

**PROMOTING HANDWASHING WITH SOAP
BEHAVIOUR IN KENYAN SCHOOLS: LEARNING
FROM PUPPETRY TRIALS AMONG PRIMARY
SCHOOL CHILDREN IN KENYA**

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STATEMENT OF ORIGINAL AUTHORSHIP

The work contained in this thesis has not been previously submitted to meet requirements for an award at this or any other higher education institution. To the best of my knowledge and belief, the thesis contains no material previously published or written by another person except where due reference is made.

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DEDICATION

This thesis is dedicated to my late parents Naaman Olwambula Eshuchi and Sellah Khang'atsi Eshuchi who inspired me to believe in my inherent potential. It is devoted to my wife Carolyne Wanja Obede-Eshuchi; children Joy Ambuchi Eshuchi, Steve Olwambula Eshuchi and Naleen Khang'atsi Eshuchi. May this work inspire our children to work hard and achieve their heart desires.

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ACRONYMS AND EXPLANATION OF TERMS

CHAPS	-	Community Health Awareness Puppeteers
CIF	-	Creative Industries Faculty
DOI	-	Diffusion of Innovations
EE	-	Education Entertainment
ESH	-	Environmental Sanitation and Hygiene
FGD	-	Focus Group Discussion
FPPS	-	Family Programmes Promotions Services
Health Clubs	-	Formed and supported by various agencies including UNICEF. Health clubs focus on the overall well-being of children, comprising physical, emotional, social and mental health of pupils.
HWWS	-	Handwashing with Soap
KNBS	-	Kenya National Bureau of Statistics
KII	-	Key Informant Interviews
M&E	-	Monitoring and evaluation
MoE	-	Ministry of Education
MoH	-	Ministry of Health (was changed to MoPHS)
MoPHS	-	Ministry of Public Health and Sanitation
MoWI	-	Ministry of Water and Irrigation
NESH	-	National Environmental Sanitation and Hygiene Policy
NGO	-	Non Governmental Organization
PET	-	Participatory Education Theatre
PTA	-	Parents Teachers Association
SOPO	-	A multimedia campaign launched by UNICEF in Malawi and Kenya, SOPO is a friendly mascot in newspapers, on radio, on billboards, and in a 13-minute animated short film, to encourage children and their caregivers to wash their hands at critical junctures.
TfD	-	Theatre for Development
Tippy Tap	-	The tippy tap is a hands free way to wash your hands that is especially appropriate for rural areas where there is no running water. It is operated by a foot lever and thus reduces the chance for bacteria transmission as the user touches only the soap.
UHREC	-	University Human Research Ethics Committee

UNESCO	-	United Nations Education, Science and Cultural organization
UNICEF	-	United Nations Children Fund
UNIMA	-	Union Internationale Des Marionettes
USAID	-	United States Agency for International Development
WASH	-	Water, Sanitation and Hygiene
WHO	-	World Health Organization
WSP	-	Water and Sanitation Program
WB	-	The World Bank

ABSTRACT

This study explored what conditions needed to be in place if handwashing with soap (HWWS) initiatives are to be successful in primary schools in Kenya. As part of this project, I have explored participatory HWWS interventions, with a case study of puppetry.

Diarrhoea and upper tract respiratory infections claim the lives of more than four million children each year in Kenya, and are a major health scourge across Africa. Handwashing with soap is a simple, cost-effective and highly effective preventative for these diseases, but "modern communications" campaigns to promote handwashing with soap in Kenya have to date achieved relatively little change in behaviour. The populace largely does not engage in handwashing at critical junctures, such as after using the toilet, etc. In this research, I used a mixed methods approach. The research commenced with a literature review and progressed to interviews and focus groups with stakeholders and a case study of an HWWS in three schools. The case study involved consultation with relevant actors in the school communities, observation of conditions in the three schools, and experimentation with puppetry as a form of health communications that places children as leaders in the process of identifying and overcoming obstacles to handwashing.

The PhD study's immediate goal is to explore what is needed to make HWWS interventions in Kenyan schools successful. The research explored a wide range of conditions that affect the efficacy of such interventions, including as the infrastructure, hardware and software needed within schools for handwashing to be possible in the first place; the policy and bureaucratic cultures that influence whether and how health programs occur within schools; the different actors who have a role in HWWS interventions; the approaches to learning within the interventions (e.g. top-down versus participatory); and factors affecting sustainability. To address my thesis's key goal, I also conducted an experimental HWWS intervention with three Nairobi schools. In those schools, I explored use of puppetry as an approach in communicating hygiene messages with a possibility of adapting traditional media to create a form of interactive, community-driven health communications that can help save children's lives. The longer-term goal is to build a socially viable approach to promoting HWWS that can be employed in Kenya.

In terms of the theoretical approach, I examined diffusion of innovation and social mobilisation theories, as well as community participation; education – entertainment strategy. I applied the theories and concepts during the study to validate data collected. I experimented with puppetry in schools where children themselves were trained in creating puppets, developing health messages and interacting with an audience of school-age peers to come up with community driven solutions. The study examined existing strategies for promoting HWWS and whether they have influenced behaviour change as well as the effectiveness of puppetry to mobilize, promote interactivity and identify possible solutions to the existing problem.

After a series of puppet shows in three Nairobi schools, the children's handwashing behaviour was observed at break times and their handwashing with soap behaviour changes after puppet shows recorded for analysis. Key informant interviews and focus group discussions were conducted with selected opinion leaders involved in the initiative. Handwashing rates during the trials improved to about 50% during the trials. 36 children from the three schools were involved in the participatory workshops. The study indicated that puppetry was effective as a means of promoting health messages in schools, because children prefer approaches that are interactive, provoking, fun and innovative. The approach emphasized importance of children in their affairs and an opportunity to make critical decisions on matters concerning them. The study revealed that potential of puppetry as a communication medium is either underrated or unknown in the community but it promoted entertainment and education.

The research showed that for initiatives to succeed and be sustainable, communities and leaders should be willing to impress change. Implementers need to involve all stakeholders in planning processes, invest in strengthening capacity of teachers and develop structures to support implementation. Involvement of school management and the community, less reliance on donors and the government in favour of increased resolution and contribution from the communities, partnership backed by appropriate policies may promote sustainability of HWWS initiatives.

(Key Words: Puppetry, Handwashing with Soap, Social Mobilisation, Community Mobilization, Diffusion of Innovation, Ethnography).

Chapter 1

Chapter 1 examines work that has been done by key players in WASH sector with focus on HWWS in schools. I define the goal and objectives as well as justification of the study. This chapter sets to establish the importance of handwashing with soap as a life-saving intervention for children and introduces puppetry as a viable approach to promote HWWS in primary schools in Kenya.

