SIGNAGE FOR SOCIAL INCLUSION OF SLUM DWELLERS IN UGANDA: A CASE OF KABALAGALA-KIKUBAMUTWE IN KAMPALA DISTRICT

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A THESIS SUBMITTED TO KYAMBOGO UNIVERSITY GRADUATE SCHOOL IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTERS DEGREE OF ART AND INDUSTRIAL DESIGN OF KYAMBOGO UNIVERSITY

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DECLARATION

I declare that this report entitled, "SIGNAGE FOR SOCIAL INCLUSION OF SLUM DWELLERS IN UGANDA: A CASE OF KABALAGALA KIKUBAMUTWE IN KAMPALA DISTRICT" is my unique work and has never been submitted to any institution of higher learning or College some time recently for any degree.

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APPROVAL

This is to certify that this report entitled, "SIGNAGE FOR SOCIAL INCLUSION OF SLUM DWELLERS IN UGANDA: A CASE OF KABALAGALA KIKUBAMUTWE IN KAMPALA DISTRICT" was done by LUBEGA Andrew (16/U/13534/GMID/PE) under our guidance and is now ready to be submitted for evaluation.

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    2ND SUPERVISOR

    Date: ………………….……

DEDICATION

I am dedicating this report to my beloved mother, Mrs. Nankwanga Victoria and my late father, Mr. Mwasanje Francis for their kindness and financial help during my time in school.

I also dedicate this work to my lovely children: Andrew Kateegera, Christian Mateega, and Victoria Nakanwagi; my dear wife, Catherine Nalwanga and my sister, Dorothy Nabateesa for encouraging me during this course.

I dedicate this study to all the people living in Kampala's urban slums for giving me the drive and courage to fight for their respect, dignity and social status especially during a time of political injustices and the wide spread discrimination and miss education of such communities.

I lastly dedicate this booklet to my Guardian Madam Sarah Nalubowa for her mentoring and constant reflection on the need for furthering my education.

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LIST OF ABBREVIATIONS AND ACCRONYMS

3D   3 Dimensional

BC   Before Christ

DAPCB   Departed Asians Properties Custodian Board

DESA   Department of Economic and Social Affairs

HIV   Human Immune Deficiency Virus

ICT   Information and communication technology

KCCA   Kampala capital city Authority

LCD   Liquid crystal display

LED   Light Emission Diode

MDG   Millennium Development Goals

NGOs   Non-Government Organization

NY   New York

OSIEA   Open society initiative for east Africa

PWDs   Persons with disabilities

SDGs   Sustainable Development Goals

TV   Television

UN   United Nations

UNCHS   United Nations Center for Human Settlement

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ABSTRACT

The messages communicated on the signage displayed in public spaces within the slum of Kikubamutwe do not contribute to establishing an inclusive environment which aids process of improving the ability, Opportunity, and dignity of the people living there (The African Promise, 2015). This study focused on digging the causes of exclusion and challenges brought about by lack of inclusion among slum dwellers of Kikubamutwe, Makindye division in Kampala district. The study was conducted following three objectives which are: (1) To analyze the signage that portray social inclusion of slum dwellers in Kikubamutwe in Makindye Division, (2) To create socially inclusive messages for signage in Kikubamutwe in Makindye Division (3) To produce signage for social inclusion of slum dwellers in Kikubamutwe in Makindye division the third objective being the main. Therefore, the purpose of this study was to create socially inclusive messages to be used on signage in the slum. The efforts involved finding appropriate themes, images/symbols, typography, and colors. A case study research design was used to study slum dwellers in detail. This design allows for a close examination of a specific subject or group (McCombes, 2019). Convenience sampling is a method of choosing people for a study based on what is most convenient for the researcher. Purposive sampling is another method used to select participants who are readily accessible. The data was collected using direct visual observation, photography, and interviews. Also, electronic sources, library books and journals (Taherdoost, 2020). The findings proved that majority of the signage found in Kikubamutwe were done using rudimentary methods and lacked the right message presentation, colors and symbols to cater for all members of that community. By drawing inspirations from electronic sources and from opinions of the slum dwellers the researcher embarked on developing signage that is inclusive with translation in three official languages and with easy to interpret colors and symbols (Bala H. A., 2016). Finally, the researcher recommended that Signs installed in Kikubamutwe should deliver all round and understandable messages catering for all groups of both locals and visitors.

CHAPTER ONE: INTRODUCTION

1.0 Overview

This study focused on creating awareness about the causes of exclusion and challenges brought about by lack of inclusion among slum dwellers on Kabalagala-Kikubamutwe, Makindye division in Kampala district. Poverty means not having enough resources, rights, and access to basic goods and services. It also means being unable to take part in normal activities and relationships that most people in a society can enjoy. This introductory chapter lays more emphasis on the background to the study.

A slum is a crowded neighborhood in a city where people live in poor-quality homes and in unclean conditions. Slums can vary in size and other qualities, but most of them do not have reliable toilets, availability of clean water, consistent electricity, law enforcement, and other important services (UN-Habitat, 2007).

Pierre Elliott Trudeau (1976) shows that the slums we know today began in the 20th century after the great economic depression. In the 1940s and 60s, there was more trading happening. Then, in 1990, when the iron curtain in Europe came down, the world entered a new era of globalization. The development of better communication technologies helped more people in developing countries connect with others around the world. This made it easier for them to find opportunities in other countries. Less expensive workers with good skills from poorer countries came to Europe. But because of taxes, social support systems, and rules for workers, inequality formed. This created a new group of poor people who lived in slums.

The recent increase in cities growing in developing countries is causing a big problem for their governments. The slums are mainly in cities where people who live there do not make enough money to afford proper housing that is regulated by the government. They have taken action to solve their own problems by making their own houses or renting places to live from each other without any formal agreements (UN.Habitat, 2003).

According to U.S. News (2019), the biggest slum city in the world is Orangi, located in Karachi, Pakistan. It has a population of approximately 1.5 million to 2.4 million. In simple terms, the area has a group of 133 small communities on the edges of Karachi, a city on Pakistan's west coast. It covers an area of about 8,000 acres. The people who live here have houses made of hard material, and there are a lot of them living together in each room.

One of the main signs of people being left out in African cities is the increasing number of slums and informal neighborhoods. People who live in these settlements have really bad living and environmental conditions. They are not allowed to be a part of the economic, social, political, and cultural activities in the city (Ben C. Arimah, 2017).

The increase of slums will have big impacts on people and the earth, which are connected. Living in slums has many problems. People in slums face dangers from natural disasters and other things made by people. They also don't have proper houses. These things directly affect the people who live there. This is because they do not have enough energy to recover from big disasters (Mahabir, 2016).

In this chapter we looked at the statement of the problem, purpose of the study, objectives of the study, studio guiding questions, significance of the study, and scope of the study, limitations and definition of operational terms.

1.1 Background to the study
The study's background material relates to the signage in the urban area where the majority of people regularly live and work. In this section of the report, we discuss indications in urban slums. The goal of social inclusion is to ensure that everyone has equal opportunities, regardless of background. The next section of the paper includes a brief history of the Kikubamutwe slum and discusses the rise of urban slums.

1.1.1 Signage in city slums

In this study, signage means all the signs or groups of pictures that give information to the public, like ads, billboards, or signposts (Merriam Webster, 2022). The first known use of signage was during the Paleolithic age, around 18,000 BC, (Elite signs and graphics, 2020) where signs were not only used to communicate, but were also ritualistic and spiritual in nature symbolism. The word 'sign' comes from an old Latin word 'signum' and it means a mark or a token. The Romans were the first people to realize that signs are important and useful. They made the first system of signs on roads to show how faraway places were and which way to go. After a time of little progress, there was a big rise in business, exchanging goods, and money, and this led to more creative types of signs used in trade. There was a contest to see who could make the fanciest signs. The use of shiny gold, pretty iron, colorful paint, and fancy carvings became more and more liked by people (Merriam Webster, 2022). During the time when machines were being used more in factories and industries, the creation of cars was a big deal. This meant that signs on the roads became even more necessary to keep people safe.

Lawniczak (2020) in his book about way finding in communities suggests that even with the rise of location finding Utilities such as Google Maps, Yelp and GPS, the role of the historic downtown way finding signage systems is still very apparent. Even with the advances in technology and the rise of home offices or co-working spaces that aren't location-dependent, people still maintain their desire to work in and visit neighborhoods with character that have a unique sense of place. Therefore, the communities still need to be distinguished, not only with historic buildings and exciting businesses, but with way finding signage to help people find landmarks. Signs are special tools that define people form the downtown areas and help inform people that there is more to an area than the single destination they may have come to.

Slum expansion and development provide a number of obstacles, although target 7.d of the Millennium Development Goals (MDGs) aims to considerably improve the lives of at least 100 million slum residents by the year 2020. By promoting slum prevention initiatives and proactive planning, significant efforts should be made to provide for

suitable alternatives to new slum formation in addition to improving the lives of slum dwellers (Arimah, 2001).

Slum dwellers are less likely to participate in initiatives that aim to avoid problems like violence, crime, alcoholism, poor cleanliness, and other social ills, which increases their risk of experiencing these problems. However, an attempt to achieve better governance, authorities can partner with NGOs and CBOs to find creative ways for communicating with slum dweller for better social-economic practices. Warnings and preventive messages can be passed on using signage within the slums (UN-Habitat, 2003).

Local departments programs, products and services in slums must promote the highest level of inclusion and engagement of people with disabilities. Signage makers must focus on establishment of accessible communication practices across all communities. Designers should practice effective communication stating whatever is written or spoken clearly for people with disabilities to understand. To ensure effective Communication designers must before undertaking any design work consult and engage different members of the community, they should identify and mention all available community resources and emergency points, Use of respectful language and do not refer to peoples disabilities, , they must use multi model communication channels in distributing and delivering intended messages, and lastly they must share information on current and future efforts by constantly updating their audience (Naccho, 2016).

1.1.2 Social Inclusion in slums
The World Bank (2013) describes social inclusion as making sure that people who are disadvantaged because of who they are have the chance to participate in society, and that they are treated with respect and fairness. According to The African Promise (2015), Goals 8, 10, 11, and 16 of the Open Working Group's 2030 Sustainable Development Goals all focus on inclusion. Goal 8 is about creating jobs and growing the economy in a fair and sustainable way. Goal 10 is about including everyone in society, regardless of their age, gender, disability, race, ethnicity, origin, religion, or economic status. Goal 11 is about

making cities and communities welcoming, safe, strong, and sustainable. Goal 16 is about creating peaceful and fair societies with institutions that include everyone. This need to encourage everyone to be a part of society requires us to better understand what it means.

So, in this study, social inclusion means that everyone, whether they are children or adults, disabled or abled, men or women, from different ethnic groups or religions, have the chance to be part of society. They should be treated with value, respect, and be able to contribute to society wherever they live. This means that it focuses on an active way of helping people to live better lives, and it requires more than just getting rid of obstacles or dangers. To make inclusion happen, we need to spend money and take steps (Donelly & Coakley, 2002).

The social model with a human rights perspective says that everyone should be treated as equal citizens. Society needs to make sure that everyone has a fair chance to participate (Dakroury & Hoffmann, 2010).

When people living in slums are not included, it means that they have to keep living in homes that are not suitable for extreme weather conditions. They also don't have enough space to live, and they can't get enough clean water at a reasonable cost. Additionally, they don't have proper toilets and are at risk of being forced to leave their homes without warning (Cities Alliance, 1999).

Sims and Nagaddya (2011) explain that despite the global achievement amongst slum dwellers, the situation at Kikubamutwe is yet to transit from the discrimination against similar social services that can uplift their standards of living. Exclusion causes many problems for people or areas. These problems include not having a job, not having good skills, not earning much money, living in bad housing, experiencing high levels of crime, being unhealthy and having families fall apart (UN, 2013).

Also, absence of inclusive signage negates the tenets of promoting social services that address the core needs of slum dwellers whose numbers keep on rising by the day. The

messages on the signage that advocate for social services are discriminatory against the low-income earners who are mainly looked upon as the wretched of the society. Strong tactics are necessary to effectively advocate for those who live in slums and to comprehend the challenging circumstances they encounter. Children, adults, and senior citizens with critical needs reside in these deplorable slums. In plainer terms, helping people in slums acquire new skills and gain more independence, as well as interacting with organizations like local governments, can significantly enhance their quality of life. These strategies appear to be the most successful ones for enhancing their resources and health (Sheuya, 2008).

1.1.3 Prevalence of slums in Kampala city

In 2010, there were 31. 8 million people in Kampala. By 2015, it was estimated that this number will increase to 37. 9 More than 60% of the people in Kampala live in slums. In Kampala, 38.9% of the people live in extreme poverty, and 5. 7% live in very severe poverty. Poor people do not have a strong support system from their community or community resources. They also do not have access to clean water, proper sanitation facilities, good roads, and secure housing. They face high levels of unemployment. Slums in Kampala are the clearest sign of poverty in the city (Wamani, 2010).

The city council faced major problems, both in making plans and in providing services, because of different reasons. After the declaration of independence in 1962, people were allowed to move to towns because the strict rules from colonial times were relaxed (NDP, 2010,2015). The military government in Uganda made Asians and Europeans leave the country and gave their businesses to Ugandans. This made many people from rural areas come to Kampala to try to get economic benefits. Better security, good conditions, and policies that allowed more freedom, helped the industrial sectors grow and develop economically (Dawood, 2016). The huge increase in population caused other problems, such as too much garbage and bad sanitation that the KCCA was unable to handle. There was also more traffic because there were more vehicles (KCCA, 2017).

According to UN-HABITAT (2007), slums in Kampala City have been increasing slowly and steadily for a long time. There are various reasons for this, but the most important one is that previous plans for Kampala did not take into account the needs of African communities and areas. In 1972, a planning board called the Town and Country Planning Board created a plan for the development of Kampala. This plan included different policies about things like housing, the city center, water and sewage, transportation, and land for future plans. To some degree, this plan was put into action when it came to the development of Kampala City until 1994. At that time, a new plan called Poor Infrastructure Situation Analysis of Informal Settlements in Kampala Structure Plan was made. Despite having a plan, it was put aside for a very long time. So, without any plans and rules, cities started growing in ways that caused many informal communities to form in both poor and rich neighborhoods.

According to The Independent (2019), many people moved from rural areas to Kampala, which made the city grow quickly. As a result, there was a need for affordable housing, but the city was not prepared for it. One example is the rise of slums in crowded areas near the outskirts of Kampala, like Kamwokya, Makerere Kivulu, Katwe, and Kisenyi. These areas were not originally part of Kampala. Any project that aims to improve slums should be careful not to develop one area while creating another slum somewhere else.

