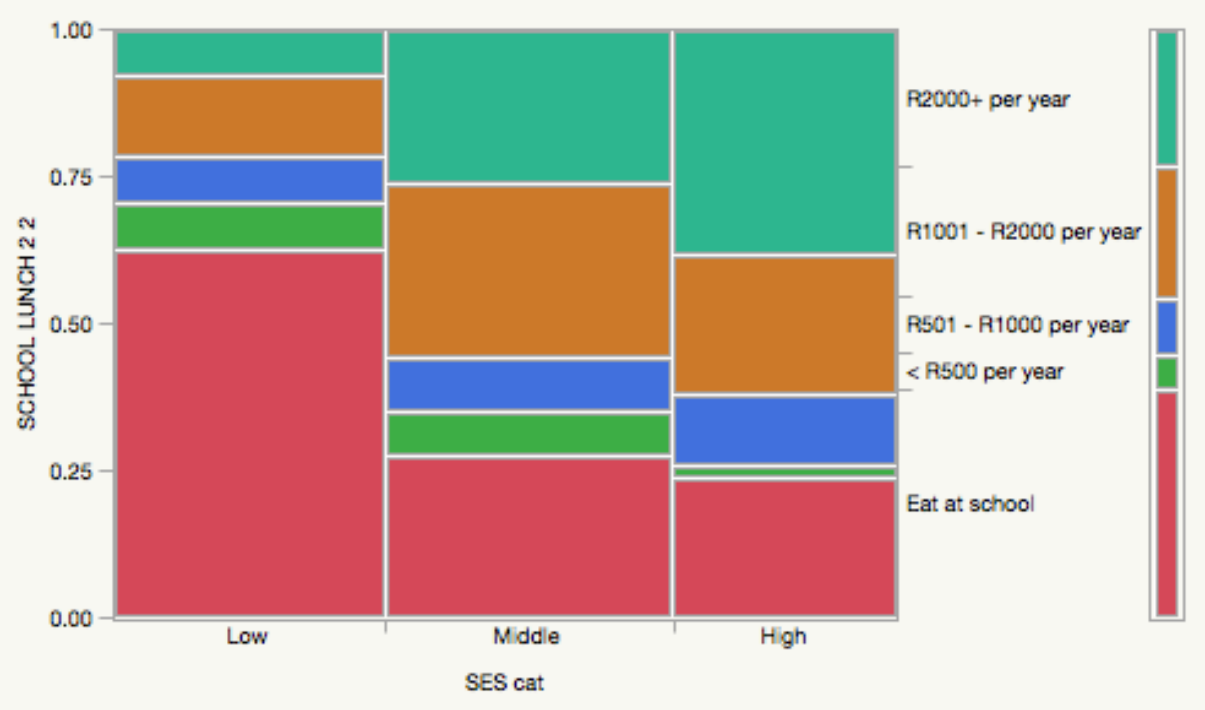

Figure 8.14: Contingency analysis of school lunch spend by SES category mosaic plot. (**Source**: Own).

The ‘extremely poor’ and ‘very poor’ groups eat lunch provided by the school, whereas those learners from households which are ‘poor’, ‘not so poor’ and ‘better off than most’ are far less likely to eat the lunch provided by the school. Thus, what the learners are eating is broadly a function of household SES.

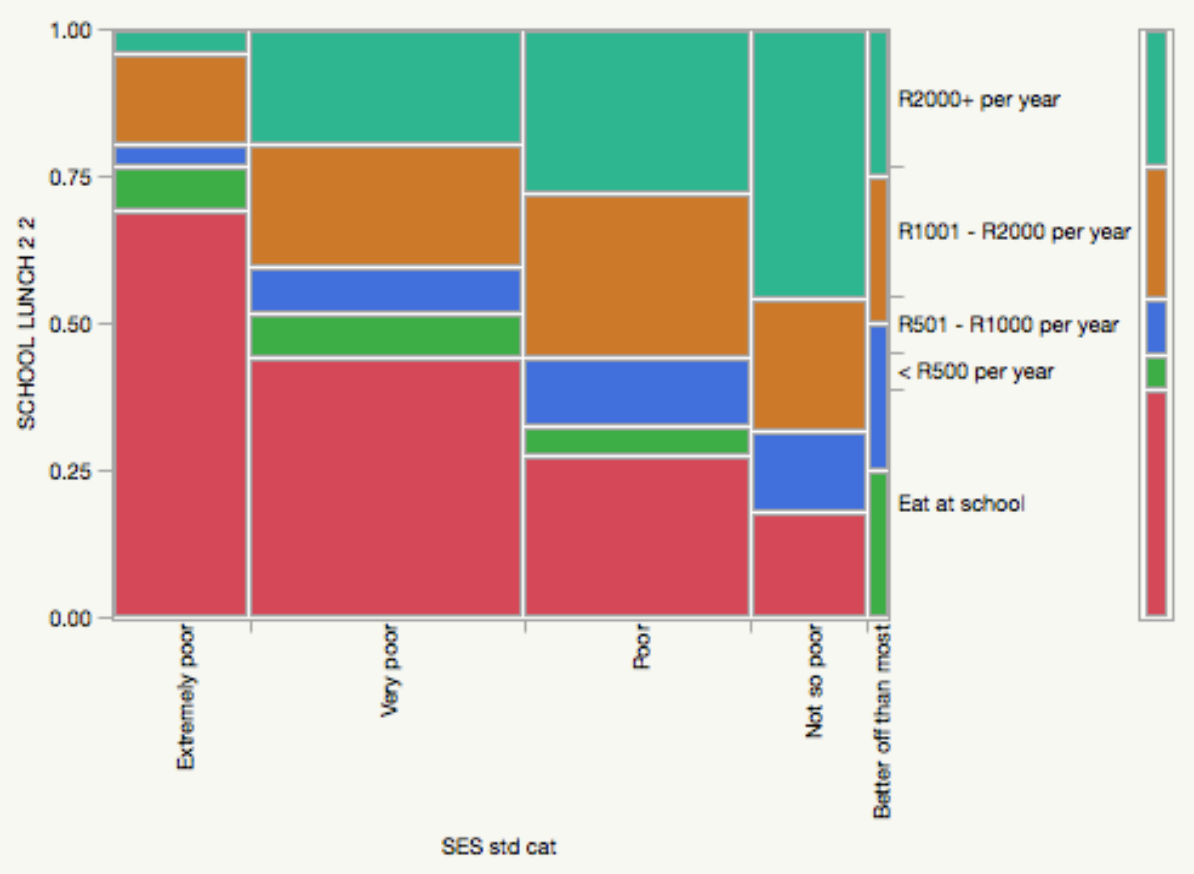

Figure 8.15: Contingency analysis of school lunch by SES SD category mosaic plot. (**Source**: Own).

Table 8.20: Contingency table: SES SD category by school lunch. (**Source**: Own).

Category	Eat at school	< R500 per year	R501 - R1000 per year	R1001 - R2000 per year	R2000+ per year	Total
Extremely poor	18 (69%)	2 (8%)	1 (4%)	4 (15%)	1 (4%)	26
Very poor	23 (44%)	4 (8%)	4 (8%)	11 (21%)	10 (19%)	52
Poor	12 (28%)	2 (7%)	5 (12%)	12 (28%)	12 (28%)	43
Not so poor	4 (18%)	0	3 (14%)	5 (23%)	10 (45%)	22
better off than most	0	1 (25%)	1 (25%)	1 (25%)	1 (25%)	4
Total	57	9	14	33	34	147

8.2.9. Family dynamics between high schools and primary schools

Single parent households could mean a single income, or, if the parent is unemployed, no income. Both would affect school affordability, and influence what can be spent on school

costs and mode of transport used to get to school. High school learners have higher instances of living with married parents (43%) compared to primary school learners (26%). It is likely that high school learners are in a higher SES category than primary school learners. It is worth noting that there is an equal percentage of orphaned learners across primary and high schools (see Table 8.12). A much more in-depth investigation is needed to determine if lower SES learners are less likely to be enrolled in high schools in this area. There does appear to be a direct relationship between employment levels and SES level. That is, learners in the low SES category are more likely to live in a home where no one is employed, while learners in the medium and high SES category are more to most likely to live in a household where someone is employed (see Figure 8.8, Figure 8.16, Figure 8.17, Figure 8.18, Figure 8.19, Table 8.21, Table 8.22 and Table 8.23).

Table 8.21: Contingency analysis: school by relationship status of parents. (**Source**: Own).