1.0 Background

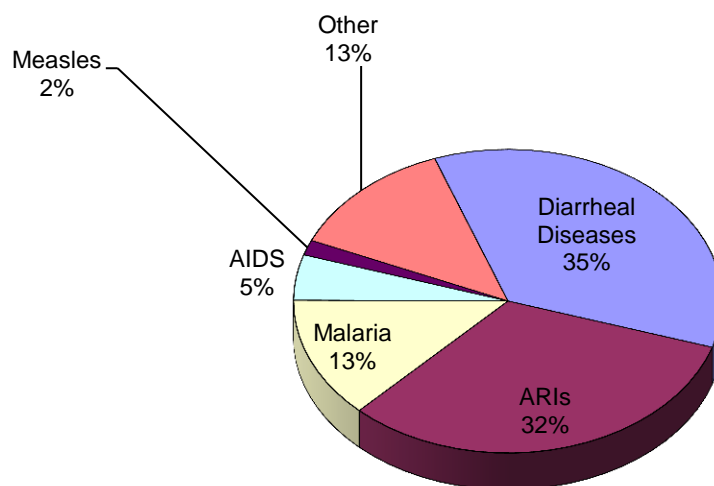
For more than four decades, government and non-government stakeholders in Kenya have initiated hygiene promotion campaigns. One such campaign includes a curriculum – developed by the Ministry of Public Health and Sanitation (MoPHS), the Ministry of Education (MoE), the Kenya Institute of Education (KIE) together with other stakeholders – that has been in use in primary schools on hygiene and sanitation. Handwashing is one of the topics taught in the curriculum.

Non-governmental organizations (NGOs) and community-based organizations (CBOs) have also been working with some schools initiating hygiene promotions projects for the children. The major players are African Medical Research Foundations (AMREF), United Nations Children’s Fund (UNICEF), CARE International, Plan International and World Vision. A number of NGOs and CBOs have adopted and have been implementing Water, Sanitation and Hygiene (WASH) Program, Schools Based Health and Nutrition Program, School Sanitation and Hygiene Education (SSHE) through formation of School Health Clubs, Personal Hygiene and Sanitation Education (PHASE) and Participatory Hygiene and Sanitation Transformation (PHAST) initiative. Hygiene promotion has therefore been an integral part of the school curriculum in Kenya for decades.

All these interventions, though varied in approach and supported by bilateral donors, have aimed to raise awareness of handwashing as an important intervention that promotes health of children by preventing diarrhoea and upper tract respiratory infections which currently claim

the lives of more than 3.5 million children each year in the world (Luby et al. 2005). Studies have showed that handwashing with soap (HWWS) is one of the most effective means of preventing diarrheal disease, along with stool disposal and safe and adequate household water treatment. Evidence indicates that improved handwashing can have a major impact on public health in any country and can significantly reduce two leading causes of childhood mortality: diarrhoeal disease and acute respiratory infection. There are three interventions that attempt to address the transmission of diarrhoeal pathogens: water, sanitation, and handwashing. While each has its merits, no one approach is as effective as when paired with the other two.

Fig 1 - Leading Causes of Child Mortality Worldwide



Source: Luby et al. 2005

Curtis and Cairncross (2003, 275-81) find that handwashing with soap, particularly after contact with faeces (post-defecation and after handling a child's stools), can reduce diarrhoeal incidence by 42-47%. They indicate that washing hands with soap also reduces the transmission of acute respiratory infection by over 30%, even in highly faecally-contaminated environments with poor sanitation. In Pakistan, children under 15 years living in households that received handwashing promotion and soap had a 53% lower incidence of diarrhoea than children living in control neighbourhoods (Luby et al. 2005). A research project conducted among primary school children in Dakar, Senegal suggests that HWWS is a relatively simple low-cost intervention and can have far-reaching effects in improving

children's hygiene practices. This is provided that they take into account motivational factors and children's sensitivities in relation to toilet practice and personal hygiene (Curtis and Sidibe 2007).

In 2006, Kenya's Government with the help of Water and Sanitation Program, a unit of the World Bank (WB/WSP), embarked on a program to develop structures within the Ministry of Public Health and Sanitation (MoPHS) to institutionalise handwashing. In collaboration with UNICEF and other key stakeholders from the private community and public sectors, including media and academic institutions, a national campaign to promote handwashing with soap (HWWS) in Kenya was launched. The first phase focused on primary school children and was launched at the end of 2009. It mainly utilized mainstream media to raise awareness and generate interest among stakeholders. Messages were designed targeting children were delivered through electronic and print media. This included posters, messages on school books, and an animated cartoon character SOPO. Other messages targeted care givers and policy makers.

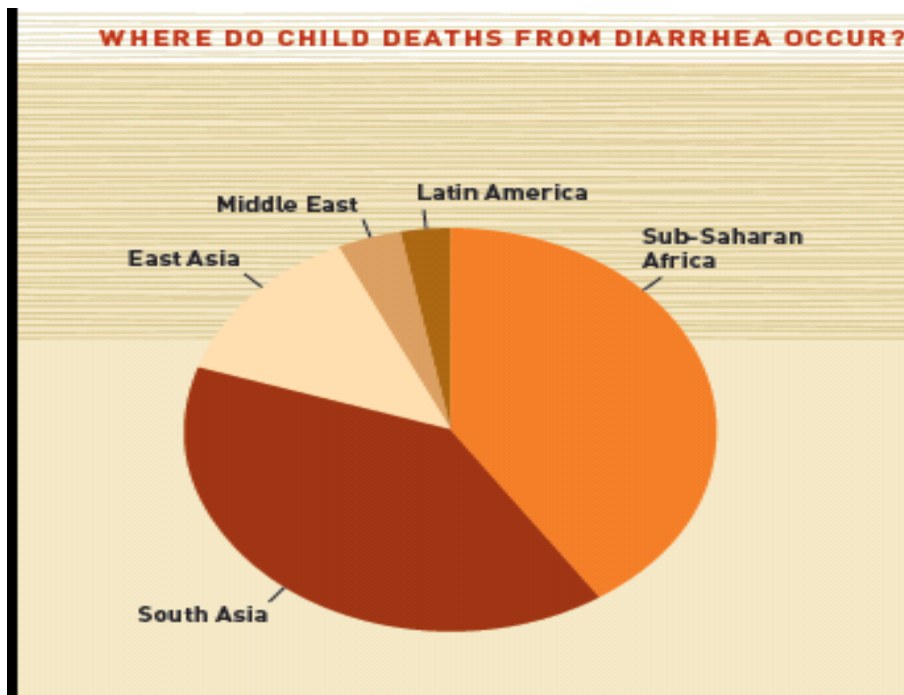


Fig 2: Source: Borrazzo, 2009

The second phase of the campaign by the Ministry of Public Health and Sanitation with support from UNICEF targeted selected schools in UNICEF program areas through interpersonal communication dubbed SOPO School Activations. The current administrative structures within the Ministry of Public Health and Sanitation and Ministry of Education

provide a suitable platform for implementing this program. One of the key approaches of the strategic communication plan was to identify and develop a handwashing brand “ambassador”. Using methodology pioneered in Malawi, the result was the creation of SOPO. SOPO is a friendly cartoon “soap” character who differentiates handwashing from other hygiene and sanitation behaviour, encouraging parents to buy soap for their children to protect them from deadly diseases. The approach focuses on handwashing at four critical times every day (before handling or preparing food, before eating, after visiting the toilet and after changing the baby’s diapers).