The way people own and use land in Kampala is very confusing and there are many different systems. These systems have greatly affected how the city has expanded and how slums have formed. After the 1995 Constitution got rid of statutory leases, Kampala City Council lost its lease for 199 years. The land then went back to the original owners and led to the creation of informal settlements in the city. Most slums are found in areas where people live without proper planning. These areas can be on private land or public land that is occupied by tenants with customary rights, after the legal leases have been ended. This has greatly affected the implementation of planned developments, and led to the sprouting of poor housing and sanitation in Kampala's informal settlements. Notable amongst them are the seven (7) informal settlements of Bukesa, Kagugube, Kamwokya II,

Mengo, Kisenyi I, Kisenyi II, Kisenyi III and Kikubamutwe amongst others. (Makabayi & Musinguzi, 2015).

1.1.4 Brief history of Kikubamutwe slum

Talemwa & Nakazibwe (2008) in their book entitled why is your village called Kikubamutwe state that Kikubamutwe is one of the slums under the geo-jurisdiction of Kampala Capital City Authority (KCCA) within Kabalagala region of Makindye division in Kampala district. Kikubamutwe slum was founded in the 1950 when people searching for better livelihood came to Kampala city and sought cheaper and affordable residences out of the city suburbs. During the insecure decade of the 1980, the Namuwongo area was a no-go area to pedestrians between 6:00 pm in the evenings and 7:00am in the morning. Until recently, anyone walking along 8th Street after 6:00 pm risked being mugged; the locals referred to the place where people were attacked by criminals as *ababbi bakuba ku mutwe*, literary meaning that "thieves hit on the head." Even after the improvement on the security situation, the area has retained its name Kikubamutwe at its current place adjacent to Shell Kabalagala and Capital Pub. Kikubamutwe is located in Kabalagala, a popular area in Kampala city known for its many restaurants, bars, and nightclubs. It is a big place for fun and has lots of places that are always open. The whole population is 30,000 people. On average, there are 6 individuals living in each home. The land size occupied by the population is 52. 3 There are around 5000 households and 2,050 makeshift homes.

1.2 Statement of the problem

The messages communicated on the signage displayed in public spaces within the slums of Kabalagala Kikubamutwe do not bare qualities that accommodate or cater for the needs of all groups living there. (World Bank, 2013). This kind of communication has caused poverty, ignorance, disunity, network poverty, no access o role models, unemployment, persistent violence, alcoholism, poor hygiene and crime. This situation has highly affected the area harboring mostly vulnerable groups like the disabled, old age, children, illiterate, different tribes, women, sex workers and above all has people of

different socio-economic classes which the communication on the different signage does not emphasize. The rationale behind these messages must cater for aspects of religion, business, education, employment opportunities, and matters of policy, culture and environment while accommodating all groups of people in this area. The communication which appeals to all will trigger equal and active participation to improve the slum dwellers livelihoods. In this study the aim is to portray community messages in a meaningful manner done with support of simple inclusive themes, images and symbols, typography, color and multiple languages. Signage will be placed within the vicinity and access of slum dwellers of Kikubamutwe to elicit positive responses from the messages displayed. The signage here will be used as a vehicle or medium on which these socially inclusive messages will be done creatively, placed in accessible areas, and executed to cater for the people's different lifestyles, trends, tribes. Status and education levels (Croner, 2021).

1.3 Purpose of the study

To create messages on signage with concepts and ingredients of theme, images, symbols, typography, and color configured to embrace social inclusion attributes of slum dwellers in Uganda.

1.4 Objectives of the study

The study was guided by the following specific objectives;

1.4.1 To create messages with themes, images, symbols, typography & colors for signage embracing social inclusion in Kabalagala-Kikubamutwe in Makindye Division.

1.4.2 To create messages with themes, images, symbols, typography & colors for signage embracing social inclusion in Kabalagala-Kikubamutwe in Makindye Division.

1.4.3 To produce signage with messages & concepts for social inclusion of slum dwellers in Kabalagala-Kikubamutwe in Makindye division.

1.5 Studio guiding questions

1.5.1 What Signage portrays social inclusion within the slums of Kabalagala-Kikubamutwe in Makindye division?

1.5.2 What themes, images, symbols, typography & colors can be used to promote social inclusion of slum dwellers in Kabalagala-Kikubamutwe in Makindye Division channeled through signage?

1.5.3 How can messages and concepts of inclusion be used to produce signage which is appropriate for promoting social inclusion of slum dwellers in Kabalagala-Kikubamuwe in Makindye Division?

1.6 Significance of the study

The findings of this research are expected to be important to the beneficiaries in the following ways:

The academicians and scholars will be provided literature for future reference. It will ignite debate and encourage more research on the best ways of communicating with slum dwellers about the challenges that arise from social exclusion.

The stake holders including slum communities, civil society, local government, ministry of gender and activists will be able to actively contribute towards the improvement of their major community challenges. The study will enhance citizen involvement, attitude and perception change amongst slum dwellers by stimulating dialogue and prioritizing of social inclusion.

Policy makers can combine programs to make life better in the slums. The city government plans to begin a campaign to support and promote social inclusion in informal settlements. This is in line with goals set by the Sustainable Development Goals (SDGs), Uganda's vision for 2040, and the National Planning Authority's mandate for 2020 (UN-Habitat, 2016). The communities and groups will engage local leaders, development

planners, the private sector, religious and cultural institutions, and development agencies about Inclusion (Cities Alliance, 2012).

1.7 Scope of the study
The parameters and demarcations in this study were according to the geographical, content, and time scope.

1.7.1 Geographical scope
The study took place in Kabalagala. It is surrounded by Kibuli to the northwest, Namuwongo to the northeast, Muyenga to the east and southeast, Kansanga to the south, Lukuli to the southwest, and Nsambya to the west. Kabalagala is located about 6 kilometres (3.7 mi) southeast of Kampala's central business district. The coordinates of the neighborhood are: 0° 17' 53.00"N, 32° 36' 2.00"E (Latitude:0.298056; Longitude:32.600556) (Home People, 2022).

1.7.2 Content Scope
The content focused on the distinctive features of signage that is found within the vicinity of Kabakagala Kikubamuwe. The wide-range of communication messages presented on the signage was examined in the process obtaining relevant information for the clear identification of their varied forms of representation in the community. Furthermore, the forms of messages communicated on different signage were analyzed as critical information required for addressing the underlying issues of social inclusion in slums. The information on the processes of systematic production of the messages propagating social inclusion was sought for in order to process new signage in the community. Knowledge on the most appropriate and effective communication messages was paramount in collecting required information for executing the various forms of inclusive messages that advocate for the rights of the slum dwellers in Kabalagala-Kikubamutwe.

1.7.3 Time scope

This study focused on a specific 10-year period, from 2012 to 2022. In this time, the researcher went on trips, collected data, made artwork, and wrote a report.

1.8 Limitations of the study

Critical observation being one of the main information tools, consumed a lot of time for the researcher yet there was also the third objective which required most of the researcher's time which was production of socially inclusive signage.

Some of the respondents (slum dwellers) refused to participate meaning they did not give the information asked by the researcher. It was probable that they wanted to protect their families because they thought such a study had political inclination.

The researcher faced financial problems in terms of transport, accommodation and other field expenses while carrying out the study and the researcher had to extend his period of study hence prompting completion of the study in three years instead of the initially planned two years.

Because of photography laws and government policies on privacy, taking photos was not allowed in many locations with the selected slum which did not allow the researcher to freely examine the signage within the slums.

Regardless of the limitations, the researcher was able to complete the study through tenacity and utilizing his past experience dealing with communities like Kabalagala Kikubamutwe to get the information needed.

1.9 Definition of terms

Social Inclusion: Social Inclusion means making sure everyone has the same chances in life, no matter where they come from. This helps them to reach their full potential. In simpler terms, social inclusion is a way to make sure everyone can fully take part in all parts of life, including being involved in their community, economy, politics, and making decisions.

Communication: Communication is the act of sharing information through talking, writing, or using other methods. "Communication is when we share or exchange information through speaking, writing, or other ways."

Diversity: Diversity means having different elements or different types of people, like people from different races or cultures, in a group or organization. It is important to have diversity in schools and there are programs that aim to promote it.

Graphic design: Graphic design is a way to design and communicate ideas and experiences using pictures and words.

Information refers to facts provided or learned about something or someone.

What is street addressing? Street addressing is a way to figure out where a particular place is on the ground. It involves using maps and signs that have numbers or names to identify streets and buildings. This idea can also be used for cities and their services. Apart from buildings, other things like public standpipes, streetlamps, and taxi stands also have addresses.

Signage: Signage is when signs and symbols are used to share a message with a certain group of people. This is often done for marketing or to support a cause.

Slum: The word has been used to describe really bad houses and dirty living conditions. It's a place where there is a lot of crime and drug abuse. It also causes many epidemics in cities.

Social cohesion: This means the things that make people feel connected and stay together in a community. In a united society, everyone feels like they belong and can take part, feel included, and be noticed and valued. Not all societies that get along well have people who are the same in terms of their population. Instead, they value and appreciate differences among people, which allow them to take advantage of the various abilities, thoughts, opinions, and skills present in their society. So, they are less likely to get stuck in harmful patterns of tension and fighting when their different interests clash.

Social Exclusion: Social exclusion means that people are not being included in society because of barriers and processes that stop them from being included. Social exclusion happens when people or groups are left out and can't fully take part in all parts of society because of things like their age, gender, race, ethnicity, culture, language, or problems like money or social status. Social exclusion can mean not being able to speak up, not being recognized, or not being able to take part in things. It can also mean being left out of having good jobs, things that you own, land, chances to succeed, access to public services, and/or being involved in politics.

Social Participation: Social participation means participating in the activities of a community or society. This means being able to have a say in the decisions being made and being involved in the process of making those decisions. When people take part in social activities together, they build trust with each other. This trust helps them work together to take care of their community and society.

CHAPTER TWO: LITERATURE REVIEW

2.0 Overview

Chapter two presents the views of scholars on signage for social inclusion in society where the less privileged in society live and make a living in the slum. The views reflect the theoretical framework and the opinions of different authors on the three objectives of the study.

2.1 Theoretical Framework

There are several theoretical models or theories which explain communication. In this study the researcher used the syntactic theory of visual communication created by Paul Martin Lester 2006.

Figure 1: Shows the theoretical framework
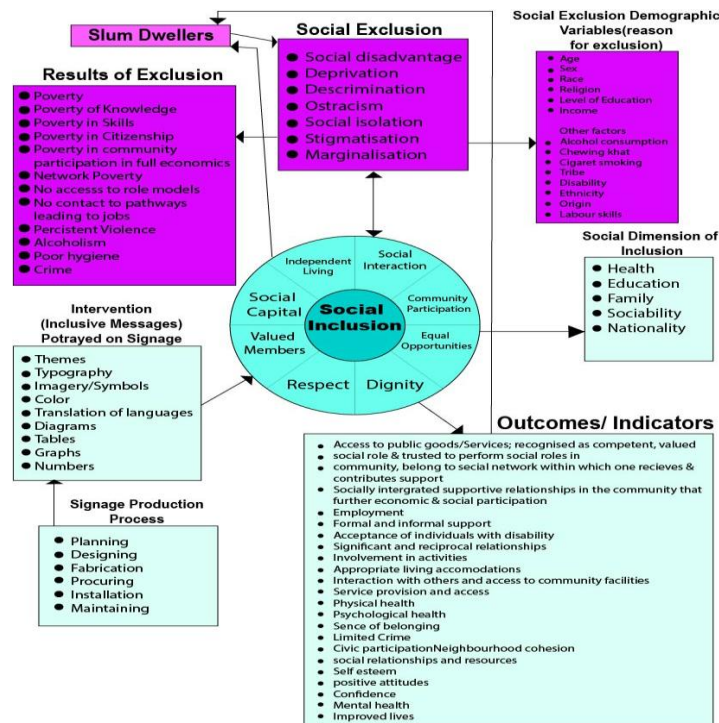
Source: Researcher

2.1.1 Syntactic theory of visual communication

Bawir (2019) talks about Paul Martin Lester's "Syntactic Theory of Visual Communication" (Lester, 2006) which is about the significance of pictures and images in our everyday life. Bawir also mentions that we are becoming more reliant on visuals in our society. Many people are able to understand the world by looking at pictures instead of reading words.

He is saying that even when we were young, we learned things using pictures and other visuals. And now that we are older, we still like to learn in the same way. Visual literacy is really important for learning because it helps people understand and make sense of art and visual media when they see them. Visuals like images or videos can help us understand texts better. They can also make us think more deeply about the hidden meanings in the visuals. Pictures and images have made it easier for people to learn by removing obstacles or difficulties. This can be seen in many things around us, like local road signs and safety signs. Non-verbal speakers use hand positions and pictures to communicate with others (Bawir, 2019).

There is a link between seeing things and remembering them because people tend to remember more of what they see than what they hear. Recent articles explain that our long-term memory is very powerful and can store many concepts. They also mention studies that suggest that pictures have a special way of going directly into our long-term memory, with each image containing its own meaningful information. Adding more pictures, graphs, and other visual elements to a presentation makes it easier to remember the information for a longer time (Cowan, 2009). So, the Syntactic Theory of Visual Communication connects with social inclusion by showing how visuals, like signs, can help people remember inclusive messages, understand hidden meanings, and learn about important parts of a community without any difficulties (UNESCO, 2020).

There is a lot of evidence from research studies that shows that communicating with pictures or visuals can be much better than without them. Pictures and short videos show more and are more exciting than content with lots of words. In a world full of

information, it's difficult to get people's attention and even more difficult to keep it (PWC, 2017).

Here are just a few examples. Bruner (2004), A psychologist from New York University said that research has found that people remember very little of what they hear or read. However, they have a much better memory for things they see and do, remembering around 80% of those things. The government's training materials say that when information is shown and spoken, people remember it better even after three days compared to when it is only spoken.

Visual interpretations of information are pictures or images that help us understand and see the meaning of something better. This could include things like charts, diagrams, tables, and graphs. These visuals combine with words to give us a deeper understanding and a different way to perceive the information (Bruner, 2004). Also, Tufte (2011) the researcher and academic have noticed that when we imagine information and come up with bright and wonderful ideas, we are combining images, words, numbers, and art. Color also helps to provide more depth and understanding, as explained further in this paper.

A presenter who uses pictures or diagrams to explain information can make their presentation more effective by making sure the pictures are clear and easy to understand. The more detailed and complicated the information is, the more crucial it becomes. Selecting the right projector is important. A digital projector with a high resolution is the best option for showing lots of details in a clear way (Bruner, 2004).