School Type	Live with Guardian	Live with Married Parents	Live with a Single Parent	Total
Primary School	7 (7%)	28 (26%)	72 (67%)	107
High School	3 (7%)	17 (43%)	20 (50%)	40
Total	10 (7%)	45 (31%)	92 (63%)	147

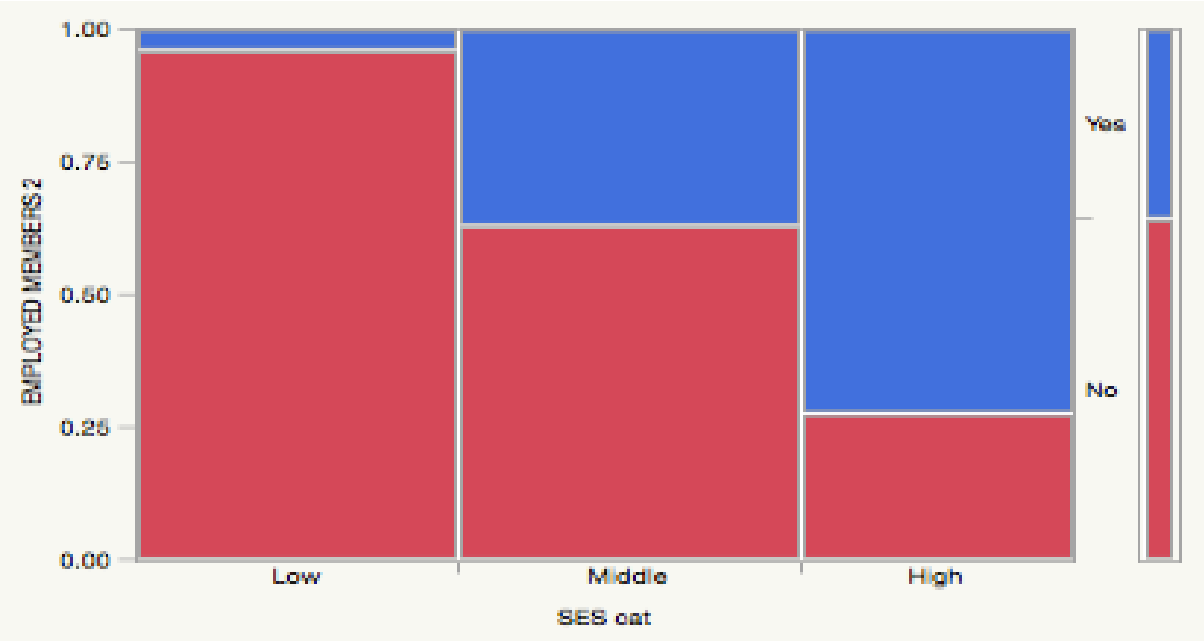

Figure 8.16: Contingency analysis: **s**chool by employment of parents. (**Source**: Own).

Table 8.22: Employment status of parents. (**Source**: Own).

SES Level	Not employed	Employed	Total
Low	49 (96%)	2 (4%)	51
Middle	34 (63%)	20 (37%)	54
High	12 (28%)	31 (72%)	43
Total	95	53	147

Table 8.23: Table: SES SD category by mother: job classification of child minder. (**Source**: Own).

Parents	**Mothers**			**Fathers**		
Category	Unemployed	Employed	Total	Unemployed	Employed	Total
Extremely poor	21 (88%)	3 (12%)	24	26 (100%)	0	26
Very poor	35 (67%)	16 (33%)	51	48 (96%)	2 (4%)	50
Poor	22 (55%)	18 (45%)	40	33 (77%)	10 (23%)	43
Not so poor	3 (15%)	17 (85%)	20	14 (64%)	8 (36%)	22
better off than most	0	4 (100%)	4	1 (50%)	1 (50%)	2
Total	81	58	139	122	21	143

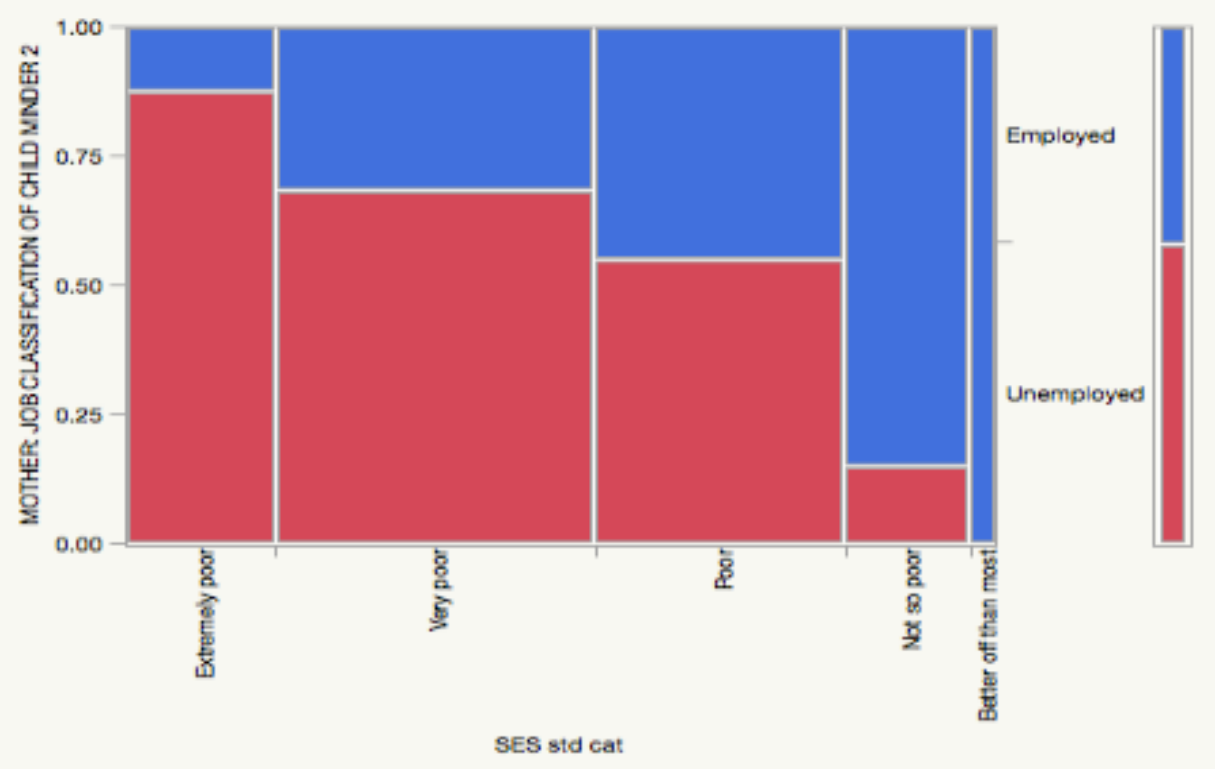

Figure 8.17: Contingency analysis of mother: job classification of child minder by SES standard category mosaic plot. (**Source**: Own).