SOPO became the unique way of passing the message and helping the audience recall the critical times because of the signature tune that is danceable to and easy to remember. The innovative creation of an object into a friendly, happy character who conveys value-based messages is intended to facilitate easy understanding and enhance top-of-mind recall value as the logo uses a familiar object related to handwashing and cleanliness. Overall, the main objective of the SOPO Communication Initiative is to engage children as SOPO Champions to act as persuaders for handwashing in their families, neighbourhoods and among their peers. It provides an opportunity to children to lead a social change process.

The HWWS initiative coordinated by the Ministry of Public Health and Sanitation set a national target of improving handwashing rates from 1% to 30% as indicated in the Handwashing with Soap Strategic Communication Plan for 2009 – 2011 (MoPHS, 2009). The HWWS initiative involved a set of coordinated activities with different players (UNICEF, AMREF, Plan, WSP/WB etc) supporting government efforts in different geographic locations.

The PhD study’s immediate goal is to explore what is needed to make HWWS interventions in primary schools successful. Review of available literature on HWWS initiatives in schools in Kenya and globally indicates that for HWWS programmes to succeed, several factors have to be considered, These include a policy environment that supports services and activities being put in place; infrastructure to ensure both hardware and software; an approach that ensures participation of stakeholders; coordination and management of resources that are available at school, community and national levels etc.

A key component of this research was the puppetry workshops that were conducted in three Nairobi schools to enable a close up view into factors that affect the communication of hygiene messages. This study therefore builds on existing programs and proposed to use puppetry as one of the approaches for promoting sustainable handwashing behaviour. The focus of this thesis is on handwashing because, as I have indicated, handwashing has been proposed as a simple, cheap and effective measure to reduce the illness and mortality rate (Cairncross 2004). Previous attempts to promote hand washing through modern communications channels have shown minimal success in Kenya. A 2007 survey revealed that only 1% of Kenyan school children washed their hands with soap at critical junctures, i.e., before handling food and after visiting the toilet (World Bank 2009).

The study examined the approaches that have been used in promoting hygiene in schools with emphasis on handwashing. It examined existing strategies for promoting handwashing and whether they have influenced behaviour change. The puppetry approach that I tested emphasized importance of children, their involvement and engagement in their affairs and an opportunity to make critical decisions on matters concerning them. I explored the effectiveness of puppetry to mobilize, promote interactivity and identify possible solutions to the existing problem. After a series of puppet shows in Nairobi schools, the children's handwashing behaviour was observed at break times and their HWWS behaviour level observed following the puppet show and recorded for analysis. Key informant interviews were conducted with selected opinion leaders such as government officials, civil society organization (CSO) workers and other stakeholders directly involved in the initiative. Focus group discussions were organized for the school management. The composition included the head teachers, teaching and any support staff involved in the initiative as well as representative drawn from the parents-teachers association.

Puppetry was chosen for the experimental intervention in this thesis because it has been used to inform and conscientize people through human history in other countries such as India (Ghosh and Benerjee 2006). It is over a decade since puppetry for education, communication and entertainment was introduced in Kenya but it is only recently that development organizations have discovered this medium as very effective and cost efficient in communication, education and entertainment. A number of CSOs have trained or contracted trained puppetry groups to disseminate messages to communities on social issues such as HIV/AIDS, nutrition, family planning, drug abuse, corruption, governance, environment and

conservation, gender violence/abuse, children's rights, etc. Prior to commencing this thesis, I worked for Family Planning Private Sector (FPPS), which subsequently became Family Programs Promotion Services, an organization that trained puppeteers to promote these issues and has been working with communities in Kenya for almost a decade.

Puppet theatre is popular for many, which have been discussed later in this thesis. The Kenyan Family Programs Promotion Services (FPPS) programme emphasizes training of community-based puppeteers. In other words, the themes and issues depicted in the performances of FPPS puppeteers stem from the local community. They are not pre-set messages developed at the national level. This has largely contributed to the success and popularity of the medium because by and large community members identify with the troupes. I will continue working with other agencies that use different approaches but develop the use of puppetry not just to 'pass on' messages but to empower children by promoting broader understanding and behavioural change. The idea is not to develop a 'champion' approach but a complimentary one to existing approaches.

This study has explored strategies for making handwashing with soap at critical times a social norm in places where it is most needed - schools. School is one of the few stable channels through which communities can be accessed. In most communities, school children are also carers at home and thus can influence home health by taking ideas and behaviours home that could possibly influence parents and younger siblings. Students are also future parents and parents' aspirations – beyond day-to-day survival – in a developing market context are often heavily tied up with their children's lives being better than their own.

The program's immediate aim is to explore what will make HWWS promotions successful so that they can help to save children's lives. The longer-term goal is to build a socially viable approach that can be employed in both urban and rural areas, regardless of language skills, physical frontiers, or racial, social, or political barriers. Following completion of my PhD, I intend to do further work on developing the use of puppetry as a medium that communities can adopt or adapt themselves to help bring numerous kinds of social and economic changes.

In 2007, the then Ministry of Health with assistance from WSP, WHO and UNICEF developed the National Environmental and Sanitation and Hygiene Policy (NESHP) to guide interventions by partners related to hygiene and sanitation. The policy recognizes the

importance of investing in software as well as hardware. Over the years, more resources have been pumped in hardware without considering that change of behaviour is a critical factor if the country has to attain the MDG related to sanitation and hygiene by 2015. In Chapter 8, my thesis discusses in detail how policy approaches can be understood and probed in the context of the findings relating to the possibility for participatory engagement within schools. It exposes how policy and citizen engagement can mutually reinforce each other, creating more powerful outcomes than one or other alone.

It is notable that there has been a policy shift in the approach to implementing hygiene and sanitation initiatives. Led by the government of Kenya, partners implementing WASH programmes in Kenya have adopted a social mobilisation approach in most of the school-based activities. Involvement of community and other stakeholders, points to the realization that government or donors alone cannot solve the gigantic problems the country is facing to enable the populace gain access to improved sanitation.

A Public Private Partnership (PPP) approach is one major policy shift that points to importance of pooling resources and expertise from all sectors including the civil society organisations. The stakeholders in sanitation and hygiene in Kenya realized that both the private and public sector have a role to play to improve the lives of Kenyan children. The private sector's role is no longer seen as a corporate social responsibility but a social investment where all parties gain from the resources they contribute to this course.

1.1 PROGRAM OF RESEARCH AND INVESTIGATION

1.2 Research Problem

There are several factors that either contribute to the success or act as obstacles to implementation of HWWS programs in primary schools in Kenya. Policy environment, resources, effective coordination of stakeholders, availability and adequate hardware and software (e.g. handwashing devices, water, soap, promotional materials etc) are some of the factors this study has explored in subsequent chapters. Key stakeholders from the public sector and civil society organization involved in HWWS initiatives I interviewed were able to contribute information that is able to indicate what needs to be done in order to implement successful HWWS initiatives. The in-depth interviews and focus groups discussion similarly

revealed challenges that implementers of HWWS initiatives need to consider in their effort to deliver successful programmes.