2.1.2 Tenets/Features of Paul Martyn Lester's Syntactic theory of Visual Communication
The main idea of the syntactic theory of visual communication is that words and pictures are equally important when communicating. Words and pictures are both collections of symbols that represent things. Words are symbols made up of lines, curves, and different shaped figures that can be open or closed. Words, like pictures, can come in different colors, shapes, depths, and motions. Words were originally pictures and are still

considered to be artwork by designers who create fonts and people who write beautifully by hand. However, words still have a connection to their history through things like their size, style, color, italics, bolding, and reversing. Variations mean differences or changes. The meaning of words doesn't just come from what they represent, but also from what they look like (Lester, 2006).

The second idea of the theory of visual communication is that words and pictures we see on screens or in media are both symbols that represent things. Before Helen Keller, who was unable to see or hear, discovered how to comprehend words by feeling objects, her mind was overwhelmed with feelings that she couldn't see or communicate using words. After she learned the word for water, the wet stuff that made her happy, she always thought of the word and the thing at the same time. She didn't have to drink water to feel better again. Now she only needed to think of a name for it. We remember the meaning of words in our minds using symbols, without needing the exact definition (Lester, 2006). In our minds, the symbol and what it stands for are intertwined. Meaning and associated meanings merge into one another.

The third rule of the syntactic theory of visual communication is that words offer assistance us keep in mind visuals. Since they need a unmistakable letter set and a direct structure like words do, numerous specialists fight that pictures cannot be considered a dialect. They do, in any case, agree that pictures can be seen as a collection of pointers that, when assessed in our contemplations, can be seen as a dialect. When both words and pictures are esteemed similarly in all modes of communication, a society's social identifiers will be transmitted from one era to another more viably. Furthermore, in our time, individuals of all societies will be way better able to comprehend one another (Lester, 2006).

2.1.3 How the syntactic theory Buttress the essence of inclusion
Concurring to syntactic theory of visual communication, in spite of the fact that it is hazy what may be the social, devout and instructive influences this visual culture will have upon the world's society, the utilize of pictures may cultivate a return of the word's

significance. Or maybe, a communication medium in which words and pictures have risen to status may be a result of the later blast in pictures (Lester, 2006). Since tv pictures cross all worldwide borders, they gotten to be more effortlessly caught on by nearly everybody. Words are effectively overlooked, but pictures remain in our minds. We may not keep in mind numerous of the truths that driven to the brief understudy rebellion in China's Tiananmen Square in 1989, but you'll be able never disregard the image of the solitary nonconformist standing insubordinately before a line of threatening, green Chinese tanks.

2.1.4 How social inclusion relates with the Syntactic theory of visual communication

According to Bruner (2008), people can remember only 10% of what they hear, 30% of what they read, but approximately 80% of what they see and do. When everyone in society, including at home, school, and work, learns how to use computers for writing and editing text and graphics, we will transition from simply observing to actively using them. The two symbolic structures will no longer have a barrier separating them. Words and pictures will come together to form a strong and unforgettable way of sharing information.

2.1.5 Visually mediated society

    In today's world, it seems that people are starting to see images as more important. We live in a world where we are constantly bombarded with images through different forms of media. They are everywhere in our newspapers, magazines, books, clothes, billboards, computer screens, and TVs like never before in history. People are increasingly relying on visual information in society. For lots of people, they learn about the world by looking at pictures instead of reading words. Words will only be used for official business transactions and in books that will only be read by a small number of people. Reading is not as popular as watching because watching things on a screen doesn't require much thinking. Visual communication is the use of pictures or images to share messages (Hardt, 2008). However, people who can only understand words and cannot interpret images will not be able to understand the message.

2.1.6 Visual literacy

Visual literacy means being able to understand and make sense of pictures or images. It is a valuable skill that goes beyond just being able to read and understand written words. Visual literacy means being able to understand pictures and find meaning in them (Orland-Barak & Maskit, 2017). Visual literacy is a basic skill for learning because it helps people understand and make sense of art and visual media when they see them. Visuals like images or pictures help us better understand and interpret different texts. They can show us meanings that are not immediately obvious. Pictures and other visual aids have made it easier for people to learn.

2.2 Social Inclusion

Social inclusion means that everyone, no matter where they come from, should have the same chances to succeed in life and reach their goals (Rawal, 2008). The arts have been shown to be a strong way to help people come together, heal, and join society again. Taking part in artistic activities helps people come together and get along, even if they are different. They can assist individuals in anticipating a fresh start and an improved future. Art can help make people feel better about themselves and their community. It also gives them hope and makes them believe in a better future.

We should remember that helping everyone feel included in society might or might not make it easier for everyone to get along with each other. Societies that usually stick together might leave out certain groups of people (United Nations, 2010). Social inclusion and social integration are often used interchangeably, but they have different meanings. Social integration and social inclusion make societies stronger and more united. This report discusses social inclusion and social cohesion. It looks at indicators related to both concepts, but its main focus is on reducing social exclusion and promoting social inclusion.

Art and design interventions are important in helping society become more social. (Chcc-Matyszek, 2018) They help us understand what other people want and need, and how they express themselves in public. Art makes people think and design helps fix

problems. However, both ways can help bring about a change in the government system. Sadikoglu (2021) examined how public art festivals can bring together Turkish and Greek Cypriots, helping them to communicate and respect each other's cultures. Aerne (2021) explores how two art pieces that are not living beings are shown in the public space.

Inclusivity means being open to all and not excluding anyone. An inclusive organization/club/company welcomes and accepts all people, regardless of their social/economic status, skin color, sexual orientation, religion, gender identity, and more. Exclusivity means that something is only for a few people and not for everyone else. If something is exclusive, it will not include certain things, people, or groups.

2.2.1 Signage that portrays social inclusion of Slum dwellers

In recent years, many organizations that help with development have realized that having knowledge and information can help reduce problems and make the lives of poor people better. When poor people don't know about their rights or the services they can use, or the plans for their communities, or how to solve certain problems, it makes their lives harder and they become more at risk. Providing signs with information in the slums would greatly help people understand how to use the resources and services available to them, and allow them to be a part of the planning process for their area. This would make them better able to deal with various social, economic, and environmental problems. A study in India discovered that areas with access to newspapers were better at preventing floods and droughts (Timothy & Burges, 2002).

The best ways to improve the lives of people living in slums are to help individuals and communities develop their abilities and transfer their skills. It is also important to have productive discussions with institutions, like local governments, that can make a difference in the lives of people in slums. These strategies have the potential to improve the resources and health of slum residents (Sheuya, 2008).

Landmarks are like important signs in cities. The question is about how people find their way in cities using landmarks. People pick specific places in the city to help them

know where they are. In the city, there are certain things that help us find our way. These things can be natural or made by people. Landmarks are examples of these things, and they are used all over the world to communicate and guide people (Bala, 2016). People in the slums of Kikubamutwe used signs and symbols to find their way to important places like schools, markets, and public services.

Symbols used on signs in poor areas are often the same as symbols used in formal pictures. Urban symbolism often involves highlighting important aspects of cities like buildings, landmarks, and things found in urban areas. Symbolism is the use of special signs and pictures to represent ideas. Different regions and countries may have different symbols that mean different things. Symbols are often pictures, words, sounds, or movements. They are used to show what people believe, think, or believe. Most cities cannot survive without slums, which are the result of different perspectives and realities. Urban slums have different symbols or pictures that help create the spaces where people live and work every day. They can be seen or not seen; they can either do things or not do anything; and they can be proper or casual (Zapulla, 2014).

According to Kahn (1999), many people around the world see the internet as a lively way to communicate and do business. The internet started as a way for researchers to share ideas and messages through digital signs. In the past few years, private companies have invested a lot in improving the internet and its recent growth has primarily come from these investments. It helps communities with learning and studies. The internet is widely available and has made governments more aware of how they communicate their policies and programs. In the 1980s, technology started to be used more and sold to more people. This helped connect schools and other communities and also helped government programs. People now sign up for different types of internet connections provided by phone companies. These connections transmit data very quickly and are offered at affordable prices. Online shopping is doing really well and there are now better ways to find all sorts of things, including being able to find people.

James (2012) examines at how easy it is for people with disabilities to use road signs and infrastructure in Papua New Guinea. The roads in PNG are getting better, but there are still safety issues. People with disabilities have a hard time using the roads because of physical and other obstacles. James will discuss the problems and solutions for disabled people using the roads in cities. He will also talk about how road projects in rural and urban areas affect the lives of disabled people and their families. Places where people can cross the road those are close to a school or hospital. He recommended using pictures and making posters to show the good and bad parts of the road and associated things, and also suggests ways to make them better.

Rajé (2018) explains why it is important to have transportation infrastructure that is accessible and available to all people. In simpler terms, he explains that policies and programs should be fair and available to everyone, including those who may face discrimination or be left out because of things like disability, gender, location, money, age, or other traits. He says that in order to achieve sustainable development goals, road signs must be designed to include everyone in society, especially vulnerable groups like children, youth, people with disabilities, people with HIV, older people, indigenous people, refugees, internally displaced people, and migrants (UN, 2016). Road signs help people find and go to places like stores, hospitals, and schools.

As Narayan, Pritchett, & Kapoor (2009), it is important to remember that the way societies are run is the most crucial factor in fighting poverty. When you give things to poor people in a place where politics are unfair, it doesn't really make a big difference. However, if you place these things in places that are both free and stable, many positive things can occur. The writer says that countries like Kenya and Zambia are struggling in the modern age of globalization. This is not because globalization is causing their problems, but because they didn't build the necessary systems to benefit from globalization. Poor people who live in slums also need to know about politics so that they can choose good leaders. They also need to understand economics to be better in business, and they should be aware of their legal rights so they can protect themselves

from people who treat them badly. When signs with helpful information are put in a place where they can easily be seen and are changed to suit the needs of the people who use them, they can help improve their lives.

People who are left out or excluded from society often have worse health in many different ways, such as how they feel about their health, how long they live, and how often they get sick (UN-Habitat, 2007). The research also shows that people who are left out of society often use health care services in a disorganized and excessive way. They also face many barriers and problems in getting good health care. Regular services usually do not interact well with people who are socially excluded, and the same goes the other way around. Often, the difficult problems they deal with can cause many people who are left out of society to have disorganized lives. (UN, 2013) Many people don't prioritize reducing lifestyle risks or keeping a good relationship with their primary care providers, which is important for consistent healthcare. The majority of street sex workers in Kabalagala use heroin and crack cocaine, but many of them cannot get medical help because they don't know where to go or how to get it.

The challenge for commissioners and providers in slum communities is to figure out the best way to help people living in those conditions. They want to make sure that all opportunities to support their healthcare needs are used and that they are helped towards a better life. Once this is done, it is possible to improve their health and also provide better value. To make sure that people who are left out of society's activities can get better health results, designers should make signs that regularly highlight the needs of these individuals. These signs should also include information about the costs and the healthcare services that are available for those who are most at risk (NHS, 2020).

Ethiopia's constitution agrees that education is a basic right for all people. It promises that everyone, including those with disabilities, orphan children, and the elderly, should be able to get an education. When policies are approved, they make sure that everyone gets a good education and training, regardless of who they are. They also let people from different countries learn in their own languages and give extra help to those

who need it. The inclusive education strategies are plans to create fair and equal education systems that give high-quality education and training to all individuals with special needs. The goal is to help them fully participate in their country's socio-economic development. However, schools are not well-designed or equipped to meet the needs of all students. They have inconvenient building designs and lack proper signage, which makes the playgrounds, ramps, and classrooms unsafe (Global Education Monitoring Report Team, 2020).

To communicate well with people, it is important to deliver a message in a clear and easy-to-understand way using a specific method. One effective way to share information with the public is by using signs. A complete sign program should focus on safety, help manage an area, give visitors a chance to learn, and create a positive image for everyone involved in the area's management. Create a design that takes into account the surroundings of the area, like the main natural features, colors, shapes, and textures. Also, consider the cultural aspects, existing or future buildings, and the variety of the area. Furthermore, the base of the sign and how it is mounted should match the theme. Guidelines give you the information you need to make, design, get, put up, and take care of signs (Usbr, 2002).

The United Nations report (2001) says that globalization affects people and countries differently. Some gain more benefits, while others face more costs. In a lot of cities, poor people who live in urban areas are now facing another way of being left out from society. The poor people in cities like Nairobi are still not benefiting from the information revolution because they face obstacles like language, lack of education, and inadequate infrastructure. In today's world, having good connections and access to information will decide how wealthy and powerful a person or group is. Sadly, people who are already poor and live in cities are in danger of becoming even more marginalized and impoverished. Their lack of wealth will not only be determined by how much money or belongings they have, but also by their ability to create, get, and share information. This is called "information poverty".

According to the World Bank (2011), having information is very important and can give you an advantage or control over others. When citizens are knowledgeable about what is happening around them, they are more prepared to make the most of chances, use services, practice their rights, and make sure that both government and non-government organizations are doing their jobs properly. This means that it is important for poor people and other excluded groups to have a say in decision making. They have valuable knowledge and priorities, and by involving them, the use of limited public resources can be more effective and lead to positive changes. But, to keep including everyone and letting them have a say, the rules should be changed to make room for people to talk about important things and take part in making decisions about money and services. There are different ways people can get involved in making decisions about their community. This can include sharing information, having meetings to discuss ideas, learning new skills, and taking part in government programs.

According to Saxe (2014), when people have a strong desire to buy things and are offered many different options, it makes it difficult for sellers or big companies to sell their products because they have a lot of competition. This is done by using different ways to tell people about something, but advertising outside is the least expensive option. These advertisement signs come in different forms like large signs, signs with messages that are painted, printed or electronic, signs displayed on boards, and signs that are like posters or flags. Billboards are a really good, affordable, long-lasting, and attractive way to advertise and share public information. The competition between different private companies or groups leads to too many signs being displayed. This means that the city is filled with signs on the buildings and the skyline is made up of signs. The city seems like one big advertisement. The signs are popping up randomly in the city without planning how big they should be, where they should go, or what pictures they should have. These things are allowed after meeting the set standards for height, without considering how they look or fit in with the city. Because there are many advertisements signs, it is difficult to find public amenities signs like traffic signals, washrooms, hospitals, schools, and directional signs become hard to see or understand. The people in charge have no control

and do not work well together. This doesn't have any consistent impact to make the city easier for regular people to understand.

It is important to wash your hands often with soap and water to stop the spread of Covid 19 in slums and informal settlements. The United Nations, along with the help of governments, organizations, and community leaders, wants to involve more people in their efforts to improve hygiene and raise awareness about Covid. They plan to work with community networks, youth centers, and groups to train volunteers and provide places for hand washing. They will also spread messages about hand washing and Covid to educate people. The United Nations Human Settlements Programme is an organization that focuses on improving living conditions in cities and other human settlements. They work towards providing adequate housing, basic services, and sustainable development in these areas (United Nations Human Settlements Programme, 2020).