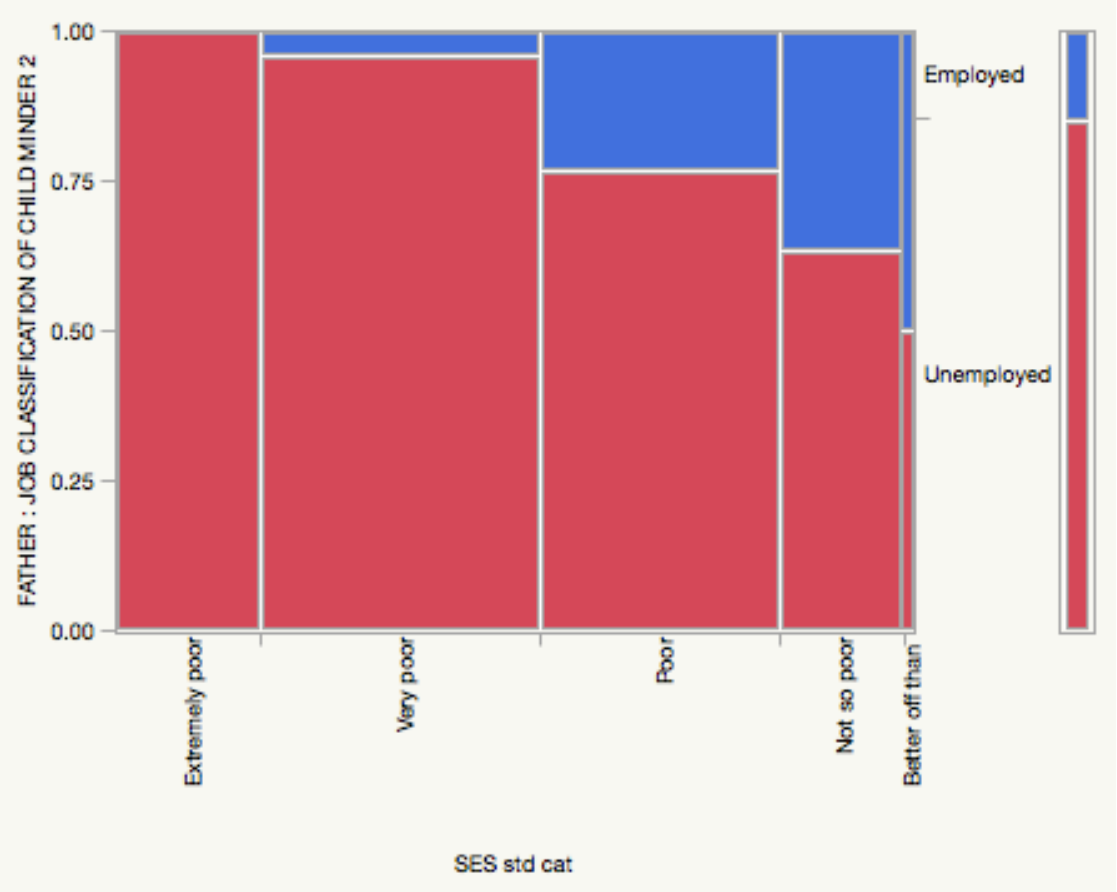

Figure 8.18: Contingency analysis of father: job classification of child minder by SRS standard category mosaic plot. (**Source**: Own).

8.2.10. Comparing schooling costs between primary and high schools

The bulk of the participants spend less than R500/year on school expenses. Importantly, there are some differences, with Esizibeni High split between less than R500/year and less than R1,499/year. Figure 8.9 shows that there is a relationship between SES and spending on school expenses. This reflects that the higher up the SES category the learner is, the more money is spent on school expenses. This is also verified by the Chi-square test at a probability of 9.5068. Umnini and Umgababa Primary parents are the most likely to spend over R1,500/year on school expenses, which is not all that surprising, considering the SES profile of Umnini parents, but is surprising when the SES profile of Umgababa Primary and Umcothoyi High is considered (see Table 8.24). Looking at it in conjunction with the Connecting Letters Report, Umgababa is an outlier here in terms of school spending. This would warrant a deeper investigation.

Table 8.24: Comparing schools by school expenses. (**Source**: Own).

School and Connecting Letters Report	< R500	R500 - R1499	R1500 - R3000	> R3000	Total
Amagcino Primary (B)	20 (71%)	8 (29%)	0	0	28
Umnganiwakhe High (A and B)	12 (52%)	9 (39%)	2 (9%)	0	23
Sdiya Primary (B)	5 (50%)	2 (20%)	3 (30%)	0	10
Umcothoyi High (A and B)	5 (50%)	2 (20%)	2 (20%)	1 (10%)	10
Esizibeni High (A and B)	3 (50%)	3 (50%)	0	0	6
Umnini Primary (A)	8 (22%)	3 (8%)	20 (54%)	6 (16%)	37
Umgababa Primary (B)	5 (19%)	8 (30%)	9 (33%)	5 (18%)	27
Total	58 (41%)	35 (25%)	36 (25%)	12 (8%)	141

Note: Refer to the Connecting Letters Report in this chapter.

In terms of school expenses, although all schools are no-fee schools, there were other contributing school-associated expenses that participants still had to pay and budget for. This includes school uniforms, school trips, sports, lunch money, and donations for school events. Of concern is that even low SES households are spending substantial amounts of money on school-related expenses. Over 61% of 'extremely poor' households, for example, are spending more than R500/year on school expenses (see Figure 8.19, Figure 8.20, Figure 8.21, Table 8.24 and Table 8.25).

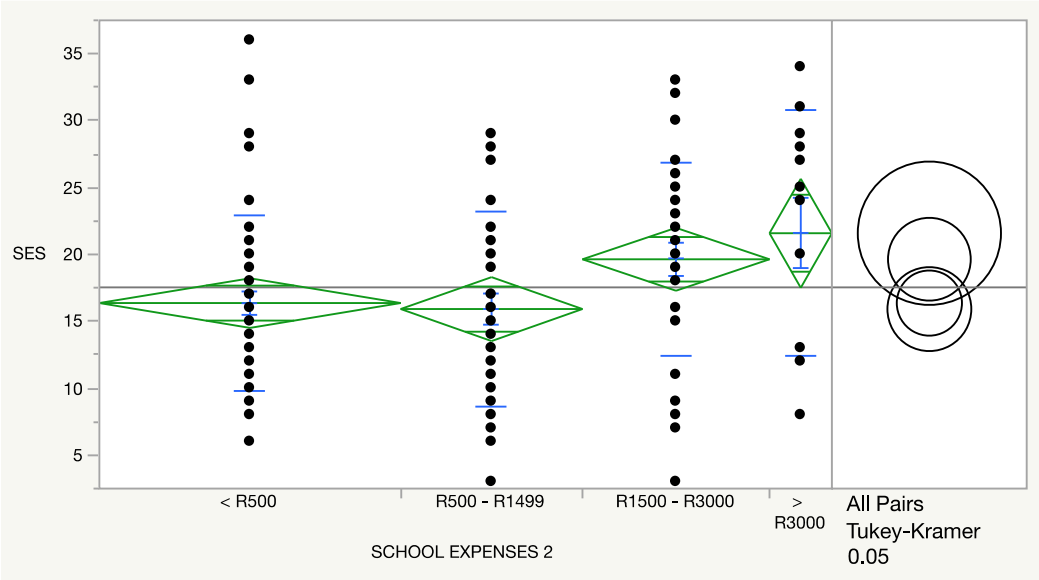

Figure 8.19: One-way analysis of SES scores by school expenses. (**Source**: Own).

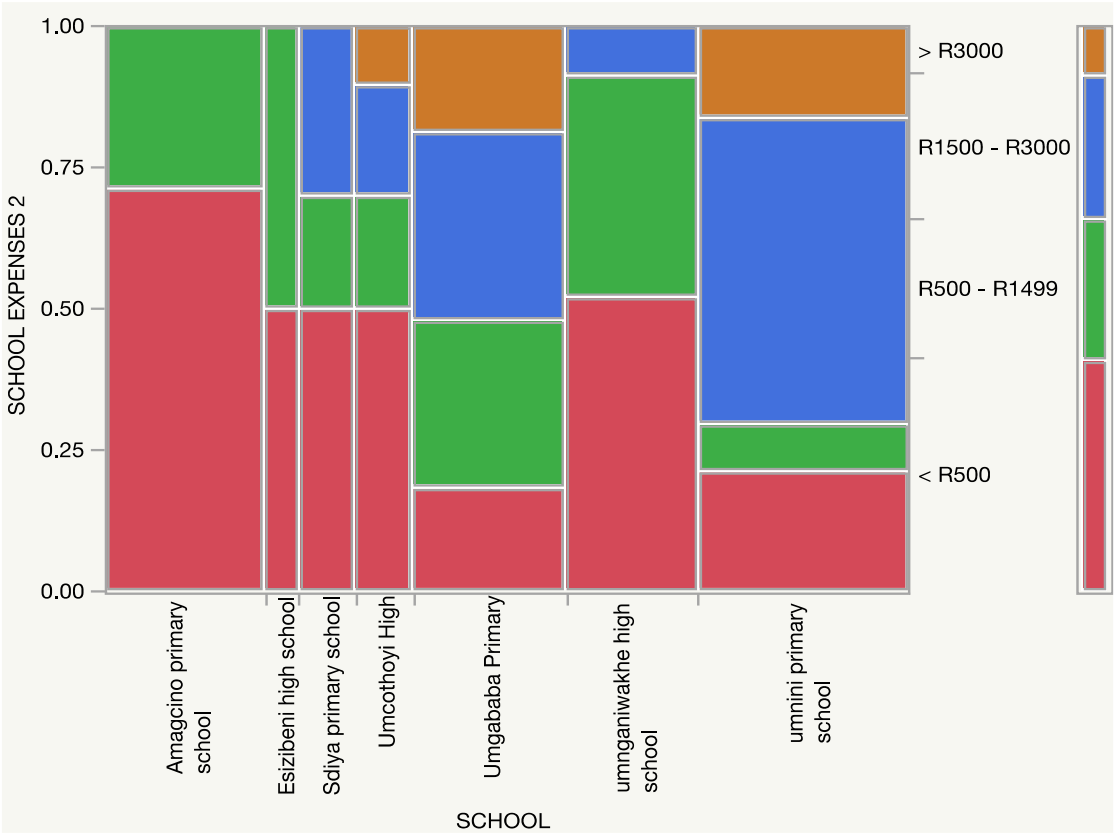

Figure 8.20: School expenses by school type. (**Source**: Own).