A major factor in a successful HWWS promotion program is the approach used in communicating handwashing messages to children. Observing that most mediums used to communicate hygiene messages to children are not interactive, I set up puppetry workshops in schools as a means for observing and testing the effectiveness of an approach that was both highly interactive and participatory. Children interviewed in Kenya (World Bank 2009) and Senegal (Curtis and Sidibe 2007) said that most of the activities do not give them an opportunity to express their opinion on why and how they should participate in hygiene initiatives. FPPS, a Kenyan NGO that has pioneered puppetry programmes in Kenya, has explored viability of puppetry in the communities and successfully used it with adults to address HIV/AIDS, reproductive health and other development and social issues such as corruption, democracy, environmental conservation, etc. So far, no agency has explored the use of puppetry to address handwashing with soap.

FPPS has trained a number of teachers in private and public schools in Kenya. However due to lack of clear work plans and support, the teachers have never established troupes in their respective schools to use these strategies in an ongoing way. This PhD study developed those fledgling efforts. It offered the children a platform from which their voices were heard while tapping into the existing resources that already abound in the schools (both materials and human resources as seen in experience of teachers in running health clubs). The teachers trained by FPPS were identified and approached to form puppetry troupes as a continuing presence in all three schools that took part in my research since they had previous experience with puppetry performances but none of them was active four years after FPPS trained the teachers. During the puppetry workshops interactive puppet shows were prepared and presented to the children in the schools.

1.3 Key Research Questions

This study's central question was: What is required to make handwashing with soap interventions work in schools in Kenya? What factors enable implementation of an effective programme in the schools?

Besides examining environmental factors affecting HWWS implementation (such as infrastructure, policy environments, relationships between actors, etc), I wanted to explore

the impact of participatory approaches. In particular, I wanted to see the impact of methods that place the children not just as learners but as drivers of the process, thus the experiment with puppetry.

Sub-questions included:

Infrastructure

- i. How does the school environment influence or shape the handwashing behaviour of children?
- ii. What infrastructure (hardware) needs to be in place to promote HWWS?
- iii. What is the ideal location for HW stations?
- iv. What kind of software would promote HWWS?
- v. How can school management ensure there is water and soap in school?

Policies and Actors

- i. What policies need to be in place to promote HWWS in schools?
- ii. What role should the community play?
- iii. What is the role of the relevant government departments?
- iv. What is the role of civil society organizations?
- v. What is the role of school health /environmental clubs?

Approaches

- i. What other mediums/approaches have been used to promote HWWS in the school?
- ii. How was the HWWS messages presented?
- iii. Who has been involved in promoting HWWS activities?
- iv. How long has the approach been used to promote HWWS?
- v. What process was followed to introduce this approach?
- vi. Was the process participatory?
- vii. How appealing is puppetry in comparison with other approaches in promoting HWWS?
- viii. What makes puppetry different from the other approaches in promoting HWWS?
- ix. Is puppetry a viable approach to promote HWWS for school children?
- x. What would make puppetry successful in promoting HWWS?

Sustainability

- i. How can we make puppetry sustainable in schools?
- ii. Can this project be replicated elsewhere and scaled-up?

Challenges

- i. What challenges exist in the use of puppetry for health/hygiene promotion?
- ii. How can we overcome the challenges?

In the process of answering these questions, I used a multi-methods approach. I reviewed literature that illuminated on many other issues that would make a handwashing initiative succeed. Aided by six research assistants, I observed the children's handwashing habits during meal breaks at the three Nairobi schools that participated in my research project, and this informed my learning on key handwashing behaviours. Stakeholders too offered their opinions and experiences during interviews and focus group discussions that I found valuable. Experience gained prior to commencing this thesis, when I worked as the National Handwashing Coordinator for a World Bank supported programme in 2006 to 2009, are reflected in the study.

1.4 Thesis Structure

This thesis is structured in ten chapters. Chapter 1 provides the background to the problem being addressed in my study. I explain why implementation of handwashing with soap in schools is a challenge and what is being done by various stakeholders to address the problem. This chapter enables the readers to understand the problem from a Kenyan school perspective, structures put in place by the Kenyan Government and World Bank's Water and Sanitation Program to institutionalise handwashing and support HWWS initiatives, and what more needs to be done for the HWWS programme to succeed.

Chapter 2 defines the research methodology. The study protocols, including tools and data collection methods, are clearly spelt out and study participants identified. The study's ethical considerations (including potential risks and health concerns) are outlined and roles and responsibilities of all the stakeholders involved are defined.

Chapter 3 explores approaches that are commonly used in the interventions and social mobilisation that promote behaviour change and/communication for social change. In

particular, it explores Diffusion of Innovations (DOI) theory and how it relates to behavioural change as well as social mobilization concept as well as theories on Entertainment Education. Chapter 4 delves into existing body of literature on handwashing. Evidence from existing literature indicates that initiatives focusing on hygiene promotion are the most cost-effective way of reducing diarrhoeal disease amongst children. This chapter hence provides compelling evidence of the need for the type of research conducted in this thesis.

Chapter 5 introduces the puppetry approach and how it has been used to address other health and social issues in Kenya. The chapter goes beyond explaining about puppetry and describes how it was applied integrating other genres in a participatory way.

Chapter 6 explores factors that will enable a handwashing with soap initiative to succeed in school environment. The chapter commences with a discussion of the conditions of sanitation facilities in Kenyan schools and how this may promote or hinder handwashing with soap behaviour. I then explore what programmes and activities in schools have been seen to promote handwashing with soap behaviour and reflect on how the initiatives help to develop the children competencies in health.

Chapter 7 analyses data collected during the study period in the three participating Nairobi schools and is structured in three sections. The first section reports the outcomes of basic observation research of schoolyard behaviours. Section 2 outlines the discoveries made through contextual inquiry, via interviews and focus groups. Section 3 discusses the findings of the participant observation of the process of introducing puppetry into the schools to promote HWWS into the schools.

Chapter 8 examines the policy environment related to WASH initiatives in schools in Kenya. I examine measures the government needs to put in place to ensure HWWS initiatives in schools operate under an environment that is backed by policy as well as role of all sectors in facilitating this.

Chapter 9 identifies key issues that facilitate and motivate the Kenyan child to wash hands with soap. The chapter concludes the study and summarizes key findings and how they fit in the studies context.

Chapter 10 explores a range of issues covered in the study. The chapter focuses on recommendations based on the study findings that may guide future action, policy implications as well as areas of further research.

Chapter 2

Research Methodology

2.0 Introduction

Chapter 2 defines the design of the research and methodology used for my PhD study. The Chapter summarises the key findings of the study besides exploring a number of methodological approaches of data collection. I employed methods such as observation, focus group discussion and individual informant interviews for these purpose. All these methods have their advantages and disadvantages but the significance of using them in this study was to ensure each methodology complimented weaknesses that the other may have.