According to Diko (2003), signage is a type of language that helps us communicate and connect with each other in cities. It is considered part of the broader discussions about the language and communication used in urban environments, known as linguistic landscape. Signage is important for safety, economic development, and planning that benefits the public. In simple words, communication in cities helps people understand and navigate the social, economic, and political aspects of city life. These factors are important in making a place appealing to people and businesses.

Signage shows how language helps with the way cities look and how they work for businesses and politics (Diko, 2003). Because of this, signs have the important role of showing what an area is like using pictures and emotions. According to Diko (2003), digital signs are commonly used in various retail settings, like shopping streets, malls, and stores. However, these signs face challenges due to regulations and land-use policies that often consider them annoying in cities.

2.3 Signs and symbols of Social inclusion

Signs in cities are divided into five groups based on what they are used for. The first type of signs helps us know which way to go, like when they have arrows or say where a place is. The second type of signs helps us know where we are, like when they have street addresses or names of places. The third type of signs gives us information, like when they list recreation centers and their opening hours. The fourth type of signs tells us about rules, like when they restrict where we can go. The fifth type of signs warns us about danger, like when they tell us to be careful (Diko, 2003).

Symbols used on signs are often used to represent things in a formal way. Symbolism includes complicated ideas and pictures that represent a way of seeing the world on many different levels and sizes. They often come in the form of pictures, words, sounds or movements, and are used to show what people believe, think and think about. Urban symbolism is often linked to making cities more beautiful by highlighting important buildings, objects, and landmarks (Bala H. A., 2016).

In the beginning of 2011, a group of people from different countries went to Kabale, a place in Southwest Uganda, to create maps for the slum areas. With the help of a dedicated and well-organized person leading the effort to create a map, Mr. Kakindu, who is a teacher, showed the local team symbols that represent things like electric poles, water points, and garbage skips in Kabale slum. The person made sure the group understood these symbols and then showed them maps of Kabale's neighborhoods. The group was given a task to find specific parts on the maps to demonstrate that they know how to read them (Dobson, 2011).

Many communities around the world now believe it's crucial to use digital technology to create maps in order to identify and help poor people living in cities. The movement wants to help the poor people in cities stand up for themselves and protect them from being forced out of their homes. The way to get the right to the city is by counting the people who live there, understanding their characteristics, and creating a map. This is done by the people who live in the city. Through involving community

members in the zoning process and collecting data that represents their needs and concerns, residents are better equipped to fight against eviction policies. This empowerment comes from being able to provide evidence of their presence and importance within the community (Choplin & Lozivit, 2019).

Color is very important for signs that help with traffic, warn people, and keep everyone safe. Traffic signals, signs, and painted lines on the road are used to control the flow of traffic and keep it organized. It is crucial to know and follow them. It is against the law to go around these traffic controls by driving through a parking lot or field. Traffic signals are rules that drivers, motorcycle riders, bicyclists, and pedestrians must follow. These signals tell you when to stop or go. Warning signs are there to let you know about any possible dangers ahead (Virginia Driver's Manual, 2020). To make sure that everyone can understand signs easily and quickly, there are specific rules about their shape and color that must be followed. These rules make it clear when certain activities are not allowed, when there are dangers to be aware of, or when it's safe to proceed. When we want to show different things and what they mean, we use different shapes. A circle means you have to do it or you must not do it. A triangle means it is a warning. Rectangles or squares are used to give safety information. The color red is used for signs that tell you what you can do, like stop signs and no smoking signs. It is also used for signs that show where firefighters are. Yellow signs mean something bad might happen, Blue signs mean you have to do something like wear a hard hat or ear protection, Green signs mean where to go in an emergency or where to find first aid (Croner, 2021).

2.3.1 Layouts for Social inclusion

Social inclusion means making sure that everyone is part of society. It includes different aspects like social, political, cultural, and economic. It happens at different levels in society. The most important parts can be grouped into three connected areas: markets, services, and spaces. (Referring to the figure) The three domains are things that can make including everyone harder or easier. It is also about how people with different amounts of power relate to each other. In simpler terms, social inclusion is always changing and affects people differently. It depends on and influences how well people can participate,

have opportunities, and be respected, which are not equal for everyone in different social groups (Hickey & Du Toit, 2007).

Social inclusion is about focusing on how people interact and work together, while inequality is about looking at the differences between different groups of people. Social exclusion helps us understand who is left out and why, instead of just looking at the big picture of inequality. It focuses on individuals and their actions, and how they affect others. It also helps find and deal with problems related to control or influence (Hayes, Gray & Edwards, 2008).

2.3.2 Typography for Inclusive Signage

Typography is a valuable and often overlooked tool. This can greatly influence how people respond to a sign. In a sign that includes everyone, the way the words look can show the whole message. In cartoons, it can go along with someone talking or be the whole video by itself. So, it's really important for typography to be easy for everyone to use. Choosing the right font for a sign is crucial. To make sure text is easy to read, it's best to use fonts that are commonly used (Nini, 2006). The font itself ought to be simple to read. Avoid using specialized display typefaces with scripts, like Brush Script or Apple Chancery. Dyslexic viewers may have trouble with decorative or cursive font styles.

Limiting the usage of styles that can affect readability, such as italic, bold, all caps, or other variations is the best practice for accessibility. For viewers with limited eyesight, small font sizes, italicized text, and full uppercase text can be challenging (Jensen, 2006). It can be difficult for viewers who have reading or vision impairments to understand type that is closely spaced. In terms of typography, viewers can benefit from larger text, shorter lines, taller lines, and wider letter spacing.

Typography that is accessible should help the viewer navigate easily through the design, starting with the most important idea and ending with the least important. The way words are placed, how big they are, how heavy or light they look, and what color they are can all be used to figure out which words are most important in a design. Typography

is a way that designers can make their content easier to understand (Song et al., 2023). It is important to know that each of us sees the world in our own way, which is why our differences are great. Although it may not be possible to create a design that is accessible to everyone at the same time, as designers, we can still try to reduce the difference and make it more accessible in any way possible.

2.3.3 Messages themes for inclusive communication on signage

During the corona virus outbreak that affected many economies around the world, the UN-Habitat began a project to help young artists who live in the informal settlements of Nairobi, which is the capital of Kenya. These artists painted graffiti murals to inform and educate people about ways to stay safe from COVID-19. In 2020, the pandemic affected the most vulnerable people in the world, especially those who live in informal settlements. In Nairobi, over half of the people live in crowded areas. Many workers and people with jobs that are not officially recognized lost money when their work was stopped and their movements were limited. During this time, UN-Habitat collaborated with young people and artists from Kenya to create important messages about COVID-19. These messages focused on actions like washing hands, keeping a safe distance from others, and wearing a mask. Important information about safety and how to behave on public transport was shared through graffiti art on walls (UN-Habitat, 2020).

Choplin and Lozivit (2019) suggest that using a street-house method to figure out addresses is a good way to identify streets and houses. It involves using a system to label houses so that they can be easily identified. They explain how the systems that identify people are not good enough and this is causing a worrying problem for city services. If there are no street coordinates, it becomes very difficult to navigate a city that keeps getting bigger. It also becomes hard to send ambulances, firemen, and police quickly when there are emergencies. Delivering mail and messages to people's houses becomes a problem, and providing city services becomes almost impossible. It can be difficult to figure out problems with water, electricity, and telephone systems. Furthermore, implementing a effective tax collection system becomes difficult.

A Street addressing system helps people navigate the city easily and makes it more user-friendly. It also helps emergency services like healthcare, fire, and police to reach people quickly (Choplin & Lozivit, 2019).

During the COVID-19 outbreak, slums were in danger because of lots of people living close together, which made the virus spread quickly. It was hard for people to stay away from each other because their houses were too full. They had trouble getting healthcare and had to use crowded transportation. They also worked in jobs that weren't official. To prevent the spread of infections, governments in Africa took steps to create new community habits and practices that are effective and can be implemented on a larger scale. For example, in Liberia, there was a restriction on movement from 9pm to 6 am to limit evening activities. In Kenya, there was a big effort to promote wearing masks and improve healthcare services and communication to be able to test more people. These things were done by making use of media campaigns that involved printing signs (World bank, 2020).

2.3.4 Colors embracing social inclusion for slums

Color is a big deal for talking to each other, talking to nature, and talking to people about products and selling. This is something that people quickly understand because it is a fundamental part of how we visually perceive and comprehend things (Kumar, 2020). Colors grab people's attention before they fully understand what they are looking at. Color is important for how we visually communicate because it has a strong and quick effect.

Color helps people find information faster. For instance, when you're looking at a map or standing at an information kiosk. In a design, using brighter or bolder colors or a special color in one area can help viewers know what to look at first. Using different colors in charts or infographics can help organize information and make it easier to understand (De Bortoli & Maroto, 2001). It can also help direct and focus the viewer's attention on specific parts. Overall, color is useful for making complex information simpler to

comprehend. We all know that some colors can make us feel certain emotions or affect our moods.

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2.4 Appropriate signage with messages & concepts for social inclusion of slum dwellers

Signs help people in cities be aware of dangers and know where to get help when there is danger. This problem arises during the construction phase and affects the safety of the entire city area. For example, researchers looking at how people find their way in public spaces have mostly been concerned with keeping people safe (Ministry of Justice, 2009)

Some of the signage used in slums include;

Landmarks are important points on a map that help people find their way and confirm the path they are taking. They can be classified into different types such as important points, pathways, and boundaries. They are like an outside guide that helps you know where you are in a place you know well or one you don't know. They are signals in the city that show where things are. Landmarks are things that we see and remember because of how they look or what they mean to a particular group of people. They assist with finding directions in poor neighborhoods and help visitors figure out which areas are safe and which are not (Bala H. A., 2016).

There are 5 signs for health and safety, and each sign has a different meaning. Different health and safety signs come in different shapes and colors. Each sign uses a

picture or symbol to convey a different message. The signs that indicate different health risks are explained below. Prohibition signs are used to warn you not to do something because it is dangerous and not safe. These signs are usually in red color as red represents danger. These signs are round and have a white border. The picture on the sign is white and is on a blue background. Second, there are Mandatory signs. These signs are round in shape and require you to follow their instructions. Warning signs are placed to let you know about dangerous things, and they aren't like the other signs that say not to do something or to do something. Their goal is to inform you about dangers, so that you can keep yourself safe. These signs are shaped like triangles. Safe condition signs are signs that show safety. They are usually green and have a rectangular or square shape. They have a white picture on a green background with a white border. Finally, firefighting signs help you find fire equipment and they are the color red (Haspod, 2020).

Lanarc-Golder (2021) It is important to make sure that buildings and public spaces in cities are accessible and welcoming for everyone. Doing this can help prevent crime and make the city more enjoyable to be in. We can use the design of the city to make it safer and more attractive, while also creating a unique feel to the place. The crime prevention through environment design disagrees with the belief that safety can only be achieved by creating fortresses with walls, cameras, and guards to protect private property. This promotes the idea of putting markers on paths, sidewalks, gates, lights, and plants to help people find their way to and from different places.

Diko (2003) notes that the provision of signs "through window displays, signboards, billboards, posters, and other forms of outdoor advertising." These communications have most recently taken place on buses, trains, and via retail malls.

GSMA (2020) says that using digital platforms can help make jobs official, make working conditions better, make transportation routes more organized, and decrease corruption. This means that Grab in Singapore and Go-Jek in Indonesia are two mobile apps that have become popular in many different countries in Southeast Asia. At first, these companies started as services for getting rides. But now, they have also started

offering services for making payments without using cash, ordering deliveries, and booking rides through their app.

This chapter has shown that some experts believe that signs help people know where to find important things like services and opportunities in a city. Most importantly, they help people find businesses and places for social and political events, so they can get what they need. In simpler terms, signs are important because they help people meet their needs in different ways. They make it easier for people to find their way around in cities and feel safe. Signs also give people information about where to find things or how to make the most out of economic opportunities. Simply put, they assist in meeting Abraham Maslow's hierarchy of needs (Iversion, 2012).

CHAPTER THREE: METHODOLOGY

3.0 Overview

Chapter three reflects the methodology used in this study on the production of signage for social inclusion of slum dwellers in Kabalagala-Kikubamutwe in Makindye division, Kampala district. It presents the research design, population sample, sampling and sampling technique, methods and instruments of data collection, procedure of data collection, ethical consideration, validity and reliability of instruments and data analysis.

3.1 Research design

This study used a case study research design. This approach was chosen because, like this research, it involves a thorough examination of a certain topic or population, in this case slum dwellers. In this study, the researcher focused on social inclusion in slums. Case studies are frequently utilized in social research. In this study, the researcher used qualitative approaches to describe, compare, evaluate, and comprehend various facets of the research topic, which is a lack of social inclusion among slum inhabitants. The case study was the most effective of these methods. We examined the exceptional, overlooked, or outlying situations, such as the demographics of the residents of Kikubamutwe and the area's social dimension, which provided fresh insight into the research issue (McCombes, 2019). According to Creswell, research designs are "the plans and the procedures for research that span the decisions from broad assumptions to detailed methods of data collection and analysis".

Yin (1994) explained that a case study is a comprehensive research strategy that deals with situations "in which there will be more variables of interest than data points," "relies on multiple sources of evidence, with data needing to be converged in a triangulating fashion," and that "benefits from the prior.

A case study research strategy was used because it makes use of methodologies including interviews, observations, and analysis of primary and secondary materials, such as (photographs, Signposts, writings on walls, and slum people). Inductive reasoning, which begins with observation of individual instances and strives to establish

generalizations, is one of the greatest methods for reasoning that may lead to the acquisition of new knowledge. Although the hypothesis formed via qualitative study is an unproven theory, numerous sources of evidence are utilised in qualitative research methodologies, which generally follow an inductive process (Hyde, 2000)

The case study research design aims to find solutions for problems. This design was considered suitable for using graphics on signs to promote social inclusion in slums of Kampala because the goal is to have a deep understanding of the situation and its surroundings (Hyde, 2000)

Information showing which signage is used in the slums of Kabalagala Kikubamutwe was done through observation and photography as laid out in objective one of the study. To achieve objective two which is to create socially inclusive messages for signage in Kabalagala-Kikubamuwe in Makindye Division, the researcher carried out textual analysis of writings on the walls in Kikubamutwe, carried out a discourse analysis of the languages used in the area, developed themes, identified appropriate colors and their meanings, developed images and symbols bearing in mind their interpretation, and translated the messages into 3 languages. Studio practice was used to achieve the third objective which was, to produce signage for social inclusion of slum dwellers in Kabalagala-Kikubamutwe in Makindye division.

3.2 Sample
Taherdoost (2020) explains that, "Sampling is the process of choosing components from a population so that the sample components chosen accurately reflect the population. Based on factors including age, occupation, education, and rank, the researcher divided the study population into categories.