Table 8.25: Contingency table: SES standard category by school expenses. (**Source**: Own).

Category	< R500	R500 - R1499	R1500 - R3000	> R3000	Total
Extremely poor	9 (39%)	7 (30%)	5 (22%)	2 (9%)	23
Very poor	26 (52%)	16 (32%)	6 (12%)	2 (4%)	50
Poor	18 (43%)	7 (17%)	15 (36%)	2 (5%)	42
Not so poor	3 (14%)	5 (23%)	9 (41%)	5 (23%)	22
better off than most	2 (50%)	0	1 (25%)	1 (25%)	4
Total	58	35	36	12	141

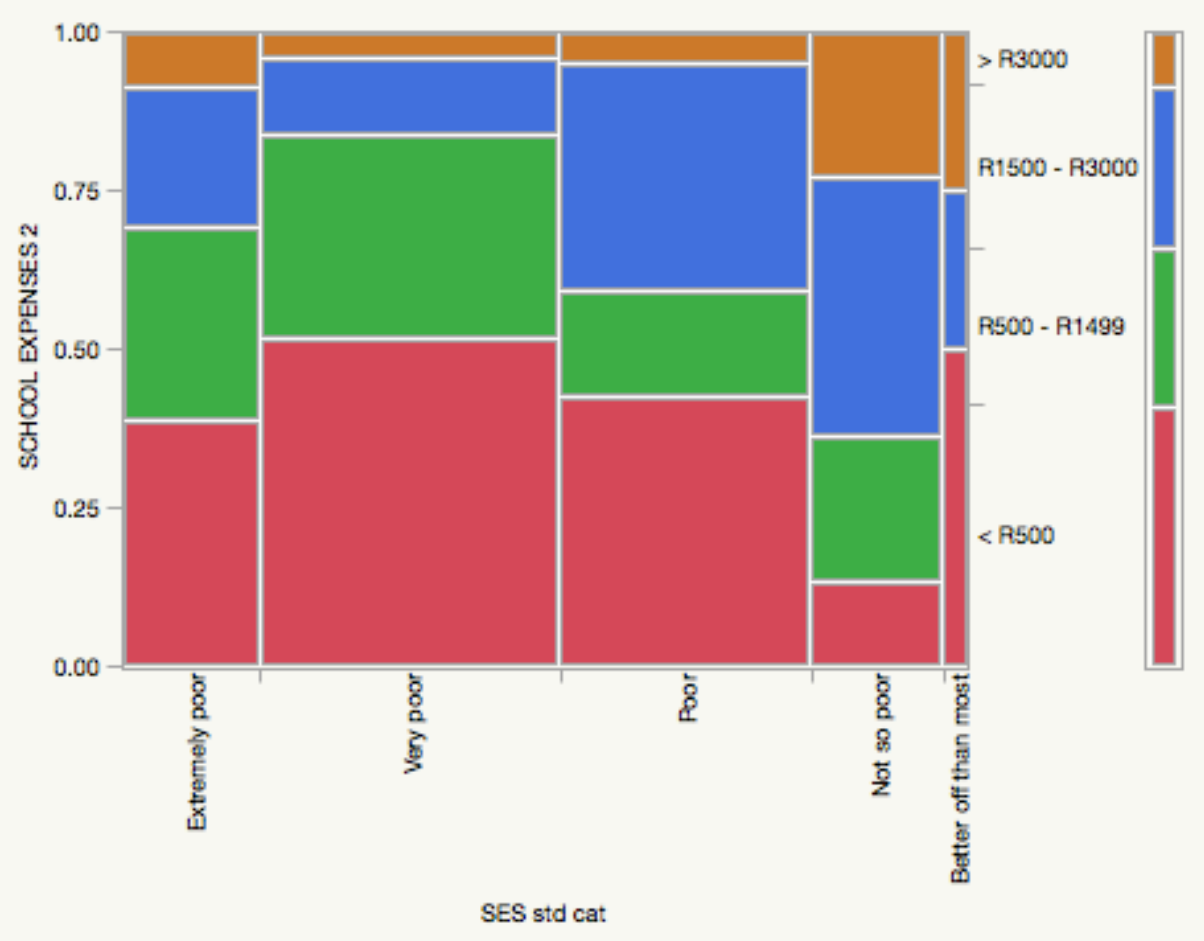

Figure 8.21: Contingency analysis of school expenses by SES SD category mosaic plot. (**Source**: Own).

8.3. Interviews and Focus Groups Discussion

The Induna from the tribal authority was proud of the role they had played in the provision of the government-subsidised bus for school commuting. The primary school teachers were far more involved and aware of how their learners get to school and back. Primary school principals and class teachers have a system in place to ensure that learners arrive at school and get home safely. They have a strong relationship with the *Omalule* (monthly paid minibus taxi drivers) and the minibus taxi drivers. The lack of monitoring of high school learners may be why some mentioned concerns relating to dangerous commuting conditions, drug abuse, crime and overloaded minibus taxis. The high school learners revealed distressing details about their commute. There was a difference by gender. Girls reported that they felt safer and felt less exposed to crime or violence compared to boys. This may be due to them always walking in groups. Most boys felt vulnerable en route to school, as they are robbed or become the target

of drug pushers. Some said they experienced bullying and abuse on the government-subsidised bus, or that the overloaded bus made them feel unsafe. They also mentioned empty alcohol bottles on the bus, and that the bus was often dirty and had broken windows. Walking to school held other dangers such as being mugged or attacked simply because of where they lived (one can be in danger by geographic association, gangsters have enemies, and school commuters may become targets based purely on the fact that they happen to live in an area associated with a gang). The high school girls mentioned that, culturally, they are not allowed to learn how to ride a bicycle, or ride one. Most learners were concerned about poor road conditions, young children being hit by cars, the lack of pedestrian walkways, few safety signs and speeding vehicles. Most mentioned being traumatised by seeing younger children hit by cars on their way to school and felt strongly that authorities need to do something about it.

Parents were confident of their children's safety, even though they had not followed up on documents such as a valid driver's licence, PDPs, the condition of the transport, or whether the vehicle was roadworthy or not. Most parents had limited knowledge of the documentation required, as they did not own vehicles and did not see the need to enquire; as long as their children arrived back home, they did not worry or question further. Most parents are uninformed of the conditions under which their children travel, and are not too involved in the commute process, as they assume everything is fine. Most do not even know the name of the bus driver, or where the bus is from. This complacency is of the utmost concern.

It appears that parents may not have the required knowledge to enforce regulations when it comes to the transport their children use to get to school. A listener on Metro FM (24/02/2020 – *Lunch with Thomas & Pearl*) expressed that when their child is first picked up the vehicle is empty, and there are other pickup points along the way where the overload tends to happen. A different listener mentioned that after all the children have been picked up, drivers have a mutual meeting area where they divide the kids according to schools or areas to avoid doing the same route, making it less time consuming, and financially beneficial, due to fewer trips. This makes it unrealistic for parents to control how their children arrive at school if they change transport in the middle of the trip to school. There is also no way of gaining information on the other drivers, as there is no formal contract in place that stipulates transport conditions. There have been cases where parents have been told that for the trips to be financially viable, the drivers must overload or else the monthly payment would be higher. This is a huge challenge, as in most cases parents cannot afford to pay more for transport, and agree to unsafe conditions,

and even illegal bakkies, to transport their children, due to affordability and desperation. It is difficult for parents to ensure that vehicles transporting their children to school are roadworthy.

In terms of the drivers, they all shared the view that in terms of the school commute, they were there to make money and safety was not a problem, claiming that they had never had an accident. The minibus taxi drivers are under the authority of the minibus taxi association, and, in their view, they are granted permission from the association to collect children in the area. Parents did not seem to know how the minibus taxi association works, and how decisions regarding collecting school children are made. Unlike the minibus taxi drivers, there seems to be no regulation of the bus drivers.

8.4. Chapter 8: commuting photographs discussion

Based on observation of the routes used to access schools in Umnini Tribal Authority, footpaths have been turned into gravel roads based on popular usage by commuters (people, vehicles, animals and minibus taxis). Soil erosion and burst water pipes are an indication of lack of infrastructure and no proper road planning. There are no safe walkways for pedestrians, with only a few guard rails, speed humps and signs that have been recently installed on the main tarred roads. Visibility is a concern, due to blind spots that result in high accident zones. T-junctions are based on existing routes, rather than from a point of safety. General information signs were visible, such as area names, direction, and basic information along the provincial roads, but these are not nearly sufficient, and this was not the case for routes going towards the schools, unless the school happened to be along a provincial road. Some of the footpaths are narrow and surrounded by vegetation, creating good hiding spots for opportunistic criminals.