2.1 Design of the Research

Data gathering approaches were based on the social mobilisation approach (discussed further in Chapter 3). Between December 2009 and September 2010, I made visits in the field to conduct three key activities:

- to carry out secondary literature review based on information that was available within government agencies, development partners and other stakeholders involved in hygiene promotion interventions;
- mapping exercise of partners and carry out preliminary sensitization meetings with key partners in the public and private sectors, development partners and civil society. This was an advocacy exercise aimed at lobbying for support of these key partners; and
- to identify possible schools and community partners and hold preliminary discussions on the proposed interventions.

During the mapping exercise, I made initial contact with the following offices in Kenya:

- Ministry of Education and held initial discussion to informally share information about my project and its importance and relevance to policy issues. I explained

that I will be seeking permission to work with four schools and required the ministry's support.

- Ministry of Public Health and Sanitation as the lead agency implementing hygiene and sanitation initiatives. MOPHS played a key role in approving and endorsing my PhD study. During the mapping period, the ministry informally gave me a nod to proceed with the study pending ethical clearance from QUT.
- Family Programmes Promotion Services formerly Family Planning Private Sector (FPPS) pioneers of puppetry in health education in Kenya. FPPS was happy to work with me on the project and pledged to provide information on the trained teachers and institutions that eventually helped me pick my sample for the study.

The three institutions visited provided secondary data that was useful for my literature review later in the study. I used this period to sensitize potential partners and mobilise their support. Most of the stakeholders I contacted showed enthusiasm and willingness to provide support to the project besides the study results. The public sector partners in principle endorsed the research.

I also notified the Ministry of Public Health and Sanitation in whose mandate all the public health activities fall that I wished to conduct observations and a puppetry intervention in four schools. During my initial visit to the field December 2009 to September 2010 for the mapping exercise, I discussed protocols for identifying the participating schools with MoPHS officials. The selection criteria included but not limited to an existing Health Club in the school, availability of basic sanitation and handwashing facilities, running water or mechanism to ensure there was water in the handwashing facilities and the school management willingness.

Using this criteria, four schools were selected to participate in the observation research of schoolyard facilities and HWWS behaviours plus the puppetry intervention. Two schools were from peri-urban Nairobi while the other two were identified among the upper/middle class suburbs. The schools from peri-urban were Toi Primary, a public school in the heart of Kibera slums (the largest informal settlement in East and Central Africa) and Boonhouse, a private school located in Ongata Rongai, the outskirts of Nairobi city serving underprivileged children from the informal settlement. A third school was recruited from the upper middle-

class suburbs, this being Premier Academy, a private high class school located in the plush Parklands. Westlands Primary School, a public funded school located in the leafy suburb of Westlands, was initially included as a fourth participating school. However, the school dropped out prior to commencement of the puppetry activities due to the national teachers' strike that took place in Kenya in August and September 2011. The teacher in-charge of the health club was a leading official in the teachers' union and was unable to continue supporting the puppetry activities because of his added responsibilities as a unionist

Before children in schools could be invited to participate in the research, details about the project had to be passed from the Chief Health Officer to a long line of bureaucrats and school officials.¹ Thereafter, all the primary data with these three school communities and other stakeholders was collected between September and November 2011. During this key period of data gathering, the specific methodologies that I used were:

- I conducted 12 Key Informant Interviews (KII) with stakeholders drawn from the following institutions – MOPHS - 2, MOE - 2, MOWI- 2, WB - 1, UNICEF - 2, PATH - 1, Child Africa Media – 2. The officials had been approached during mobilization period and made aware of the project and their expected support. The institutions/organizations were encouraged to nominate an officer who represented their interests in this project. The officer was encouraged to attend some of the activities especially the performances. By the time the interviews occurred, the interviewees had to have watched at least a puppetry performance or directly been involved in community mobilization activities.
- Nine Focus Group Discussions (FGDs) composed of 18 participants drawn from school management (teachers, parents and support staff – 6 per school); children (puppeteers) composed of 30 participants in 3 groups of 10 members each; children (audience) – 30 participants in 3 groups of 10 members each.

The FGDs were conducted within the school while the key informant interviews with the officials were conducted in their respective offices between November to December 2011. The purpose of the FGD and KII helped to answer the key research question. All those interviewed provided feedback regarding factors that contribute to effective HWWS initiatives in school.

- I conducted observations of school infrastructures and conditions of the facilities as well as the number of children who visited the toilets during food breaks. Location of the facilities from the classrooms and distance between the toilets and the HWWS facilities.

I was assisted by six volunteer research assistants who each had a background as trainers/facilitators of puppetry workshops aimed at promoting health messages. Two assistants were discreetly stationed near the handwashing facilities in each of the three schools, where they observed and recorded children's handwashing behaviour after using the toilets. My research assistants (discreetly stationed near the HW facilities) observed and recorded the number of children who washed their hands after visiting the toilets. A total of 2205 visits by children were observed in the three schools and notes were taken of whether or not the children washed their hands following these visits.

The purpose of observing both the children and the facilities was:

- To try and understand how location and state of the facilities influence their use. The study sought to find out other variables that would either promote or hinder handwashing practices. These variables included number of toilets for boys and girls; total population of the school; proximity of handwashing facilities to the toilets; number of handwashing stations; type and state of the toilets; and availability of water and soap at the facilities; and
 - how the children washed hands after watching the puppet shows in an effort to determine if the puppetry workshops influenced their behaviour.
- Puppetry workshops were conducted in the three schools. Twelve children per school aged between 8 and 12 years old were selected. The whole puppetry workshop process from selection to performances took twelve weeks between September and November 2012. The goal was to engage the children in order for them to learn puppetry skills (construction and manipulation); develop script with messages that promote HWWS behaviour and facilitate performances. The activity helped me to understand children's behaviour regarding HW after watching the puppet shows.

Table 2.1 – Methodology in Schools

Participating Schools	Number of children per school	Number of FGDs held in schools	Number of participants in FGDs	Number of days that observations took place of facilities	Number of toilet visits observed	Number of participants in Puppetry Workshops	Number of hours involved in puppetry training, creation, presentation
Boonhouse	1341	3	36	8	986	12	28
Toi	1156	3	36	8	850	12	24
Premier	502	3	36	8	369	12	20
TOTAL	3001	12	108		2205	36	72

I focused on primary school-going children for this PhD because I consider them a special target group. School-age children are less entrenched in age-old practices than adults, and often far more eager to change, they are role models for young siblings, with considerable potential to influence their behaviour. Research indicates that children are also proactive in attempting to influence their parents and other relatives as well (Karama 2011, 5). Given the low levels of education in Kenya, information and behaviours taught to children through schools are often treated with considerable respect by parents and other adults within the schoolchild's circle, who may adopt such practices as well. Furthermore, since habits acquired while one is young are likely to be carried over to adulthood, intervention in handwashing behaviour would have a ripple effect for future generations. They are the beacon of hope, beacon of health. Handwashing with soap is part of the concept of hygiene, which forms part of the social studies syllabus in primary schools. Children are a captive audience within schools, given that they spend most of their active hours in a school environment. Schools provide a ready network for reaching children with handwashing messages. If school children can be sold on the practice of washing their hands, they may carry it through their lives and pass it to their children, thus being an important stimulus for sanitation and hygiene promotion in their households and community at large. This research

recognises, however, that school children may have different motivators and barriers to handwashing than other groups, and it aims to identify and be sensitive to the characteristics that make them responsive or otherwise to health messages and behavioural change.