3.2.1 Population Sample
Makindye division has approximately 409,500 people in the informal settlements where the target population who are slum dwellers in this division for this study were found (Byamugisha, 2017)

The researcher chose adults between the age of 18 and 40 years, these were both semi-literate and illiterate. These included professionals such as the police, local government leaders/representatives and community leaders.

This population sample was chosen because by virtual of their work they are well placed to have the most reliable data regarding the study.

The study area of Kabalagala Kikubamuwe was chosen because of the high influx of poverty within the area and because of the proximity from the city which makes the area easily accessible (Nsambu, 2009)

Practical/ pictorial population

The researcher analyzed 10 signages which he photographed and these are presented in chapter 4 of the study. Out of 10 signages 100% were found not to bare qualities of an inclusive signage.

3.2.2 Sample size

The sample size of respondents is selected from Lc.1 chairperson, Woman councilor, Community Liaison Officer, Traders, Youth, Police officer, Health worker, and School Teacher. This was determined using a table as suggested by (Taherdoost, 2016). The researcher selected 2 Lc.1 chairperson (used 1), 3 Woman councilor (used 1), 5 Community Liaison Officer (used 2), 150 Traders (used 20), 10 Youth (used 5), 1 Police officer (used 1), 1 Health worker (used 1), and 1 School Teacher (used 1), because they were available and directly affected by the inefficient communication on the signages available in the study area. This sample size was used because it is manageable and very big number may have led to diversion.

	Selected	Used			
Lc.1 chairperson	2	1	Interview	Purposive Sampling	Here the researcher interviewed only one because the views were the same
Woman councilor	3	1	Interview	Random sampling	Similar views
Community Liaison Officer	5	2	Focus group discussion	Random sampling	Similar views
Traders	150	20	Group Discussion	Random sampling	The researcher randomly sampled the traders to get an honest opinion about the signage situation
Youth	10	5	Focus group discussion	Random sampling	there is a big population of youth in the area and the best way of sampling was random
Police officer	1	1	Interview	Purposive Sampling	Because there is one officer representing community social issues
Health worker	1	1	Interview	Random sampling	To get the opinion about disabled people's access to health facilities
School Teacher	1	1	Interview	Random sampling	Because education is among the social dimensions of inclusion

Table 1: The Population Sample Shows the population sampled and sampling techniques used

3.2.3 Sampling Technique

The researcher used the purposive and convenience sampling techniques. The researcher selects units that are convenient at hand and easy to reach (Taherdoost, Sampling Methods in Research Methodology;, 2020) .

According to Taherdoost (2020) Purposive sampling is a technique in which specific locations, people, and events are chosen consciously in order to reveal crucial information

that cannot be learned from other options. When a researcher feels that certain cases or volunteers should be included in the sample, this occurs (Taherdoost, 2016).

Purposive sampling was used based on community leaders, government employees, health professionals, and young people who are aware of the locations of the various signs and how these signs speak to their needs and emotions. Themes and messages were also chosen by the researcher depending on the agency and needs expressed by the respondents.

3.3 Data Collection Techniques

According to Mbokane (2001)   data is information obtained during the course of the study. The researcher used the methods of interviewing, photography, direct observation, library and archival search. Primary and Secondary data was used:

3.3.1 Primary data

The researcher gathered primary data from and inside the Kabalagala Kikubamutwe community using observation and photography. When one or more visual images are used in an interview and participants are asked to comment on the used visual images, this technique is known as photo elicitation. Photo elicitation uses photographs to elicit verbal discussion and produces a different kind of information by evoking emotions, memories, and information. Processing visual images with words takes up less brain power than processing words alone. This is likely the reason the photo elicitation interview is more than just an interview process; it is a technique that elicits additional information and evokes information of a different nature. Data gathering techniques and data analysis techniques can both be used with photo elicitation interviews (Glaw, Inder, Kable, & Hazelton, 2017).

Data was gathered using a variety of methods, including interviews, observations, photography, and note-taking, or what has been referred to as "thick description" (Glaw, Inder, Kable, & Hazelton, 2017). These were employed by the researcher to gather data regarding the usage of signage depicting social inclusion of slum dwellers in Kabalagala-

Kikubamuwe in Makindye Division. In order to achieve objectives one and two, he also used these techniques to create socially inclusive statements for use on signage across Kikubamutwe. In this study, the interview guide, observation checklists, and photography check lists were all employed as tools.

3.3.1.1 Direct visual observation

The researcher used direct visual observation through visiting different location within and at the periphery of Kikubamutwe, these areas included public spaces like churches, hotels, schools, markets, municipal offices and walls bearing graffiti writings. The researcher studied the signages onsite carefully to find loopholes in the visual communication they portrayed. Here he looked for elements like techniques, materials and messages to present on the signages (Glaw, Inder, Kable, & Hazelton, 2017). This was done in order to get interpretations and understanding of various attributes from the selected signages more especially on the mode of presentation of the message.

3.3.1.2 Photography

The researcher used photography to determine the presence of signages in Kabalagala Kikubamuwe. This was to satisfy objective 1 and 2 of the study (Glaw, Inder, Kable, & Hazelton, 2017). The photographs that were analyzed also doubled as evidence of the inappropriate signage existing within the study area.

3.3.1.3 Interviews

The researcher interviewed academicians, Professionals and community leaders of Kabalagala kikuba mutwe using prepared interview checklist (appendix 2) that the researcher prepared prior and this guided him on the areas of interest which he noted when carrying out the study (Glaw, Inder, Kable, & Hazelton, 2017).

An interview guide (appendix I) was generated in order to collect data about the extent to which signage is used Kabalagala slum in Makindye division. The value of interviewing as a method of data collection in research is not only because it builds a holistic snapshot, analyses words, reports detailed views of informants; (Oloka, 2017) but also, because it enables interviewees to "speak in their own voice and express their own

thoughts and feelings" as describes (Alshenqeeti, 2014). Structured and semi structured questions for the interviews were used to obtain information from the sample (Formplus, 2020).

3.3.2 Secondary data

This was gathered through electronic sources and several books. These included: research literatures, articles, journals and documents from Local authority. (Ajayi, 2017) The researcher visited the KCCA (Kampala Capital City Authority) library to find information about the different settlements in Kampala and read numerous articles of the OSIEA (Open Society Initiative for East Africa). This was done because the researcher wanted to compare notes in general with other researchers around the world.

Library and archival search made it possible to access relevant data collected in order to satisfy the objectives of the study. Through this method the researcher consulted both published and unpublished sources to get information about themes, and processes used in the execution of signages to obtain their limitations in communicating inclusively. This method enabled the researcher to compare information he got from electronic sources with that gathered through interviews in terms of visual, text messages, and color to explore how inclusion is achieved in communities world over.

3.4 Procedure of data collection

The researcher picked introduction letters from the university department to go and administer the interviews in kabalagala kikubamuwe slum. (Byrne & Kluwer, 2017)

3.5 Data analysis

The data collected from the interviews, the observations and photography, was transcribed and analyzed according to the objectives of the study. Basing on the researcher's judgment, different drawings and sketches were developed in order to produce graphical content that would enable slumdwellers of Kabalagala-Kikubamutwe to interpret information on signages accurately.

3.6 Reliability and Validity of research instruments

In order to prevent compromise, data quality control was implemented. According to Mohajan (2017), in order for the data to be reliable and legitimate, they had to be justified, truthful, and have the potential to be generalized. Data collection should be accurate if it is done consistently under similar conditions. Before visiting the various stakeholders (markets, schools, police, and KCCA) to gather data, a pilot study was conducted with the intention of determining the correctness, clarity, and applicability of the research tools. Two experts in the research field were consulted to determine whether the validity of the tools' content.

3.7 Ethical considerations

Considerations of principles serve as a framework for research designs and procedures. They consist of disclosure of outcomes, informed consent, anonymity, secrecy, possibility for harm, and voluntary engagement (Bhandari, 2021).

Before the researcher went out to do research, they received a letter from the person in charge of the art and industrial design department. The researcher gave this letter to the people they were studying. The people living in slums were asked if they were okay with being interviewed. The person doing the interviews promised to keep their answers private and to only use the information for educational reasons. (Bhandari, 2021)

The Makindye division social department and KCCA gave the researcher permission to do research in the area. The letter for the police division was obtained from the Naguru police headquarters, while the letter for the KCCA authority was obtained from the KCCA offices in Makindye division.

3.8 Studio Experimentation

Studio experimentation involves production of artworks using specified materials, tools and techniques (Design council, 2007). This method made it possible to appropriately execute the production of signage for the promotion of inclusion.

The following procedure was followed:

1.   Planning

2.   Collection and identification of tools, materials for procurement

3.   Examining and selecting inspirational objects in the form of photos, illustrations, wordings, symbols and images to use when making signage directed towards mitigating social exclusion.

4.   Selection of techniques used for experimenting

5.   Developing themes, concepts revolving around inclusion

6.   Selecting colors and typography to be used

7.   Studio design process of sample signage using illustrative, prototyping and assembling techniques.

3.8.1 Collection and identifying of tools and materials

The researcher collected symbols and signs picked from walls and other surfaces together with other items found within the slum in Kampala (Dutkiewicz & Bentz, 2020). These came in a number of colors, sizes, shapes and textures and were kept in a box for storage until the time of usage. Color can bring up important questions about how things really are and how our minds perceive them. Among these problems are questions about whether color belongs to a reality that exists independently of our minds, and how we can explain our experiences of color (Stanford Encyclopedia of Philosophy, 1997)

The tools collected were; collected were pens, pencils colored and lead), stencils, paint brushes, plywood, poly-ethane bags, plastics, super glue, mounting boards, and metal plates. Digital cameras which were to collect photographic data during and after studio processes. Laptop (computer), this equipment was used in the process of collecting and putting together both reflections in text and photographic data during and after and within the working process. White manila papers were used in this study because of their

brightness and strength compared to other materials. The pencils helped the researcher draw developments leading towards execution (Stazzone, 2022).

The materials and tools are presented in appendix D, whereas sources of inspiration are placed in appendix E

3.8.2 Sources of inspiration

Inspiration is a feeling that motivates people to turn their ideas into real things. People who make things have always said that being inspired is important for making things, but scientists haven't really studied this until now (Victoria, Todd , & Michael , 2014).

Allen (2018) states that although observation is the core research inspiration because it provides evidence of a direct phenomenon independent of our understanding and bios. The researcher sought better understanding by searching for inspiration from electronic sources and the reason was to get a concrete and better understanding of the use of color, shapes, language, and themes for efficient inclusive communication.

In Summary this chapter shows reasons why the study will use the case study research design as the best approach because it is a detailed study of a specific subject, or group which in this case are slum dwellers of Kikubamutwe. The study is qualitative because it is best suited to social research similar to social inclusion. The qualitative techniques of data collection such as primary sources like interviews, observation and photography are relevant for this study because they answer both objectives 1 and 2 and they provide for a thorough investigation of the study area. These seek to evoke feelings, memories and information whereas secondary sources like the library books and internet sources provide the wider knowledge as written by other authors around the world. The researcher selected professionals, security operatives, health workers, academicians, local leaders, business operatives and youth and the opinions got from hem are reliable and consistent. The data collected satisfies the theoretical framework hence it is accurate, clear and suitable of the principles that guide research. Finally, to answer objective 3 of the study the researcher went into studio experimentations, prototyping, planning, and

development of themes and messages and used found and improvised materials to execute socially inclusive signage.

CHAPTER FOUR: PRESENTATION AND INTERPRETATION OF FINDINGS

4.0 Overview

In this chapter, the researcher presents and interprets both findings from the field and studio findings in addressing the first, second, and third objective of the study. The signages found in the area of Kikubamutwe fall in the parameters of political and economic inclusion but the study only reveals findings on analysis of those signages that fall in the dimensions of social aspects of society. These findings also show how these signages are executed in terms of the elements and principles of visual communication that are; colors, patterns, messages, layouts, designs, arrangements, symbols and images on signage for social inclusion and are a comparison between other author's discoveries and the researchers experience on which aspects of the graphic communication layouts make inclusive all groups of people found in the slum (Hass, 2014).

Kabalagala-Kikubamutwe like most slums is a result of rural urban migration which brings a multitude of people from all directions of the country. This makes the area a heterogeneous community with people speaking different languages. The languages spoken there are Luganda, Swahili, English, Luo, Runyakitara, Lingala from Congo, Amharic spoken by Ethiopians and Eritreans. However the researcher used the most common languages on the signage (Swahili,Luganda and English).

The languages used in the design process and the final design configuration were based on the selected sampling techniques and not the empirical study. The justification for the use of many languages is to cater for the many tribes living in the slum.

4.1 Signage in Kabalagala kikubamutwe in Makindye Division

There are many signages in Kabalagala-Kikubamutwe that are within the area and they communicate numerous messages such as commercial, political among others, however the study was focusing on socially inclined signages (signs and lines, 2020). From the studies we see that efforts have been made to guide and direct the people on different social amenities although the presentation of these messages lacks consciousness to cater for the many groups found in Kikubamutwe such as; the illiterates, immigrants who speak different languages, people with disabilities, vulnerable groups like

the prostitutes, children, people with visual impairments, and many visitors of the slum who may not know the geography of this place (Citiesalliance, 2011).

4.1.1 Hotel and catering services

The number of hotel and catering services are many because of the huge population and nature of business that is conducted around Kabalagala-Kikubamutwe. These hotels serve all categories of people in the community who must eat as they go about their businesses. Interesting to note is the signage used to advertise and indicate presence of the service are not inclusive because the colors used are dull and the message is written in one language which is English. This puts out the illiterates who are the majority of the people living in this area.

Figure 2: Signpost advertising accommodation in Kabalagala-kikubamutwe
Technique: stencil writing
Location: Kikubamutwe
Message: Overnight sleeping space
Source: Researcher 2019

The signage is made in white background with black and red writings. The dimensions are 80 cm by 55 cm.

4.1.2 Furniture advertisement Billboard

This billboard was found along Gaba road just before shell Kabalagala, the signage does not fall under social dimensions because it is a commercial signage. The message is

written in English which eliminates the illiterates in the area hence making it non inclusive, this affects the people of Kikubamutwe because it deprives them of the opportunity to buy good furniture.

Figure 3: Billboard advertising furniture.

Technique: Billboard
Location: Kikubamutwe
Message: Furniture advert
Source: Researcher 2019

The signage is a billboard type of signage advertising furniture. The company is called footsteps. The billboard is made on 5 metres by 4.5 metres.

To achieve inclusion, the idea must be relatable in style, image and language to the locals, also prototypes could be made before the final billboard is made to ensure that tastes have been made and the signage is relevant to the majority within its display area.