8.5. Conclusion

The roles, priorities, perceptions and actions of parents, teachers, learners and drivers tend to differ. As a result, some learners face an extremely risky daily commute to school and back, in terms of distance, time, cost, crime, bullying and dangerous road conditions. Of concern is that those who are in the 'extremely poor' groups tend to travel longer distances, and often pay large (relative to their SES status) amounts in school-related expenses. Overall, the most financially vulnerable learners are those who have uneducated or poorly educated, absent fathers and unemployed single mothers. Those who reside with both parents and have better educated fathers (completed secondary school or have a tertiary qualification) are, in the area under

study, the best off financially. That said, access to school lunches, government-subsidised buses and government social grants makes a significant difference in the lives of many children in the schools under study.

CHAPTER 9: CONCLUSION & RECOMMENDATIONS

9.1. Introduction

The intention of the case study was to identify commuting patterns of seven schools in semi-rural KZN (four primary schools and three high schools), to detect whether the socio-economic status of an area plays an influential role in school commuting patterns, school choice and school costs, and how these patterns may impact the physical environment. By establishing the commuting patterns and school choice reasons, it might help contribute towards safer commuting patterns, and systems being introduced, or stricter policies being adopted, by the Department of Education in KwaZulu-Natal, to ensure that safety measures are found for school commuters.

9.2. Overview of methodology

Seven schools in the Umnini Tribal Authority, three high schools and four primary schools participated in the study. The study employed mixed methods, using questionnaires, interviews, fieldwork notes, an audit and photographs, to obtain data. The questionnaire was completed by parents. Interviews took place with a representative of the traditional leader, some teachers, members of the school governing body, and drivers. All gave written informed consent to participate in the study. Permission was also obtained from the KwaZulu-Natal Provincial Department of Education, and all the schools, to obtain all the necessary data for this study. All participation was voluntary. Out of 380 questionnaires issued to parents, only 147 could be used and analysed, as others were incomplete or not returned. Qualitative methods were used to analyse all the interviews.

9.3. The Research Questions

Research Question 1: What is the demographic and socio-economic profile of learners enrolled in the schools found in Umnini Tribal Authority?

The schools under study all had learners living in semi-rural, settlement type of homes. All are Black African, and virtually all are IsiZulu speakers. Most learners live with their single mothers. Unemployment levels are very high. Many households rely on social grants. Most parents have a low level of education, predominantly primary level education, and many fathers are absent. Most of the fathers are uneducated, whereas most mothers have completed high

school. Most households in the study have their basic needs (water, electricity) met, but they seldom have access to the Internet, security gates, flushing toilets or hot water.

The socio-economic dynamics for primary school learners and high school learners in the Umnini Tribal Authority indicate that the area consists of relatively poor households, according to the standard deviation score. High numbers of participants fall under the 'extremely poor', and 'very poor' categories. Participants in the higher spectrum of the SES standard deviation score reside mainly in Umnini, while those on the lower spectrum reside in Imfume, Umgababa, Umnini, Danganya, Mgobhozini,Umlazi, Hlanzeni and Mashiwase – all of which are areas on the outskirts of the Umnini Tribal Authority.

Research Question 2: What are the factors that drive the school commute in the area under study?

Most high school learners walk to school, although some take minibus taxis or a government-subsidised bus. Some learners, especially the boys, dislike the government-subsidised bus due to bullying and abuse, passenger overload, lack of regulation, lack of an appropriate level of cleanliness in terms of health and safety, and an overall feeling that it is unsafe to use. Other problems with the bus include inconvenient pick-up and drop-off points, along with the exorbitant time taken to travel by bus compared to using other transport methods, as there are numerous bus stops along the way. Many primary school learners rely on monthly paid transport, walking, or using the government-subsidised bus to get to school, and very few use minibus taxis or public transport.

School choice contributes towards commuting patterns. From the data analysis, it can be established that due to fewer high schools in general, high school learners tend to commute by foot over longer distances. Based on the SES score, primary school learners are financially better off than those in high school. This may be because more primary school learners than high school learners qualify for the child government grant, which helps these households financially. It may also be that the 'wealthier' parents in the area are sending their children to high schools outside the area.

Top reasons cited by parents of primary learners for school choice were a strong management team, followed by good teachers and affordability. Contrary to this, for high school parents top reasons were proximity and affordability – a further indicator that parents who are in the 'better

off' group are not sending their children to the local schools. Those who enrol in schools outside of the area may be enrolling in schools such as Naidooville Primary School and Kingsway High School, both of which are fee-paying schools and involve long commutes.

Research Question 3: What is the nature (distance, time, cost, pattern, modal choice and SES characteristics of the commuting learners) of the school commute in the area under study?

Distances travelled to school ranged from below 4 km to over 12 km on a single trip. Time travelled ranged from below 15 minutes per single trip to above 46 minutes. Most walk to school, followed by those who use the government-subsidised bus, public minibus taxis and monthly paid transport. Mode is strongly influenced by age, convenience and affordability. When the SES categories were divided into three groups (high, medium and low), it became evident that learners in the low SES group are less likely to take 15 minutes or less to get home, as Table 8.11 in Chapter 8 indicates that the 'extremely poor', 'very poor' and 'poor' categories in the standard deviation grouping live on the outskirts of Umnini Tribal Authority. Most learners in this group travel between 16 – 30 minutes to get home, followed by 31 – 45 minutes, and less than 10% indicated that they travel less than 15 minutes to get home from school. SES seemed less likely to influence commuting modes, but much more likely to influence what is spent on school lunch and school expenses, except for some exceptions where 'extremely poor' parents appear to be paying a great deal of money (relative to their SES grouping) for school expenses. Of real concern is that, regardless of mode of transport used, there are many dangers and challenges which these learners face daily, on their school commute.

Research Question 4: What are the impacts and challenges associated with commuting in the area under study?

The routes used were identified as shortcuts, footpaths, and some on-road routes, depending on the mode of transport. There is evidence of water contamination from unreported burst pipes, unsafe routes and eroded soil along the popular routes. There are many blind spots, and no pedestrian walkways enroute. Newly installed speed humps do slow traffic down, but these are not on all routes. Learners are vulnerable to crime, including being mugged on their way to school, or at the school gates, for their lunch money and designer school bags. Some felt the increase in crime rates was due to drug abuse in the area. Inclement weather conditions make

it difficult to walk to school, as most roads are still gravel and become muddy during heavy rains.

Bullying and overcrowding on the government-subsidised school bus make it unappealing to learners, and as a result, most opt to walk or use minibus taxis or accept lifts. Being left behind by the bus due to overcrowding, and uncertainty in terms of time when going to school (due to numerous stops), cause many learners electing to walk instead. Learners are especially concerned about arriving home late due to the many bus stops along the way.

Inability to afford minibus taxi fare, and unreliability of these minibus taxis, make the minibus taxis an inconsistent and unreliable mode of transport, and only accessible at certain times, due to school learner commuting not being the minibus taxi drivers' main source of income. Minibus taxi drivers also do not like taking learners, as they pay less (R5 versus R22) than adult passengers do.

9.4. Limitations of the Study

Attempts to meet up with the minibus taxi association to discuss learner transport, were futile, as they did not want to participate in the study. However, they did give permission to interview minibus taxi drivers. The study was able to establish that there is a weak level of interaction between school commuters, parents, teachers and the drivers who transport learners. In terms of the government-subsidised school buses, only bus drivers were available for interviews. Interviews were limited to adult learners (over 18) only, and these could only take place during lunch breaks. Access to parents was through individual visits to their homes. Only 147 questionnaires were returned out of the 350 that were distributed between the seven schools.

9.5. Recommendations

The following is recommended:

- Channels of communication between parents, learners, schools, authorities and transport drivers need to be created, in order to help reduce the problems learners encounter in terms of getting to school. This would help address bullying and abuse, passenger overloading, the shortage of buses, insufficient and ineffective bus routes, and crime.

- Additionally, various issues pertaining to safe methods to transport learners, such as valid PDP drivers’ licences, roadworthy vehicles, appropriate vehicles for passenger transport,

safe drop-off and pick-up zones, proper signage and traffic calming measures, all need to be dealt with.

- The area in general needs to be made safer for active commuters. This is a task that falls under the local and provincial governments' mandate. It would include proper bicycle lanes, walkways for pedestrians, traffic calming measures, better signage, more routes, stricter regulation of the government-subsidised buses, proper road infrastructure, better policing of the commute, and active crime prevention.

- Pedestrian walkways, along with designated walking pathways along school routes, for learners, that are safe from criminals, poor weather conditions and soil erosion, and are well marked, easily accessible and in abundance, should be a priority.