The design of this study is based on the following:

2.1.1 Interviews

Semi-structured interviews are the most common type to be used in naturalistic inquiry which uses a guide to set the basic questions but the order and exact wording is left open (Erlandson et al. 1993, 86). Most interviews are a mix of both structured and unstructured elements, as the topic of discussion is established by the interviewer, who then ideally manages the interaction with flexibility and adaptability (Gillham 2000, 3). Gillham describes the structured interview as the format for administering surveys; the semi-structured interview as including both open and closed questions; and the unstructured interview is limited to just a small number of open questions (2000, 6). The unstructured interview is problematic as it requires a great deal of preparation, can be very time-consuming and can place undue expectations on the interviewee (Mangen 2007, 27). In my PhD research, semi-structured interviews were conducted with 12 selected opinion leaders such as government officials, civil society organization workers and other stakeholders directly involved in the initiative.

Lincoln and Guba state that naturalistic inquiry usually begins with interviews, which enable the subsequent scheduling of observations and collection of data (1985, 240). My research did not, however, follow this standard pattern. During the initial visit to Kenya in December 2009 and September 2010, I held preliminary discussions with government and civil society organisations to mobilise and gain their support. However, although these discussions were important in helping me to design my puppetry intervention, the interviews that informed my data collection process are cited in later chapters were conducted after the puppetry shows. I wanted the stakeholders to experience the performances and provide feedback on both the process and the impact of the puppetry performances. I interviewed mainly technical officers from the organizations mentioned earlier who are directly involved in implementing WASH initiatives.

In common with a process described by Lincoln and Guba, interviews I conducted commonly commenced with simple and personal questions to relax the interviewee and establish rapport (Lincoln and Guba 1985, 279). This is followed by “talk turn”, concluding with a process of terminating the interview in a way that wraps up and allows closure (1985, 271). I used this strategy when I interviewed two officials each from the following organizations: Ministry of Education, Ministry of Public Health and Sanitation, Ministry of Water and Irrigation, United Nations Children Fund, the World Bank and Child Africa Media, a civil society organizations involved in WASH in schools sector.

In qualitative research, there is a search “patterns, themes, categories and regularities” (Cohen, Manion and Morrison 2000, 147) in the material gathered from participants. This means that careful selection of informants is important, because “the striking or insightful observation of a relatively few informants may be qualitatively more important than the weight of what most said, if that insight demonstrates a usefulness to better understand the phenomenon at hand” (Vallance and Lee 2005, 5).

Iorio describes a focused interviews as a useful way to “elicit in-depth responses and identify commonalities among the replies that people give” and “uncover accurately how a group of interviewees understand a problem or what they believe about a certain topic” (Iorio, 2004, 109). Weerakkody warns researchers to be aware that research interviews can often be “contaminated” by bias from interviewers that is evident in what they say or how they act, and by the “social desirability effect”, which may lead to interviewees “trying to make themselves sound good or trying to give opinions they think the researcher wants to hear” (Weerakkody, 2009, 177). Roulston notes that data is to be viewed as ‘accounts’ rather than being directly reflective of reality, and interviews are to be seen as co-constructions between the interviewer and the respondent through the talk process (2010, 60).

2.1.2 Puppetry Teams Selection and Training

The puppetry intervention fitted into the category of ethnographic research (See Section 2.2 below.) In this phase, puppetry teams composed of school children aged eight to 12 years old were constituted and trained to construct and manipulate puppets in three schools. Together with the researcher, the 12 children in each of the three schools within Nairobi city developed puppetry scripts with key messages on handwashing.

After the headmasters at the three schools had agreed to participate in the research, I visited each of the schools to explain to the potential participants drawn from the 'Health Clubs' what the project was about and what their participation would entail. In consultation with the patrons of Health Clubs, I recruited the volunteers through a system and criteria that was set up jointly with stakeholders involved. These criteria included the student's age, interest in performing, previous work with school health club, etc. Teachers asked the interested children to sign up. As only 12 children were required, it became necessary to devise a process that guaranteed fairness. The children devised a game that was played in two groups (boys and girls separately to ensure gender balance). All the Health Club members who had expressed interest participated in the game, and the 12 who sailed through won a place in the puppetry workshop. Those who lost were asked to participate as audience members during performances as well as participate in the FGD.

Participating children were trained on how to facilitate the shows and discussions. After training, the troupes performed the shows for other pupils under my supervision or my research assistants who are puppetry trainers twice a week for two weeks. The three puppetry trainers/research assistants volunteered to support my project during my initial contact with FPPS. They are experienced puppetry trainers/facilitators currently involved in community programmes being implemented by FPPS. They largely worked with the children in the three groups to construct and rehearse with the children after developing scripts for the puppet shows. See Section 7.3.3 for a detailed discussion of how training took place, what children did during the puppetry workshops and how the process benefitted them. The resulting performances were interactive to ensure children discussed issues around handwashing with soap, examined the motivators and obstacles surrounding the practice and came up with practical solutions. During this period, the assistants and I observed the impact of these performances on the children's HWWS behaviour using the instruments to guide the observation process developed (see appendix 2: 'CIF Project Risk Assessment').

Family Health International defines behaviour change communication as an interactive process with communities (as integrated with an overall program) to develop tailored messages and approaches using a variety of communication channels to develop positive behaviours; promote and sustain individual, community and societal behaviour change; and maintain appropriate behaviours (Family Health International 2002). Puppetry fits in this as a

possible channel that can disseminate well-crafted messages, promote and sustain positive behaviour.

After the puppetry workshops and observations, I conducted validation meetings in all the three schools. As the observations were conducted during the same period, it was not possible for me to supervise the assistants then. I took time to hold informal meetings with the Health Club patrons and the school management to cross check some of the information recorded. There were no significant variations from what the observers had recorded. The cross checking included school population, number of toilets, types of structures and times the workshops and observations were conducted. All the information tallied with what was recorded.

It is interesting to note Hollway and Jefferson's observations about narrative interviews, which move away from a traditional approach of questioning and expecting 'answers' (2000). In the narrative interview, the interviewee is viewed as a story-teller or narrator and "the agenda is open to development and change, depending on the narrator's experiences" (Hollway and Jefferson 2000, 31). This strategy is used when researchers need a deep understanding of their research subjects (Hollway and Jefferson 2000, 32). While the ethnographic approach of the puppetry workshops were not "narrative interviews" in the normal sense, the workshops involved processes that were very similar to what Hollway and Jefferson describe, Children created scripts with stories, poems and songs that communicated messages on hygiene. There were no straight answers expected when narrators/facilitators asked the audience questions but in the process of the performances, all those involved by consensus agreed on action points.