However, the current Furniture signage seems to have been done in a rush without consideration of its layout and communicating abilities

4.1.3 Employment adverts

The researcher found many such adverts printed on paper and pinned against walls and on electric polls. On asking the women councilor madam Nakayiza she said the reason why there are many of these job adverts is because most employers come to the slum to find cheap labor. She said however that majority of the people especially the youth miss out on the job opportunities because they cannot read the English language. This particular reason prompted the researcher to develop symbols that can be understood by both literates and illiterates.

Figure 4: Job advert
Technique: Print publication
Location: Kikubamutwe
Message: job advert
Source: Researcher 2019

The signage is a job advert announcing a vacancy for 3 laboratory technicians, 1 assistant procurement officer, 2 sample receptionists and 2 lab assistants. This advert is printed on an A4 size duplicating paper in black.

4.1.4 Road side vending

Moving along the streets in Kabalagala Kikubamuwe, you see a maze of roadside businesses manned by the seemingly poor people trying to make a living. They make their businesses stand out using small signposts to make their businesses visible and attractive

to customers. The researcher wondered why these seemingly poor and middle-class venders continuously used makeshift materials and crude methods to make signage for their businesses. He found out from one Mr. Were that the people lacked the skill and access to trained graphic designers and therefore relied on a few self-taught individuals who produced the signage (Bruner, 2004).

Figure 5: Roadside food Signpost advertising fast foods
Technique: free hand

Location: Kikubamutwe
Message: food selling
Source: Researcher 2018

The signage is made by free hand on plywood. The words are Bukalango team in black and Fire psalms 23 in red. The signage is made on a 3ft by 2.5 ft white table

4.1.5 Traditional Healers

The researcher found that services of traditional medicine men were common because they appeal to the people's psychological needs, their messages are both soothing and reassuring of the desperate poor who seek divine intervention in the hope of making better their life situation. The signage made is done in the local language Luganda. The signage was made on small size pieces of cloth and PVC canvas material, hand written with ink and a brush. The text was crowded and didn't follow the principles that guide design (Haspod, 2020). Katumba Tyson a youth leader in this community said

that the people flocked these traditional healer's premises because they gave messages of hope and optimism for a better future.

Figure 6: Traditional Healers signpost
Technique: free hand

Location: Kikubamutwe
Message: food selling
Source: Researcher 2018

The traditional healer's signage is a free hand written signage on a 130cm by 100cm size PVC canvas. It was nailed directly against the wall using nails and bottle tops.

4.1.6 Church services

Findings from the interactions with people of Kikuba mutwe proved that among them there are believers, however as stated by madam Nakayiza majority of the people don't feel welcome in the churches because the activities and programs communicated on the signage are written in English. This makes them miss out on building supportive religious relationships and interactions that can improve their lives. Translating the church communication attracts more church goers (Iversion, 2012).

Figure 7: Worship Center Signage

Tech*nique: free hand*

Location: Kikubamutwe
Message: food selling
Source: Researcher 2018

The signpost reads St John Baptist catholic sub-parish of Kabalagala- Kisugu Nsambya parish in Kampala archdiocese and is made on a PVC canvas stretched on an aluminum pipe frame. The signage measures 120cm by 120cm.

4.1.7 Environmental Protection

The signage presented in both English and Luganda lacked proper execution following the basic gudelines of graphic communication and were written in free hand, on a very small space and with conjested wording. Although the indicated fine for culprits of improper waste dumping acts a scaring factor, the colors that were used on this signage were found lacking in driving the message home (Cruz, 2017).

Figure 8: Worship Center Signage
Technique: free hand
Location: Kikubamutwe
Message: Do not dump
Source: Researcher 2018

The signage is hand written on a 50cm by 14cm piece of wood in blue paint. The signage is place against an aluminum iron sheets fence within the slum.

Figure 9: Worship Center Signage
Technique: free hand

Location: Kikubamutwe
Message: No Dumping
Source: Researcher 2018

This signage is a cautioning signage with the words no dumping, fine 10,000 written in free hand on a 40 cm by 30 cm piece of plywood

4.1.8 Graffiti and wall writings
There are numerous wall writings distributed within the slum of Kikubamutwe. This is evidence that the people wish to express their views on many issues.

Figure 10: Graffiti wall writings
Technique: free hand

Location: Kikubamutwe
Message: No Dumping
Source: Researcher 2018

This graffiti piece is written in free hand outlines in white done on a bare wall within the slum.

Figure 11: Graffiti wall writings
Technique: free hand

Location: Kikubamutwe
Message: Contacts and Property sale
Source: Researcher 2018

The graffiti writings here bare names of community champions and some of their contacts.

4.2 Creating socially inclusive messages for signage in Kabalagala Kikubamutwe

Findings show that Kikubamutwe comprises of people with different sex, ages, race, religion, levels of study, income, tribe, abilities and disabilities, ethnicities, labor skills and sometimes visitors. These people possess multitudes of behaviors like alcoholism, prostitution, alcohol consumption, chewing kart and cigarette smoking. (Arimah, 2001) To include the entire community population demographic such that they move and act responsibly to make each other comfortable as they have a good livelihood, there needs to be signage that bares messages understandable and interpretable by all (Citiesalliance, 2011). And these messages should tackle areas in the social parameters of inclusion which include: Health, Education, Family, Sociability, & Nationality.

The messages used in the final signage were derived from the loop holes found in the existing signage and from interviews with the respondents who revealed areas that needed to be addressed and because these particular aspects could impact their daily living directly and positively.

4.2.1 Themes and Visual communication concepts

The themes and visual communication concepts were derived from interactions with Katumba Tyson, and from observation of the rudimentary graffiti writings on the walls informed the study about views of the common people (Taherdoost, 2020). The researcher analyzed opinions from the youth leader who gave his thought about the people's feelings. In response to the feedback the researcher came up with relevant massages packaged in symbols and visible colors.

For efficient communication the colors used were prohibitive to scare and stop people from certain actions and behaviors, encouraging and easy to interpret (Cruz, 2017).

The symbols and signals were developed to be simple, recognizable and easy to interpret (Nediger, 2019).

The wordings used were interpreted into three languages which were; English, Luganda, and Swahili as suggested from the interviews (Tetreault & Webster, 2020).

The road signs were to be neat, clear and smart with arrows to show directions (Cruz, 2017).

4.2.2 Social messages

The study found that there was an information gap in the social dimensions of Health, Education, Family, Sociability, Integration and the environment (Torjman, 2000).

This gap was in the areas of direction because the area lacked a map, road signs to indicate different routes, the landmarks like electric polls were not indicated, and there was no traffic control (Farvacque, Godin, Leroux, Verdet, & Chavez, 2005).

Identification such as street naming and addresses, caution of road condition, painting of pavements and indication of passenger routes walking spaces were also found to be lacking (Farvacque, Godin, Leroux, Verdet, & Chavez, 2005).

There was no Information on location of recreation centers, hotel services and accommodation for visitors, also the location of schools, worship centers, and police stations lacked clear symbols. The Internet and hotspot centers were also among the vital messages thought about in the study that were found lacking (Ghana Statistical Service, 2021).

Graffiti writing that to appeal to the youthful members of the community did not have a clear message because the messages written were often random incites by the community members lack a proper direction. (UN-Habitat, 2020).

Regulatory messages to restrict movement especially during cafew were not seen which put the people at risk of conflicting with security operatives whose orders were to enforce restrictions on movement to stop the spread of the corona virus. (U.S.EmbassyinUganda, 2020).

Warning messages cautioning about dangerous routes within the community were also found to be nonexistent which put the lives of unknowing visitors at risk. (BigRentz, 2017).

Environmental messages cautioning about improper damping of garbage were found to lack the proper prohibitive colors against the action of poor waste disposal. (Nema, 2020).

Sanitation messages calling upon people to regularly wash their hands and sanitize to avoid spread of the corona virus were found nonexistent and yet this was the available option against spread of COV-d 19 since social distancing was proven to be impossible by the chairperson Mr. Kakooza (Unicef, 2020).

Employment adverts to announce the availability of job opportunities. The message was found to be discriminative in most cases because it was written in English. This made most people miss out on networking and job opportunities. (Day, 2020)

Health messages informing people about location of health centers, warning against spread of HIV, discouraging bad vices like smoking, guiding people about firefighting and safety, encouraging people to wear masks to safeguard against COVD-19, indication of first aid centers and equipment. Findings proved that no particular attention was given to health messages and this put people's lives at risk of disease (Tumpey, Daigle, & Nowak, 2016).

4.2.3 How the configured message show inclusiveness, show how they impact the behavior change among others.

The warning signage helped nonresidents of Kabalagala Kikubamutwe to steer away from dangerous zones of the community therefore ensuring safety.

The instatallation of different signage within the community especially those baring maps and directions helped the people in identifying places in the community and following proper directions

The careful use of color ensured that the messages being communicated were sent in the right tone especially for advertisement of services. The warning signs were also done in colors like red which show danger.

The translation of messages on each signage ensured that people from all tribes were not left out ensuring that the entire community was getting the same information to steer the same behavior.

The symbols used were all universal in nature ensuring that visitors from all over the world could understand what the signage was communicating.

4.3 Production of signage for social inclusion of slum dwellers

Whereas the design of signage for inclusion must be based on adaptation, innovation, and regulation provided by communication standards (Worldbank, 2020). The signage found in Kikubamutwe is mostly done without deep research on regulations and international graphical standards. They are not innovative enough to score substantial interpretation and adaptations of the environment in the slum.

Ideation
The studio production process involved planning, drawing opinions and inspirations from interviews and through careful study of wall writings,
Prototyping
This process involves developing sketches, selection and collection of materials, designing, fabrication, and strategic installation of the signage guided by the area map produced. This is in line with the approach adopted by (Design council, 2007).
For development sketches, please refer to Appendix F

How the syntactic theory of visual communication supports the design processes
     Paul Martin Lester's "Syntactic Theory of Visual Communication" (Lester, 2006) showS the importance of visual aids in our daily life and elaborates how people understand the world better by interpreting images.

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There is a connection between seeing and remembering because people remember more what they see than what they hear, therefore in. the design process the researcher concentrated on using clear images and bright colors such that the message being communicated is visible.

Paul Martin lester showed that right from childhood, we were taught through different visual aids and today when we have grown further, we still prefer to rely on the visuals. Therefore, in the design process the researcher used visual aids such as Maps, Charts, illustrations and symbols.

Pictures have a direct route to long-term memory, each image storing its own information as a coherent 'chunk'. The more visual content in a presentation, the more memorable the information will be over the long term. The researcher used photos taken from the study community as inspiration to guide the design process in terms of neatness, clarity and layout.

The more detailed and complex the information being presented, the harder it is for it to be visually interpreted. The researcher based on this to ensure that the work produced is elaborate, simple and of high resolution.

To produce the signage, the researcher went through the following process; the design process involved proper planning and research by involving the beneficiaries in the deciding what symbols and images to use for efficient communicating.

Final products

The final products were made following the different themes and types of messages suggested to be very vital by the respondents sampled.

What are the attributes of inclusiveness from the design perspective that were carried on to the final studio production/ applied in design?

The attributes of inclusiveness that were carried on in the final products as borrowed from the conceptual framework include: Health, Education, Family, sociability, Nationality.

The signage produced tacked all these aspects ensuring that messages are understood, and well interpreted. Beneficiaries are guided properly on directions for proper navigation through the community and for safety.

All signage produced were to cater for al social classes, ages, and people of different academic backgrounds.

Clear and simple symbols were used to aid good memory, the researcher also chose universal images to be understood by all nationalities.

4.3.1 Thematic Signage

Figure 12: Health warning graffiti for COVD-19

Source: Researcher, 2021

The signage below is a directional sign intended to show visitors of Kabalagala-Kikubamutwe where to find the different social services
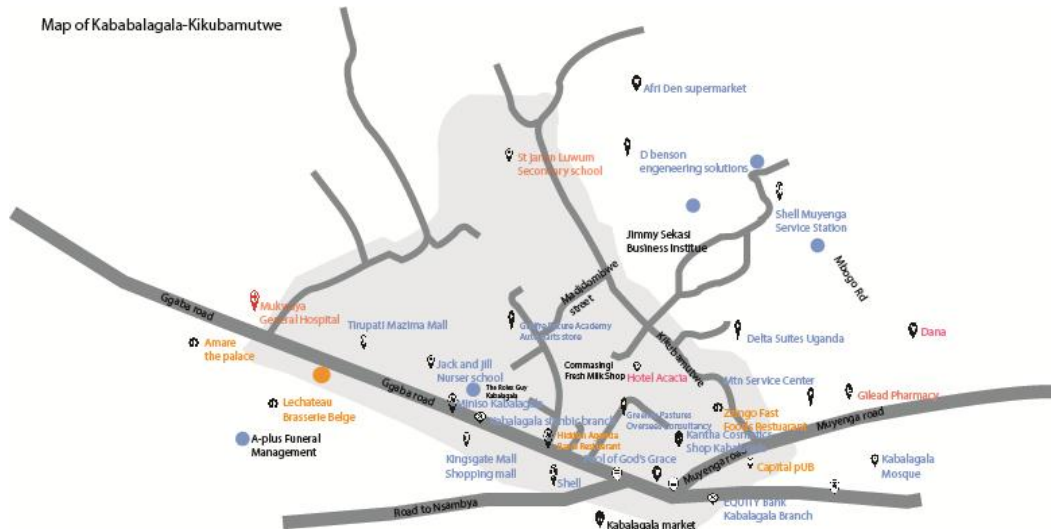
Figure 13: Map

Technique: Computer aided design
Message: Directional signage
Source: Researcher, 2021

Street naming signage;

Figure 14: Street naming

Technique: Computer aided design
Message: Directional signage
Source: Researcher, 2021

Language and interpretation signage;

Figure 15: Market

Technique: Computer aided design
Message: Sign post for a market
Source: Researcher, 2021