- In the interests of driver and pedestrian safety, law enforcement (police, traffic wardens) be made more visible, to reduce crime and driver lawlessness.

- Create a register of all drivers who transport school commuters (temporary and permanent drivers, vehicle number plates, copy of driver's licence), to be kept in the minibus taxi association office, and a copy of which provided to all school principals, updated on a monthly basis.

9.6. Suggestions for additional research

Additional research topics could include looking at the government-subsidised bus transport system, in order to fill in the gaps identified by commuters who mentioned challenges with the bus system, and even on initiatives to make commuting safer, such as ensuring safe bus stops, pedestrian walkways, and police engagement with the community to combat crime. The introduction of cheap, robust bikes with helmets and bike trails to ensure safer commutes for learners, particularly for boys who felt unsafe using the bus, and would cycle to school instead, would be a good idea. Rigorous research into the academic results of the same commuters once they finish school, and their future success, would be an interesting focus, as would be looking into the overall net effects identified in this study once learners are introduced into society after leaving school.

9.7. Conclusion

This study presented an in-depth view of the nature and challenges associated with commuting to school in a poor, semi-rural area of KwaZulu-Natal. Learners face many school commute related problems. There are several interventions that the local and provincial governments could undertake to make their journeys safer, such as more traffic calming measures, reducing the speed limit, installing mirrors in blind spots and having traffic wardens in plain sight at key high accident zones. Safe road crossing is imperative. An additional possibility is safety officers on the government-subsidised buses, to ensure that the bus is kept in a neat, clean and appropriate condition for learners to travel, including monitoring bullying, abuse and other anti-social behaviour on the government-subsidised bus. Helping to set up 'walking buses' for both high school and primary school learners can also assist in making the commute safer for children. Lastly, the minibus taxi association can be engaged to find out how they can work with the schools to better regulate the private school transport industry.

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Appendix A.

Commuting to school in rural Kwa-Zulu Natal: Social, Environmental and Economic Impacts

My name is Nomfundo Nala. I am a student at the University of South Africa under the supervision of Prof T. M. McKay.

Introduction

This study seeks to examine the school commute undertaken by learners between their homes and their schools in the Umnini Tribal Authority.

Invitation to participate

This is an invitation to you to participate in the study.

What is involved in the study?

Your involvement in the study would be that of being a participant in a questionnaire. The process should take a maximum time of 20 minutes.

Risks

There are no risks involved in participation.

Participation is voluntary

The refusal to participate will have no penalty or loss of benefits to which the participant is otherwise entitled, and that the participant may discontinue participation at any time without penalty loss of benefits to which they are otherwise entitled.

Confidentiality

All personal information will be kept confidential and there will be no personal complicating results found. Results will be captured in a manner that will ensure confidentiality.

Contact details of researcher

Should there be any concerns feel free to contact me on: 0762535090 or zenandemanala@gmail.com.

Or the supervisor Ms T. M. McKay on 073 264 9496 or mckaytjm@unisa.ac.za

Consent Document

The environmental and socio-economic impacts of the school commute in the Umnini Tribal Authority

I confirm that:

- I have been informed about the above study.
- I have also received, read and understood the study as explained in the participant information form.
- I understand that my all personal details (identifying data) will be kept strictly confidential.
- I understand that I may, at any stage, withdraw consent and participation in the study.
- I have had sufficient opportunity to ask questions and am prepared to participate in the study
- I understand the research protocol above.

Signature: ..... Date: ….....

Witness (1) Signature: ..... Date: ….....

Witness (2) Signature: ..... Date: ….....

Appendix B

Name of school learner enrolled in	
What language are most of the classes in this school conducted in?	
Grade of the child	

RESIDENTIAL INFORMATION:

1. Residence: where do you primarily live? e.g. Umlazi, Durban _____

2. What province do you live in most of the time? (Please tick)

1	Kwa-Zulu Natal	2	Other (please specify)

SCHOOLING INFORMATION:

3. What school did you attend before enrolling in this one?

1	A primary school	
2	A different high school	
3	Home schooled	

4. Is this school the closest school to your home?

1	Yes	2	No

5. Transport: How much does it cost to get you to school and back per month? (Please tick correct block)

1	No cost		4	Between R1 000 and R1 500 per month	
2	Less than R500.00 per month		5	Greater than R1 500 per month	
3	Between R500 and R1 000.00 per month				

6. What are the annual school fees you pay (Please tick correct block)

1	I pay no school fees (bursary, or no-fee school)		10	Between R 16 000 and R 20 000 per year	
2	Roughly R 500 per year		11	Between R 20 000 and R 25 000 per year	
3	Between R 500 and R 1 000 per year		12	Between R 25 000 and R 30 000 per year	
4	Between R 1 000 and R 2 500 per year		13	Between R 30 000 and R 35 000 per year	
5	Between R 2 500 and R 5 000 per year		14	Between R 35 000 and R 40 000 per year	
6	Between R 5 000 and R 7 000 per year		15	Between R 40 000 and R 50 000 per year	
7	Between R 7 000 and R 9 000 per year		16	Between R 50 000 and R 60 000 per year	
8	Between R 9 000 and R 12 000 per year		17	More than R 60 000 per year.	
9	Between R 12 000 and R 16 000 per year				

7. What other additional educational costs do you cover? (Please tick correct block and give the amounts you spend). Per year, per month, per week - complete which one fits your purpose

ITEM	**COST (R) per year**	**COST (R) per month**	**COST (R) per week**
01 Donations to the school (cash)			
02 Uniforms (such as blazers, shoes and the like)			
03 Stationery (pens, pencils and the like)			
04 School books (Exercise Books)			
05 Textbooks			
06 School sports activities (include uniforms and transport)			
07 Extracurricular activities and excursions (E.g. Art, drama, school outings, choir)			
08 School lunch money/tuckshop money			
09 Extra lessons e.g. maths, English			

8. What is the TOTAL amount paid for educational items OTHER THAN school fees? (Please tick correct block). Per year

1	Less than R500 per year		4	Between R3 000.00 and R 5 000.00 per year	
2	Between R 500 and R1 500 per year		5	Between R5 000.00 and R 8 000.00 per year	
3	Between R1 500.00 and R 3 000.00 per year		6	Greater than R 8 000 per year	

9. Why did you choose THIS school? (Please tick ALL applicable blocks)

Reputation	01 Good Academic Results/facilities (matric pass rate)	
	02 Good Sports e.g. soccer fields, hockey coach	

	03 Good Teachers i.e. qualified, good reputations	
	04 Good Discipline i.e. no bullying, school well managed	
05 It is close to my home		
06 It is close to where I work		
07 It offered me value for money in my opinion		
08 I chose it I wanted my child to learn in the specific language of instruction		
09 Another one of my children was already enrolled here		
10 My child wanted to go to this school, my child chose it.		
11 Previous generations attended the school e.g. Father, Grandmother		
12 This is a school I can afford		
13 The school management team is strong		
14 Good facilities in general e.g. classrooms, toilets, library, computers		
15. Small class sizes (not many kids in one class)		
16. I chose this school for religious reasons		
17. I wanted my child to attend a single sex school e.g. only boys or only girls		
18. Other – please specify		

10. How does the child normally get to school each day?

1	Walks		5	By private car as a passenger	
2	Rides a bike		6	By train	
3	With a private school transport vehicle		7	By public bus	
4	With a school transport vehicle provided by the government		8	By minibus taxi	
5	Hitches a ride		9	By bakkie	
10	Other – please specify				

11. How long (in minutes) does it take the child to get to school?

1	Less than 15 minutes		5	Between 60 and 90 minutes (1 ½ hours)	
2	Between 16 minutes and 30 minutes		6	Between 1 ½ hours and 2 hours	
3	Between 31 minutes and 45 minutes		7	More than 2 hours	
4	Between 46 minutes and 60 minutes				

12. How far (in kms) is it from your home to the school?

1	Less than 2 kms		5	Between 12 kms and 20 kms	
2	Between 2 kms and 4 kms		6	Between 20 kms and 30 kms	
3	Between 4 kms and 8 kms		7	More than 30 kms	
4	Between 8 kms and 12 kms				

13. Please tell us why the child does not walk or ride a bike to school. Tick all that are applicable/all that you agree with/all that are true for you:

1	It is too far to walk/ride a bike.		8	My child used to walk/ride but was robbed/attacked and so now I don't let them walk/ride or don't want them to walk/ride.	
2	It is too dangerous to walk/ride a bike (crime)		9	My child is too young to walk/ride.	
3	My child may get lost on the way.		10	My child refuses to walk/ride to school.	
4	I want to make sure my child gets to school so I drop him/her at school or take them myself to school.		11	My child is not healthy/strong enough to walk/ride to school.	
5	I don't trust my child to walk/ride alone.		12	The school bag is too heavy to carry all the way to school/put on a bike.	
6	The traffic is too bad/dangerous to walk/ride.		13	It isn't good to walk/ride if the weather is bad/cold/rainy.	
7	My child doesn't have a bike/we cannot afford one.			Other – please specify	

FAMILY INFORMATION:

14. What is the main language spoken at home? _____

15. Please tick ALL that you have in your home:

TV and/or DVD player		Washing machine	
Smart phone		Tumble drier	
Home security service		iPad/tablet	
M-Net/DSTV Subscription		Dishwashing machine	
Gates and a wall around my home		Fridge/freezer/deep freeze	
Computer /Laptop		Electric stove	
Vacuum cleaner/floor polisher		Microwave oven	

16. Please tick ALL that are TRUE for you/ TRUE for your household:

I make use of public hospitals/clinics		I seldom go on holiday away from home	
A geyser for hot water		There are no pets in my household	
I have a flushing toilet inside my house		We have a domestic worker/gardener	
There is a motor vehicle in our household		There is no Internet in my household	
In my home, someone collects a government grant		Everyone who wants to work has a job	
I live in a house, cluster or town house		I have electricity in my house	

17. Race: What racial group do you identify yourself as?

1	Asian (e.g. Chinese, Korean)		4	Indian	
2	African		5	White	
3	Coloured		6	Other	

18. What is the relationship status of the parents of THIS child?

1	Divorced		5	Remarried	
2	Living together		6	Single parent	
3	Married		7	Widow/widower	
4	Other (please specify)				

19. What is the highest level of education obtained for the parents of this child?

Mother			**Father**	
1	Primary School		1	Primary School
2	Completed Grade 9		2	Completed Grade 9
3	Completed Grade 12		3	Completed Grade 12
4	Tertiary undergraduate degree/diploma		4	Tertiary undergraduate degree/diploma
5	Honours Degree		5	Honours degree
6	Masters and/or PhD degree		6	Masters and/or PhD degree

20. With whom does this child live with?

1	Both parents		5	Grandparent/s	
2	Mother		6	Uncle/aunt/sister/brother	
3	Father		7	Other (please specify)	

21. The person who contributes the most financially towards this child – how would they classify themselves in terms of job/occupation?

1	Professional	e.g. engineers, healthcare workers, accountants, lawyers, architects, etc.	
2	Managerial or technical	e.g. general managers, educators, nurses, public servants, etc.	
3	Non- manual, skilled	e.g. clerks, cashiers, sales personnel, secretaries, etc.	
5	Manual, skilled	e.g. skilled construction workers, electricians, plumbers, craftsmen, technicians, etc.	
6	Partly skilled	e.g. domestic workers, machine setters/ operators, protective services, waiters	
7	Unskilled	e.g. construction workers, miners, manufacturing workers, labourers	
8	Does not work	e.g. pensioner, student, stay-at-home parent	

Appendix C **FOCUS GROUP QUESTIONS**

Chief and local leaders' interview

How do local leaders support local schools?

Which schools do the children of local leaders attend?

In your opinion, is there sufficient school transport in the area?

What are your views on the travelling to school that occurs in this area?

How would you like to see school transport managed and provided in your area?

What are the challenges associated with travelling to school?

Is the authority (chief) in a position to assist (financially or with vehicles) learners with transport to and from school? (Please specify).

Has the authority requested government, business or other stakeholders (community and NGOs) to assist with transport challenges facing the area?

Is there adequate infrastructure (roads, bridges, etc.) to accommodate proper transportation (buses and minibus taxis) to transport learners to school?

Are there seasonal problems (e.g. rainy season) with transport infrastructure (e.g. roads too muddy, bridges unpassable)?

What do the local leaders think of the conditions of the roads?

What are future plans, if any, in terms of transportation development in the area?

How safe is the community overall?

How safe is the community for children?

Do you think the safety level of the community has an impact on school attendance in the area?

Teachers' interviews/focus groups [for teachers with 5 or more years at a local school]

How many pupils do you have in your class?

Are they all from the surrounding communities?

How many use public transport or minibus taxis to come to school? How many walk to school?

In your opinion, what are the challenges around learners travelling to school from far away?

Does the school help learners who travel long distances to school?

Do you think long travel times impact on the school? On you? On the learners? If yes, how?

How can the school accommodate learners with transport issues?

Does the school have a problem with late-coming?

Do you think long travelling distances affect academic performance? Absenteeism? Dropout?

Outline the extent and nature of the absenteeism problem at your school (if there is one).

Parents' focus group (primary school parents and high school parents will be in different focus groups)

Which schools do your children attend?

Why did you choose those particular schools?

What is the distance (roughly) your children travel daily to and from school?

How does your child get to and from school?

How safe is your community?

Do you think it is safe for your child to travel to where their school is?

What other concerns do you have as a parent when it comes to the distance travelled by your child daily to attend school?

As a parent are you satisfied with your child's academic performance?

Does your child participate in any extra-curriculum activities at school?

How would you like to see school transport managed and provided in your area?

Commuters' over the age of 18 interview/focus group

Which school do you attend?

Why did you choose your school?

What is the distance (roughly) you travel daily to and from school?

How do you get to school and back?

How safe is your community?

Do you think it is safe for learners to travel to school?

Do you participate in any extra-curriculum activities at school?

How would you like to see school transport managed and provided in your area?

Drivers (minibus taxi, private transport and government bus drivers)

What made you decide to transport school kids?

How long have you been transporting school commuters?

Do you have a working relationship with the parents?

How do you communicate with parents regarding transport?

Do parents ask to see any of your documents relating to the vehicle?

How often do you maintain the vehicle you transport commuters with?

How many schools do you transport?

How many loads do you take?

How do they pay you? Monthly, daily or weekly?

Do you hold any meetings with parents? If yes, how often?

Is there a formalised agreement with parents?

Environmental audit sheet

Appendix D

Form 1. General Information and Overall Impression

1.1 General information - rate with number where appropriate, and write comments or sketch in spaces available as a guide to help you - Mark additional comments on map of area, including locations of photos taken to identify issues for each section.					
Auditor/Audit team:					
Date and time:					
Audit location: **Section1 :**					
Land uses: **Section2 :**					
Primary users: **Section 3 :**					
Purpose of audit:					
Weather conditions: ☐ Fine ☐ Rainy ☐ Windy ☐ Overcast ☐ Other					
1.2 Overall impression General comments:					
Overall impression rating 1= negligible problem 2= minor/uncomfortable 3= serious; may be hazardous to commuters 4= needs immediate attention/hazardous					
After completion of each section for the audit- enter the overall ratings below to find out a total walk ability commute rate (higher total= more access					
Summary form		Rating per section	Section 1	Section 2	Section 3
	General information and overall impression				
A	Path type				
B	Obstruction				
C	Construction				
D	Path connectivity				
E	Environmental degradation				
F	Safety on Trail				
G	Signage				
H	Flora				
I	Fauna/Inhabitants				
J	Types of crossings				
Total rating					

Form 2.

A: Path type		Yes	No	N/A
	1.Drainage			
	2. Erosion			
	3. Potential erosion hazard			
	4. Trail Drifting/Braided			
	5. Trail Deviation			
	6. Trail Sagging			
	7. Slippery			
	8. Stoniness			
	9. Rockiness			
	10.Sandy			
Comments:				
B: Obstructions				
	1. Overgrown – pruning			
	2. River/dam			
	3. trees/bushes			
	4. Wash-away			

Adjacent traffic, general traffic issues

Is the motorised traffic speed or volume satisfactory for pedestrian safety and amenity?

☐ Yes ☐ No ☐ N/A

Are there any traffic calming devices? ☐ Yes ☐ No ☐ N/A

☐ Speed humps ☐ Median island ☐ Other:_____

Is separation provided between motorists and pedestrians?

☐ Yes ☐ No ☐ N/A

☐ Gadwalls ☐ Safety rail ☐ Trees ☐ Vegetation ☐ Other:_____

Is the path used by other traffic? ☐ Yes ☐ No ☐ N/A

☐ Bicycles ☐ Scooters ☐ Other recreational devices

☐ Other:_____

Is the footpath/tarred road well designed for this purpose with no resulting hazard and conflict?

☐ Yes ☐ No ☐ N/A

Comments:

Are drivers aware of the presents of pedestrians in the area? ☐ Yes ☐ No ☐ N/A

Do drivers give way to pedestrians? ☐ Yes ☐ No ☐ N/A

Is oncoming traffic clearly visible to pedestrians (no obstructions, curves) at crossings?