2.1.3 Focus Group Discussions

I also conducted focus group discussions for the school management. The composition included the headteachers, teaching and any support staff involved in the initiative as well as representative drawn from the parents-teachers association. Selected children not involved in the puppet shows were be invited to take part in a focus group discussion and interviewed from their perspectives as audiences of the puppet shows.

1. Puppetry workshops involved 36 children, each aged eight to 12 years old.

2. I invited 30 members of the school management, ten from each school (including a member of the parents-teachers association) who participated in the focus groups per school.
3. 36 audience members, i.e. students from the three schools who did not take part in the puppetry activities but watched the shows were invited to participate in an FGD to give their views.

See Table 2.1 for details.

FGD is a widely used methodology in recent times mainly because of its strength of convenience, economic advantage, high face validity, and speedy results (Boateng 2012, 54). FGD can also provide the necessary enlightening and conceptual tool to enable participants to relate well to the discussion topic, and not necessary be swayed or influenced by groupthink. FGD is a methodology that encourages participants to spark ideas off one another, suggesting different dimensions and nuances of the original problem that any one participant might not have thought of. Sometimes a totally different understanding of a problem emerges from the group discussion (Boateng 2012, 55).

2.1.4 Observation Research in Schools

As mentioned in Section 1.1, the PhD study's immediate goal is to explore what is needed to make HWWS interventions in schools successful. The study also explored use of puppetry as an approach in communicating hygiene messages with a possibility of adapting traditional media to create a form of interactive, community-driven health communications that can help save children's lives. Puppetry as a communication medium has many advantages (see Section 5.3 'Why Puppetry in Kenyan Schools?') and this study explored its viability and effectiveness in promoting HWWS.

My thesis does not attempt to find quantitative proof that puppetry programs in schools is the "solution" for improving rates of handwashing with soap, or that rates will increase by X percent once a puppetry program is introduced. Instead, the thesis goal is to ask:

- (i) what the infrastructure, hardware and software needs must be addressed before handwashing can be expected to become regular practice in schools, and
- (ii) what factors need to be considered when designing, organising and including stakeholders in handwashing-promotion programs in schools so that children and

school communities are motivated to prioritise, facilitate and practice handwashing with soap.

The puppetry trial was conducted for purposes of exploring the second qualitative question.

Two observers were positioned in the compounds of the three participating schools to record cases of handwashing with soap among the children at meal break times during this period. As Table 2.1 indicates, my research assistants observed a total of 2205 visits by children to school toilets, and they took notes of whether the children washed their hands or not after these visits. To be able to measure the impact of the intervention, I should have also observed the handwashing cases in the pilot schools before the puppetry workshops. Unfortunately, I overlooked that critical stage and my project design did not include a “before and after” count of the frequency of handwashing in the schools. Instead, there was only a count of “after” rate, ie following the performances.

While this is a limitation of the research, I did take several measures to allow some degree of “before and after” comparison. The recorded cases of handwashing from the three schools were compared with the World Bank baseline study published in 2009, which found that 1% of Kenyan school children washed their hands with soap before handling food and after visiting the toilet (World Bank 2009). Karama’s (2011) study supported by Unilever Kenya to assess the effect of “The School of Five” found out that handwashing rates in schools that participated in the programme was 12% in 2011.

My qualitative research from stakeholders indicate that prior to my puppetry intervention conducted, the levels of HWWS in Toi, Boonhouse and Primary would have been similar to those observed in the baseline study published in 2007. Teachers and school management who were interviewed or participated in focus groups during this PhD study indicated that handwashing rates were low in the schools prior to the puppetry intervention and a lot needed to be done to promote HWWS practice. Teachers interviewed expressed concern prior to the puppetry intervention that handwashing rates had not improved despite campaigns in place and were still lower than the 30% targeted by the government. Teacher’s observations revealed children were not washing hands with soap after visiting the toilets or just rinsed hands in water. Teachers reported that children required constant reminder to wash their hands with soap at critical times even when water and soap was placed outside the classroom.

It is not possible to attribute the increase noted in the childrens handwashing with soap behaviour to the puppetry performances as being purely due to my PhD intervention, because there are othe initiatives that have taken place between 2007 (after the National Baseline) to the time of this study. To overcome this, I also sought evidence from other studies of the frequency of HWWS in schools to compare against the figures that were found following the puppetry intervention such as Karama (2011).

Instruments to guide the observation process were developed and used (see Appendix 1: ‘Participant Information/Consent Forms’). While interviews allow researchers to ask about the past, present and future, observation provides the researcher with in depth information about current conditions (Lincoln and Guba 1985, 273). Observation allows the researcher to record “those elusive internal states that underlie what people do, and of which they may not be fully aware” (Gillham 2008, 18). Lincoln and Guba note that the form of observation can change over time from being unstructured and focused on immersion and tacit knowledge to more focused observations (1985, 275).

2.1.5 Health and Safety

This project was also designed to minimize the risks to the children and the research team. Fortunately, I have worked with school children before, as have all the professional puppeteers who might potentially become research assistants, and thus we understand research ethics, methods and safety considerations. Craft equipment was used during the process of constructing the puppets. Some might have posed limited hazards if they were not handled with care such as scissors, sewing kits and glue. Due diligence, supervision, personal attention and care were observed during the construction session to ensure appropriate handling and minimize risks.

2.2 Ethnography

In an effort to understand the children, this study focused on participant observation methodology as part of ethnographic research. Nerburn (1998) in the quotation below captures the heart and spirit of ethnography. In silence we “*hear*” the sounds and stillness “*shifts*”. This reveals how ethnographic observation can reveal what is not visible unless one

summons all the observation power, digs deeper and listens to the inner voices and the unspoken word in order to deduce what may be happening in the community.

We cannot find our lives in weights and measures. Microscopes and telescopes increase our context, they do not find origins or conclusions. Like the spirit we brought to this land, they probe, they examine, they explore. *Meaning*, they proclaim, “is beyond our vision. Truth is below our sight.” But there is a research of a different sort. It does not move, it does not seek. It watches until stillness shifts or silence makes a sound. It drinks in a universe whose origin and every manifestation is alive, and whose every movement demonstrates its laws. That which exists beyond our boundaries is not unknown, it is simply not revealed. (Nerburn 1998, 97).

“Ethnography is the study of social interactions, behaviours, and perceptions that occur within groups, teams, organizations, and communities. Its roots can be traced back to anthropological studies of small, rural and often remote societies that were undertaken in the early 1900s” (Reeves et al. 2008, 513). The central aim of ethnography is to provide rich, holistic insights into people’s views and actions, as well as the nature (that is, sights, sounds) of the location they inhabit, through the collection of detailed observations and interviews. Tedlock (2000, 455-456) similarly notes that “a key assumption has been that by entering into close and relatively prolonged interaction with people (one’s own or other) in their everyday lives, ethnographers can better understand the beliefs, motivations, and behaviours of their subjects than they can by using any other approach”.