Figure 16: Church

Technique: Computer aided design
Message: Availability of worship center

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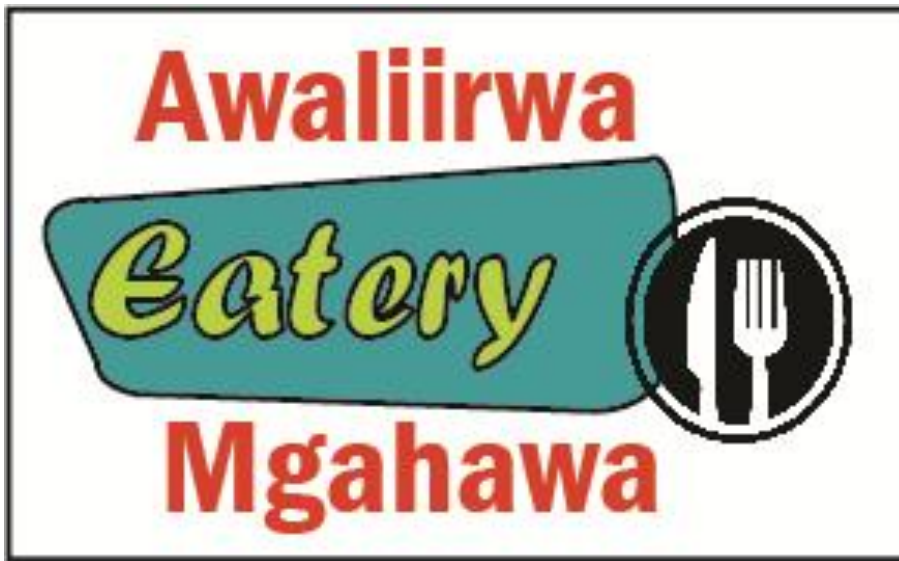
Figure 17: Food centers Technique: Computer aided design Message: advertising signage for eatery

Figure 18: Corona virus Technique: Computer aided design

Message: Guidelines on COVD-19

Figure 19: Water well

Technique: Computer aided design
Message: indication of water well
Source: Researcher, 2021

Figure 20: Hospital
Technique: Computer aided design
Message: indication of hospital
Source: Researcher, 2021
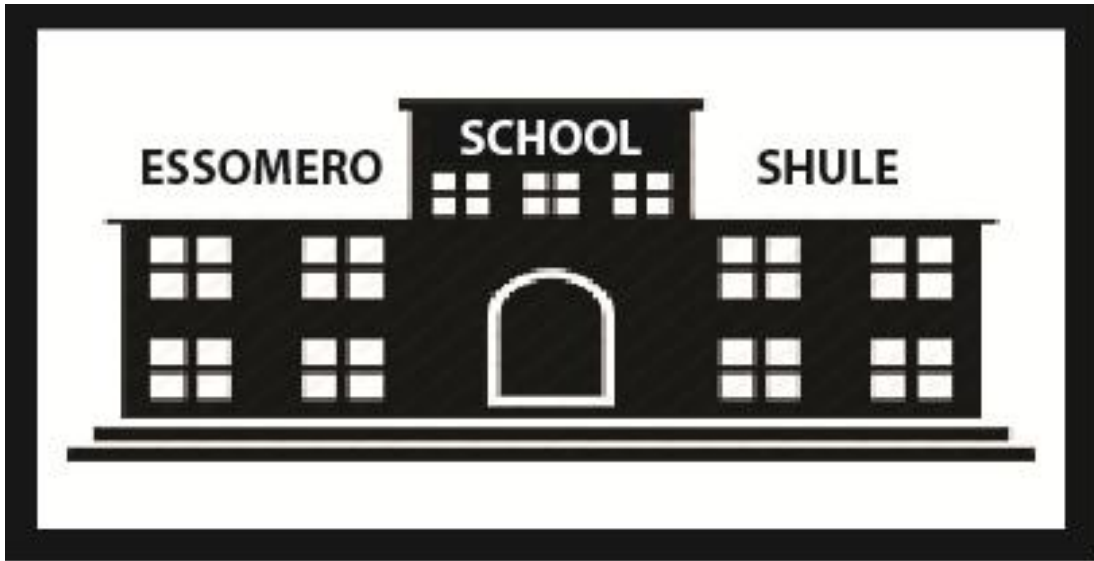
Figure 21: School signage
Technique: Computer aided design
Message: School symbol
Source: Researcher, 2021

Figure 22: Signage for Hotel
Technique: Computer aided design
Message: Signage of hotel
Source: Researcher, 2021

Figure 23: Signage for traditional healer
Technique: Computer aided design
Message: Notification on available services of traditional healer
Source: Researcher, 2021

Figure 24: Wi-Fi/internet
Technique: Computer aided design
Message: Warning against illegal dumping of waste
Source: Researcher, 2021

4.3.2 Symbols Signage

Figure 25: Police
Technique: Computer aided design
Message: police station symbol
Source: Researcher, 2021

Figure 26: Wi-Fi/internet
Technique: Computer aided design
Message: notification on availability of Wi-Fi internet
Source: Researcher, 2021

4.3.2 Color, shapes color interpretations

The image below shows different colors and their meanings;

Figure 27: Color wheel showing meanings of color

Source: Internet
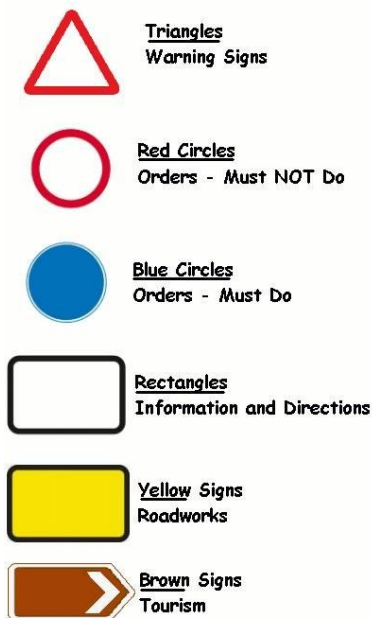
Figure 28: Shapes and their visual meanings;

Source: *Internet*

Tactile typography for the blind
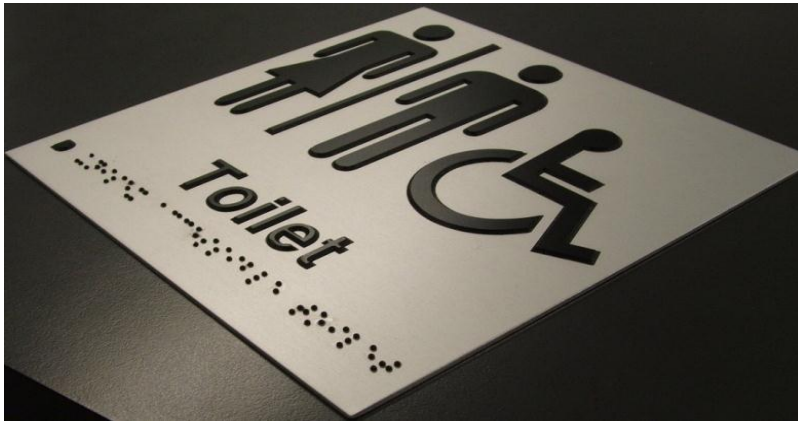
Figure 29: Tactile typography
Source: Internet
Gender neutral typography;

Figure 30: Gender neutral typography
Source: Internet

4.3.4: Usability of the produced graphical cartons in 4.3.2 and 4.3.3 above can be

The graffiti will be painted on open walls to appeal mostly to the youthful groups of the study community.

Both symbols and poster layouts will be used within the community for direction and identification of vital social utilities.

For responses to the corona virus pandemic small leaflets will be printed and supplied to people in Kikubamutwe to create awareness.

Also, banners, billboards and PVC will be used for delivery of the communication.

In summary, this chapter vividly shows and explains the presence of different graphical layouts within the slum of Kikubamutwe exposing the many weaknesses they bare in lacking to score inclusion. It also shows the ides, themes and messages generated by the researcher within the scope of social dimensions of health, education, family and sociability, recreation, and environmental issue, and it shows a few examples of the new simplified signages produced and presented in such a way that they cater for all members of the study are to call for their action and participation.;

CHAPTER FIVE
DISCUSSION, CONCLUSION AND RECOMMENDATIONS
5.0 Overview

This chapter presents the discussion, conclusions and recommendations of the study based on the findings presented in chapter four in relation to the three set objectives. Therefore, the information is presented in the subsequent subsections of this chapter.

5.1 Discussion of findings

The study was guided by three objectives;

1. To analyse the signage that portrays social inclusion for slum dwellers in Kabalagala-Kikubamutwe in Makindye Division.

2. To create messages with themes, images,sumbols,typography & colors for signage embracing social inclusion in Kabalagala-Kikubamutwe in Makindye Division.

3. To produce signage with messages & concepts for social inclusion of slum dwellers in Kabalagala-Kikubamutwe in Makindye division.

In this chapter the researcher presents the discussions, conclusions and recommendations of the study in line with the above-mentioned objectives.

5.1.1 Signage in Kabalagala kikubamutwe

When citizens have more knowledge, they are better able to use opportunities, get help, use their rights, and make sure that both government and other groups are doing their job properly. This text emphasizes the importance of allowing poor people and other marginalized groups to have a say in decision making. This is crucial because it ensures that the use of limited public resources takes into account local knowledge and priorities, and creates a commitment to bring about positive change. However, to make sure everyone is included and can participate, we need to change the rules. This means creating opportunities for people who are disadvantaged to have a say in decisions about important things like government priorities, money, and basic needs like healthcare and safety.

To justify the study the researcher undertook direct field visual observation of the available signage by traversing the entire study area and with the aid of a camera he was able to capture signposts ranging from advertisement posters, billboards, wall graffiti writings and a few sign posts.

Among these were those mostly done rudimentarily using free hand writing with paint and a brush. These did not abide by the rules and guidelines of graphic communication and most importantly the signage was not inclusive of the entire slum population. The slum is made up of a cocktail of different groups of people who fall under the demographic categories defined by age, education level, financial status, race, tribe, gender etc. (Taherdoost, 2016).

It is important to note that the study focused on those signage that fall in the bracket of social inclusion for analysis and examination to find qualities that would rally all individuals for participation without discrimination as advised by (signs and lines, 2020). To locate these signages, the researcher was helped by some of the community members to weave through the mostly congested areas of the slum. This was because there was a general lack of street naming and road signage. The area also lacked a proper map to show locations of many of the essential social amenities to visitors who may not know the geography of the area (Citiesalliance, 2011).

Signage on restaurants and eateries continues to be of lacking quality because the designers do not follow proper guideline that must be employed when making the signage. According to Kakooza the L.C 1 chairperson, these sign posts are not inclusive because they are written in one language. Also, one of the traders claimed that the people are not very concerned about the quality of the signage but the message written in it.

Results also show that the area has many foreigners who find I hard o read and conceptualize the English language. Sembuya a student at Cavendish University said that many of the Ethiopian, South Sudanese and Congolese immigrants find it hard to read the message on the bill board (World bank, 2020).

Also, there is a lot of exploitation which keeps the people in poverty because they are misinformed and many find themselves trapped in undesired working conditions.

The findings proved that it becomes a very hard task to create quality graphic design layouts which communicate efficiently without proper planning, knowledge, and research on the prerequisites for proper visual communication.

Findings showed that majority of the people were left out in this communication because it was not presented in a neat way and lacked simplicity and precision to communicate to the people efficiently.

The church signage in the area is written in one language specifically English and yet the biggest percentage of slum dwellers are illiterates.

Also, awing to the outbreak of the Corona virus pandemic, a description of the situation in the slum of Kabalagala gathered from some of the community members showed that the people were worried because social distancing was almost impossible posing a serious health danger to the people. Therefore, in response the researcher decided to create prohibitive, mandatory and warning signs in response to the COVD-19 pandemic. Another quick response was to encourage the people to abide by the government enforced cafew (U.S.EmbassyinUganda, 2020).

Graffiti played a big role in baring influential information for the community. However, the graffiti writings found within the slum were written without proper though, planning and execution of theme to promote positive change.

The road side businesses are common in Kabalagala Kikubamuwe slum area; the businesses are scattered throughout slum because of the large population and the many commercial activities in the area. Signposts are attached along the business premises as a means of attracting potential customers for their different services. The signage used is of poor quality given their small business capital that runs on an informal structure. Most of the respondents argued that the signage was appropriate and non-inclusive because they were not translated into at least three languages to cater for the many tribes in the community (Tetreault & Webster, 2020).

The state of the environment in slums is appalling. This poor state of environment is attributed to poor waste management associated with limited space in a congested place. Rubbish gathered in the drainage system creates bad stench due to degradation. This has threatened the health and safety standards within the slum community where

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the majority of the needy people dwell. Some of the concerned slum dwellers have expressed their concerns on the deteriorating state of the environment by making signage *(Figure 26)* to deter this bad practice. The communication cautions culprits against indiscriminate acts lest they are fined by the community leadership, however although the warning signs bared a fine which would be scary enough, they did not fulfill the purpose because they were written in one language.

The field study showed that there were impassable of bad roads and sometimes areas that were not safe for visitors to pass however these lacked any form of warning to encourage people to keep away.

Further findings show that many of the landmarks such as power lines, recreation centers, municipal service centers and water lines that would help in locating of schools, markets and hospitals were not marked by any signage thus making identification and location of places difficult.

Finally, Kikubamutwe is known for the prevalence of sexual work with a big population of prostitutes. This is because of its location next to a multitude of bars. The sex workers and their clients rick HIV infections and un-wanted pregnancies. Therefore, to cater for their health needs they need a lot of awareness through signage which was lacking.

5.2 Messages on the signage in Kabalagala-Kikubamutwe

To develop appropriate ideas, messages and concepts for inclusion of every member of this community, the researcher undertook interviews to get views and opinions of the people about facts and details to incorporate in the visual communication layouts displayed around the area that fall within the scope of social inclusion (Ajayi, 2017).

The messages directional, for identification of important public utilities and municipal services, for sociability and family, environmental messages to prevent dumping, sanitation messages that were for hygiene and warning against the spread of the corona virus, location of educational facilities and hospitals, informing about safe conditions, mandatory like wearing of the face masks, showing people where to find internet services, prohibitive like in the case of prostitutes to warn them against the

deadly HIV Aids virus, for traffic control to ensure proper use of roads, to teach against certain lifestyles like the use of drugs (Taherdoost, Sampling Methods in Research Methodology;, 2020).

As shown in the conceptual framework the study overlooked economic and political inclusive messages and focused on Health, Education, Family, Sociability, and Nationality which fall within the category of social inclusion (Arimah, 2001).

In the same token for efficient communication using these messages posed the right power of language and appearance that prohibited, warned, informed, created awareness and encouraged responsibility. To achieve proper response, the right colors, wordings and layout were used. For instance, the color red offers a direct warning whereas blue normally shows messages that are mandatory but in a soft manner. Also shapes like the square are appropriate for prohibition, circular layouts are used for mandatory messages, and triangular signages are used for warnings (Cruz, 2017).

The idea of translation of the different messages was borrowed from the famous electricity warning signs i.e., Hatari, Kabi, Danger which are a translation into 3 different languages for inclusive communication. This was supported by the people in the interviews who suggested a similar approach of using the 3 most widely used languages in Uganda of Luganda, English and Swahili (Tetreault & Webster, 2020).

Messages advocating for Environmental Protection was an initiative by members of the slum community who regard it as very vital since it deters the members of the community from dumping waste irresponsibly. The message is general appealing to the entire community using both English and the local language for emphasis. It was claimed by some of the respondents that attaching a fine against the irresponsible deterring message would further scare off those mismanaging waste (Tetreault & Webster, 2020).