☐ Yes ☐ No ☐ N/A

Can young children (primary schools) clearly see approaching vehicles?

☐ Yes ☐ No ☐ N/A

Comments:

C: Construction				
	1. Water barrier			
	2. Drains/furrow (blocked)			
	3. Stream crossing			
	4. Bridges and boardwalks			

Comments:

D: Path Connectivity				
	1. Constructed walkways			
	2. Footpaths			
	3. Tarred road			
	4. Train station			
	5. Bus stop			
	6. Community centres			
	7. Schools			
	8. Recreational parks			

Comments:

E: Environmental Degradation				
	1. Waste and pollution			
	2. Soil erosion			
	3. Water contamination			
	4. Alien vegetation			

	5. Natural obstructions (fallen trees, rocks, landslides, slippery)			
Comments:				
F: Safety on Trail				
	1. Mugging			
	2. Animals			
	3. Rivers/dams to cross without boat			
	4. Personal safety			
	5.Trail visibility			
	6. Traffic calming			
	7. Road crossings			

Personal Safety Daytime

Do you feel safe walking on this route section during the day?

☐ Yes ☐ No ☐ N/A

Is the path visible from adjacent land and activities during the day?

☐ Yes ☐ No ☐ N/A

Are there enough people around to make you feel safe during the day?

☐ Yes ☐ No ☐ N/A

Comments:

G:Signage				
	1. General information			
	2. Route markers			
	3. Road crossing signs			
	4. School/clinic/robot crossing signs			
	5. Danger spots			

Is signage provided to guide and direct pedestrians to key destination in the area (i.e. clinics, community centres, schools)

☐ Yes ☐ No ☐ N/A

Are street names clearly visible? ☐ Yes ☐ No ☐ N/A

Are pedestrian routes/crossings clearly visible to motorists via warning signs and pavement markings?

☐ Yes ☐ No ☐ N/A

Are pedestrian routes/crossings clearly visible to pedestrians by markings and signs?

☐ Yes ☐ No N/A

Are signs and pavement markings in good condition? ☐ Yes ☐ No ☐ N/A

☐ Well-painted ☐ Non-slippery material ☐ Visible day and night ☐ Not damaged

☐ Other:_____

Comments:

H: Flora				
	1. Alien vegetation (weeds)			
	2. Indigenous vegetation (bush, grass, trees)			
	3. Agricultural lands/plantations			
	4. Sensitive habitat			
	5. Off-trail trampling (people making their own paths)			
Comment:				
I:Fauna/Inhabitants				
	1. Alien animals (rats)			
	2. Domestic animals only (dogs, cats, etc.)			
	3. Farm animals (cows, goats, etc.)			
	4. Indigenous animals (buck, etc)			
Comment:				
J: Type of crossings				
	1. School crossing			
	2. No facility			
	3. Traffic marshall			
	4. Traffic lights with pedestrian push button			
	5. Median island/refuge			
	6. Domestic pedestrian signage			

Location of crossings

Are the crossings safe? ☐ Yes ☐ No ☐ N/A

Are crossings at logical location(i.e. connected to other paths, safe place)

☐ Yes ☐ No ☐ N/A

Are there crossing points provided (marked and in good condition)

☐ Yes ☐ No ☐ N/A

Are pedestrians using crossing points correctly?

☐ Yes ☐ No ☐ N/A

If crossing is prohibited or unsafe, are there lines/physical barriers directing pedestrians to the next crossing or marshals during commuting hours?

☐ Yes ☐ No ☐ N/A

Comments:

Ability to cross – at unsigned intersection

Are there traffic control measures to allow for school commuters enough time to cross safely?

☐ Yes ☐ No ☐ N/A

Does the traffic flow allow school commuters to cross the road safely?

☐ Yes ☐ No ☐ N/A

Speed limit at road crossings?

Allows_____ seconds to cross

Took _____seconds waiting time before walking phase started

Comments:

Conditions of crossing

Are there any hazards or maintenance issues? ☐ Yes ☐ No ☐ N/A

☐ Potholes ☐ Cracking on dirt road ☐ Wash-away ☐ Lack of painted lines

☐ Lack of hard shoulder ☐ Lack of speed humps

☐ Other:_____

Design issues? ☐ Yes ☐ No ☐ N/A

Comments :

Is the crossing sufficiently marked, wide enough, at logical location and clearly visible?

☐ Yes ☐ No ☐ N/A

Are bus/minibus taxi waiting areas lined up with crossing areas? ☐ Yes ☐ No ☐ N/A

Comments:

Ethical Clearance

Appendix E

UNISA university of south africa

CAES RESEARCH ETHICS REVIEW COMMITTEE

National Health Research Ethics Council Registration no: REC-170616-051

Date: 17/02/2017

Ref #: **2017/CAES/034**
Name of applicant: **Ms N Nala**
Student #: **51555190**

Dear Ms Nala,

Decision: Ethics Approval

Proposal: Commuting to school in semi-rural Kwa-Zulu Natal: The social, environmental and economic impacts

Supervisor: Mrs T McKay

Qualification: Postgraduate degree

Thank you for the application for research ethics clearance by the CAES Research Ethics Review Committee for the above mentioned research. Approval is granted for the project, *subject to submission of the relevant permission letters.*

Please note that the approval is valid for a one year period only. After one year the researcher is required to submit a progress report, upon which the ethics clearance may be renewed for another year.

Due date for progress report: 28 February 2018

Please note points 4 to 7 below for further action.

The application was reviewed in compliance with the Unisa Policy on Research Ethics by the CAES Research Ethics Review Committee on 16 February 2017.

The proposed research may now commence with the proviso that:

1) The researcher/s will ensure that the research project adheres to the values and

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principles expressed in the UNISA Policy on Research Ethics.

2) *Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study, as well as changes in the methodology, should be communicated in writing to the CAES Research Ethics Review Committee. An amended application could be requested if there are substantial changes from the existing proposal, especially if those changes affect any of the study-related risks for the research participants.*
3) *The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study.*
4) *The permission from the provincial department and the targeted schools are outstanding. This must be obtained and submitted to the Committee before data gathering may commence.*
5) *Would the study benefit from including children in the research? If so, the researcher can do so but must provide the procedures to be followed to obtain access to the children to the Committee for approval first. The researcher can provide a justification for the inclusion of this group if they choose to do so.*
6) *The researcher must ensure that the photographs to be taken do not include any identifiable people.*
7) *The researcher is advised to provide briefing material to the schools to inform participants what the research is about.*

Note:
The reference number [top right corner of this communiqué] should be clearly indicated on all forms of communication [e.g. Webmail, E-mail messages, letters] with the intended research participants, as well as with the CAES RERC.

Kind regards,

Signature
CAES RERC Chair: Prof EL Kempen

Signature
CAES Executive Dean: Prof MJ Linington

NOTE POINTS: 4–7 !

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Actual Cost of Project

Appendix F

Category	Sub-Total	Justification
Tuition fee during project (2016-2019)	R33 500	Annual Registration fee
Travelling costs	R12 000	Attendance of research workshops, field work travelling expenses (flights from PE to Durban, travelling to schools and communities for questionnaire distribution and interviews
Stationery- Personal Computer	R6 000	Purchasing of a personal computer, Microsoft office and anti-virus
Printer and ink	R2 000	Print out many questionnaires and letters for approval and consent forms when conducting the study.
Stationery	R500	Pens, exam pads, staplers, A4 paper, folders, files.
Research assistant	R1 500	Due to the large number of work required for the study and limited time to collect all the data, assistance will be required to assist in conducting questionnaires and ensuring quality data collection and capturing
Refreshments for the focus groups and meetings	R5 000	Due to additional time being added from the usual work time and parent/ teacher meetings, refreshments to help curb the hunger and keep the participants engaging during the focus groups
Linguistics specialist /Translator for questionnaire	R4 000	Due to the main language spoken in the community being IsiZulu, the original questionnaire which is drafted in English would require to be translated and approved by a qualified linguistics specialist/ Translator as to ensure the validity and quality translation and accuracy of questionnaire.
Video Camera/ digital camera/ voice recorder.	R3 000	Data collection and preservation, through voice recordings, video recordings and photos, which will be kept as proof for the study conducted.
Voice Recorder	R800	Data collection and preservation, through voice recordings, video recordings and photos, which will be kept as proof for the study conducted.
Statistician	R3 900	Utilised for the study during data analysis to ensure the right statistical methods are used, to ensure quality results are achieved for accurate analysis of data collected.
Safety box	R2000	Required to ensure safe keeping of all records and data collected as stipulated by the university to ensure limited exposure, and safe keeping of records until such period required by the university.
Estimated Total Cost	**R74200**	