The message in the church service signage is non-discriminatory and calls upon all members of the community to attend service. However, the people feel that they are not being communicated to because all words were written in English yet the largest number of slum dwellers neither read nor write. This incidence also supported the idea of

translation to Luganda and Swahili to appeal to people coming from different parts of the country.

5.3 Production of signage for social inclusion of slum dwellers

In the studio practice the researcher carefully followed steps in developing ideas derived from themes sketching different variations that were later developed into symbols, signals and posters (Design council, 2007).

To produce the signage, the researcher went through the following process; the design process involved proper planning and research for the right symbols to use in communicating. The production was also inspired by views and opinions of community member interviewed for the purpose of developing the right communication concepts. Sketching was used to explore different layouts and possibilities for presentation. The researcher then used a computer to come up with signage for inclusion which was later to be used to guide the fabrication of shapes and later strategic installation all over the slum of Kikubamutwe (Design council, 2007).

Innovative graphic communication is more than just making a logo that people remember. It can show feelings and important messages without using words. The character of a community can be shown by understanding its history, culture, and social context. This promise can strengthen and improve the community's identity and the ways in which rules, regulations, and rewards are used to support and enhance this changing identity created by an engaged society (Cezzar, 2020).

5.4 Conclusions

The Signage that is displayed in Kabalagala kikubamutwe communicate numerous messages that are mostly directed towards advertising commercial goods and other services to the community, however these signages lack socially inclusive qualities to accommodate the entire community within their communication (Elite signs and graphics, 2020).

The study sought to carry out a studio exploration into themes using colors, lettering, symbols, signals, translation and different shapes inspired by people's views got

from interviews and through extermination of wall writings to produce socially inclusive signages.

Signage with social inclusion messages, were developed through the integration of the desires, aspirations and needs of the slum dwellers as a means of communicating salient issues for redress within their community. the signage was intended to galvanize the meaningful participation of the slum dwellers as valuable members of the community who can contribute to, the social-economic development of the area (Hass, 2014).

5.5 Recommendations

Based on the objectives, the researcher made the following recommendations; The poor signages found in Kabalagala-Kikubamutwe that are done with poor materials and with rudimentary skills should be replaced with proper, neat and inclusive signage. These should bare proper symbols, colors and have interpreted messages (Hass, 2014).

The researcher recommends that more research is done on the topic of inclusive visual communication in urban slums for further studies because these are areas where a diversity of people live in congestion and yet they require guidance and encouragement into participation in different issues that can change their livelihoods (Bawir, 2019).

Signs installed in Kabalagala-Kikubamutwe should deliver understandable messages catering to all groups of both locals and visitors. Safety signs must be installed to warn the public of non-obvious safety hazards or to direct safe behavior after risks have been identified, eliminated, or minimized and appropriate safeguarding technology made available. The safety, warning, direction, information, road and street signs must adopt standard colors for maximum recognition (Bawir, 2019).

5.6 Areas of further study

The researcher has contributed towards knew knowledge on studies of inclusion in areas of Safety through warning signs, Directions and street signing within communities, color and its impact on communicating inclusively, Translation on signages especially in heterogeneous communities, universalizing symbols and applying them on signage for the purpose of inclusion

Also, methodologically some of the methods used had a lot of limitations and they need further scrutiny.

Theoretically, other researchers may decide to use another theory which may be more relatable to the variables being studied.

Using the same topic of research another researcher may decide to use a different geographical scope and population scope.

Lastly, in this study the researcher used signages to create inclusion but another medium may be use in a different study.

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APPENDIX A
INTERVIEW QUESTIONS
(Re: introduction of Mr. LUBEGA Andrew, Registration Number: 16/U/13534/GMID/PE)

1. What do you understand by the term Signage?

2. Name any materials used in the production of Signage?

3. What are the different uses of Signage?

4. What are the different techniques employed in the production of various

    Signposts in the slums?

5. What are the different messages communicated on Signage within the slums?

6. What is social inclusion?

7. Do you feel discriminated by the signage within your area?

INTERVIEW SUBJECTS

Local leader from within the community including youth and women representatives, also elected local council leaders from division headquarters in Makindye division.

Community members including market venders, church leaders, small business owners, and community members.

APPENDIX C
MAP OF KAMPALA SHOWING STUDY AREA

Map 1: Map of Kampala showing location of Kabalagala Kikubamutwe (Source: google

maps)
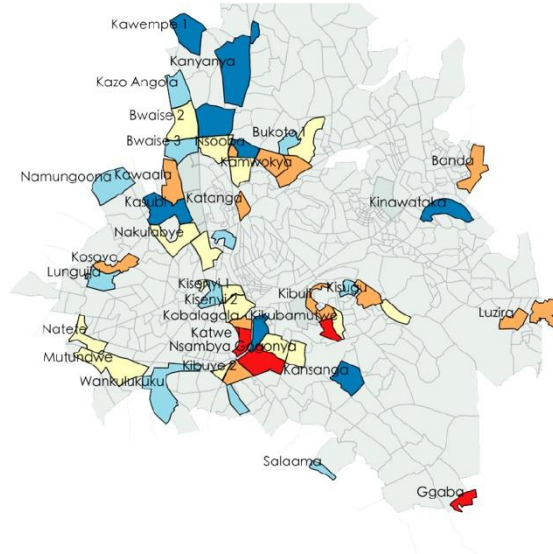
MATERIALS AND TOOLS USED

The following figures show the materials and tools used during the execution of the signage for social inclusion.

Figure 31: Drawing pencils

Source: Photograph taken by researcher

Figure 32: Colored pencils

Source: Photograph taken by researcher

Figure 33: **stick glue**

Source: Photograph taken by researcher

Figure 34: Cutter

Source: Photograph taken by researcher

Figure 35: Soft bristle Brushes

Source: Photograph taken by researcher

Figure 36: Pallet knives

Source: Photograph taken by researcher

SOURCES OF INSPIRATION

The sources of inspiration selected where signage that explore colors, translation, layouts,

directional signage, social issues like religion and church and lastly, graphiti which played a

vital role in communicating about the corona virus pandemic in the Kibera slum of

Nairobi.

Figure 37: **Umeme signage**

Source of inspiration: Electricity warning signage

    Technique: Computer aided design

    Message: Prohibition from risking an electric shock

    Source: Internet

Figure 38: **Environmental warning**

    Source of inspiration: Environmental waste management

Technique: Computer aided design

Message: warning against irresponsible dumping of hazardous waste

Source: Internet

Figure 39: Dangerous road warning

Source of inspiration: Safety sign against dangerous community routes

Technique: Computer aided design

Message: warning against danger of violence

Source: Internet

Figure 40: Cafew
Source of inspiration: Cafew
Technique: Computer aided design
Message: Restrictions on movement due to Cafew
Source: Internet

Figure 41: warning against drug use

Source of inspiration: *Signage Change of lifestyle*

Technique: *Computer aided design*

Message: *information about a no drug or marijuwana smoking area*

Source: *Internet*

Figure 42: child safety

Source of inspiration: *Safety of children*

Technique: *Illustrative drawing*

Message: *keep children safe from possible power shock*

Source: *Internet*

Figure 43: Corona virus

Source of inspiration: COVD-19

Technique: Computer aided design

Message: warning against risk of COVD-19 infection

Source: Internet

Figure 44: Dangerous Road

Source of inspiration: Road signage

Technique: Computer aided design

Message: Caution on dangerous route

Source: Internet

shutterstock.com · 127280732

Figure 45: Dangerous Road

Source of inspiration: *road safety signage*

Technique: *Computer aided design*

Message: *Caution on slippery or rough road*

Source: *Internet*

Figure 46: No dumping

Source of inspiration: *Environmental protection*

Technique: *Computer aided design*

Message: *No dumping*

Source: *Internet*

Figure 47: No dumping

Source of inspiration: *Environmental protection*

Technique: *Computer aided design*

Message: *Warning against improper dumping of waste*

Source: *Internet*

Figure 48**:** HIV

Source of inspiration: *Protection against HIV*

Technique: *Computer aided design*

Message: *Caution about HIV aids infection*

Source: *Internet*

Figure 49: Red Light District

Source of inspiration: *Prostitution*

Technique: *Computer aided design*

Message: *Notification about Prostitutes*

Source: *Internet*

Figure 50**: Graffiti**

Source of inspiration: *COVD-19*

Technique: *Graffiti*

Message: *warning against the corona virus*

Source: *Internet*

APPENDIX F
DEVELOPMENT SKETCHES
Some of the sketches leading to the development of the signage are shown below:

Figure 51: Development sketches
Source: Researcher, 2021
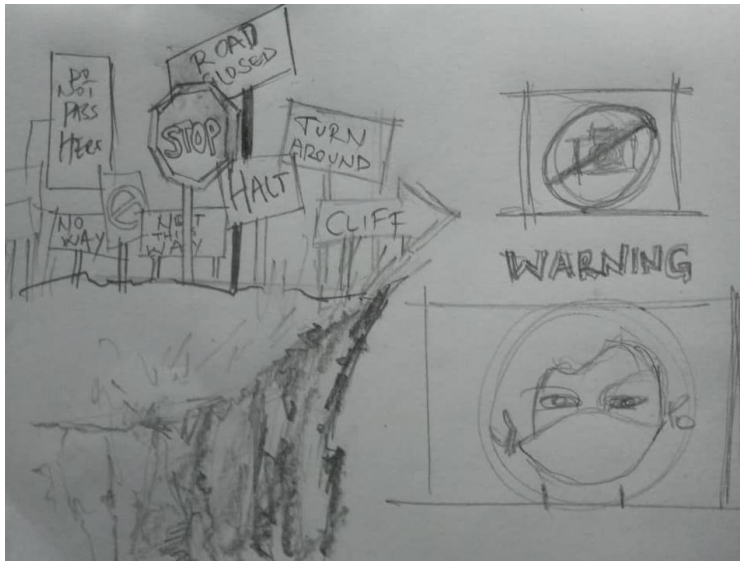

Figure 52**: Development sketches**
Source: Researcher, 2021

Figure 53: Development Sketches
Source: Researcher, 2021

Figure 54: Sketch for graffiti
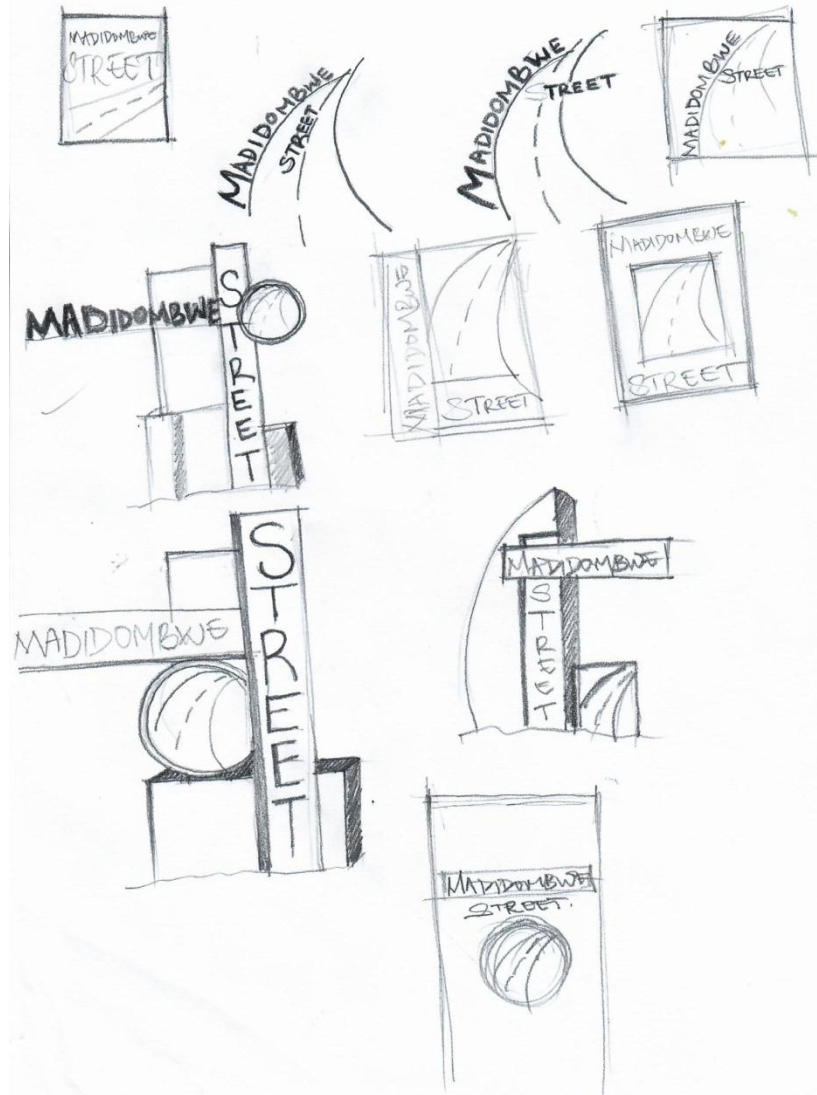**Source: Researcher, 2021**

Figure 55: Sketch for graffiti
Source: Researcher, 2021

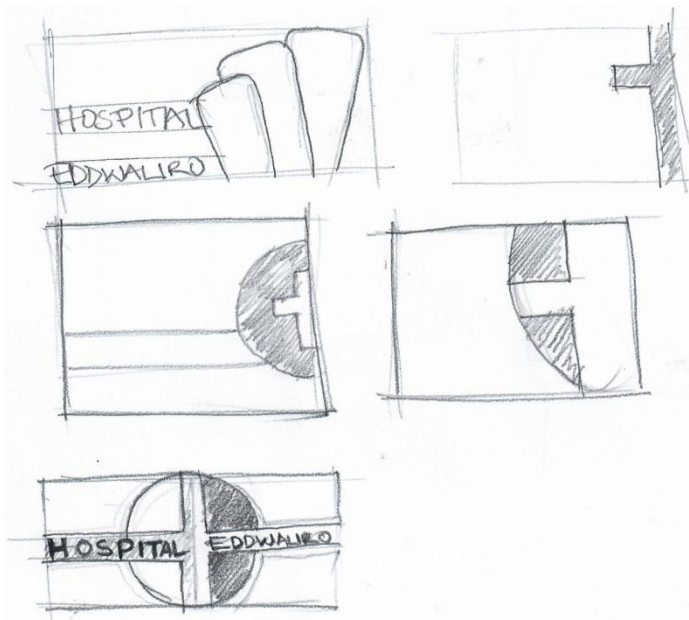**Figure 56: Sketch for graffiti**
Source: Researcher, 2021

Figure 57: Sketch for graffiti
Source: Researcher, 2021