As Hammersley states, the task of ethnographers is to document the culture, the perspectives and practices, of the people in these settings. The aim is to ‘get inside’ the way each group of people sees the world (Hammersley 2007). Ethnography is one of the oldest methods of social research (Hammersley 2007). It is a research technique located in the practice of both sociologists and anthropologists, and should be regarded as a cocktail of methodologies that share the assumption that personal engagement with the subject is the key to understanding a particular culture or social setting. Ethnography is a systematic and distinctive approach of data collection, drawing on a wide range of sources of information and using different techniques.

Fundamentally, the term "ethnography" involves the description and study of human cultures. Social scientists use it to understand other ways of life from the native's point of view. Ethnography originates from anthropology where anthropologists spend significant periods of time with local people making detailed observations of their practices. Traditionally, ethnographers such as Margaret Mead focused on the study of cultures thought to be primitive. But today ethnographers study more familiar groups and cultures such as do-it-yourselfers, teenagers, retail shoppers, mobile phone users, (Sanders 2006, 1).

Ethnography is recognized today as a new form of consumer research that is useful in uncovering and identifying emerging and unmet customer needs. Although it is not a new scientific technique, the application of ethnography to the new product development (NPD) process is relatively recent (Sanders 2006).

Because it draws from a range of research methods, ethnography is more of an approach than a defined research method. The overall term and technique includes observations, interviews and the documentation of "traces" that people leave as they go about their everyday lives. An example of traces from our own culture would be Post-It notes. Ethnography comprises a very in-depth form of qualitative research, which is also referred to as ethnographic field work. Ethnographic field work includes elements of other types of research such as contextual inquiry, observational research and participant observation. Contextual inquiry is a form of ethnography that is specifically focused on asking questions. It is contextual, in that the asking of questions takes place in the natural environment of use. (Sanders 2006, 1)

Sanders (2006) says observational research entails simply watching users in their environments, without asking questions about why or how things are being done. By contrast, participant observation is a more intensive form of observational research that focuses on the researchers joining the culture being studied in order to better understand that culture.

Sanders definition fits very well with this study's approach and application of ethnography. My approach has heavily relied on three techniques – observation, interviews and exploring the traces that may serve as pointers in children's life in relation to handwashing with soap in

schools without necessarily delving deep in their culture as participant observers but through observational research.

This research may easily be mistaken for action research, given that it explores how grass-roots levels of communities may be engaged in reflecting on their circumstances and resolving problems. However, it is important to note that the research does not involve the process that is critical to action research, i.e. a spiral of steps, each of which is composed of a circle of planning, action and fact-finding about the result of the action.

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As a researcher, I was engaged in the ethnography in a highly participatory way, due to the very nature of the puppetry workshops that required hands-on engagement with school students in addition to observation (ie engagement in the form of showing students how to create puppets, develop plots for puppet shows, strategies for puppeteers to respond to audience feedback, etc). However, the participatory element does not turn this thesis into action research or participatory action research. As Guenzik (2003) notes, one of the keys to ethnography is that it relies greatly on close, personal experience and participation, and not just simple observation.

Ethnographic research for this thesis also included reflections/observations that I made in my status as National Handwashing Coordinator, hired by the World Bank between 2006 to 2009, as well as observations that I conducted exclusively for this PhD thesis of handwashing and puppetry activities within the schools sector in Kenya. The informants who I met in my capacity as National Handwashing Coordinator included government officials in key

ministries, and actors in civil society organisations as well as the private sector. My responsibilities as Handwashing Coordinator included coordinating research activities such as the National Baseline study on handwashing, coordinating stakeholders' activities such as information sharing and overall establishment for the national initiative structures. Other responsibilities included coordinating stakeholders involved in conceptualisation and implementation of advocacy and communication initiatives across Kenya. Although the national handwashing programme was largely implemented in four of Kenya's eight provinces, namely Nyanza, Western, Rift Valley, Nairobi and North Eastern provinces, there were plans to replicate same activities nationally during the scale-up phase. My interaction as National Handwashing Coordinator with key players in the WASH sector has contributed immensely to what I share in this thesis as reflections/observations made over the years. Their experiences as WASH sector players are important and unique based on their work as policy makers, technocrats and implementers of the national programme. Thus it becomes significant that some reflections and observations from that four-year period as National Handwashing Coordinator are included in this thesis, to enrich the findings gathered from primary and secondary research.

2.2.1 Why Ethnography?

When embarking on a research project, the methodology one chooses to work with is fundamentally important in determining both the form that the research will take as well as the success of the final product. In order to determine the most effective methodology to use, there are two variables to consider. The first is the current state of research in the proposed area of study. For example, in an established field, where widely accepted theories already exist, experimental or other quantitative methods might augment or enhance those existing theories. However, in a research area lacking widely accepted theory, experimental methods are less appropriate, because if there is no prior research upon which to build, there is no reason to assume that the collected data will be relevant, that measurement methods will be appropriate, or that any discovered relationships will make sense. The second issue to take into account is the proposed research goals. If a researcher wishes to test different information retrieval algorithms, for example, he or she will choose different methods than the researcher who wishes to explore the concepts and processes of performance, interaction and interpretation of variable objects (Winget 2005).

It is widely accepted that one of the most common forms of qualitative research is ethnography, which seeks to understand human behaviour within its own social setting. Closely related, the 'ethnography of communication' model uses anthropological methods to study verbal interactions in its own social setting and tries to understand, as completely as possible, from as many different viewpoints as possible, the ways people interact with each other, their environment, and their technologies. The term qualitative implies an emphasis on examination of the processes and meanings, but not measured in terms of quantity, amount, or frequency. Typically, qualitative methods produce a lot of detailed data about a small number of cases, and provide a depth of detail through direct quotation, precise description of situations and close observation. One of the greatest strength of qualitative research is that it attempts to depict the fullness of experience in a meaningful and comprehensive way. Qualitative research then, is most appropriate for those projects where phenomena remain unexplained, where the nature of the research is uncommon or broad, where previous theories do not exist or are incomplete and where the goal is deep narrative understanding or theory development. Qualitative methods for data collection typically include participant observation, open-ended or semi-structured interviews, and qualitative content analysis of documents (Hammersley 2007).

Reeves and colleagues (2008) have enumerated advantages of ethnographic research over other methods. For example, the use of participant observation enables ethnographers to immerse themselves in a setting, thereby generating a rich understanding of social action and its subtleties in different contexts. Reeves and colleagues (2008) add that "participant observation gives ethnographers opportunities to gather empirical insights into social practices that are normally hidden from the public gaze. Additionally, since it aims to generate holistic social accounts, ethnographic research can identify, explore, and link social phenomena which, on the surface, have little connection with each other" (Reeves et al. 2008, 513).

Ethnographic research also poses some challenges. Owing to the relatively long periods of time ethnographers spend talking to participants and observing actions, it can be difficult to secure repeated access, especially if institutional gatekeepers are concerned that the research may cast their organization in a poor light.

In common with many ethnographic studies, this research included an observation of the physical settings and interviews with key informants, but participant observation is the predominant component of this cocktail. The HWWS study used this method especially during the interactive puppetry workshops and performances. The way to get the best out of the performances is to join in instead of being a passive observer. Interviews with key informants played a critical part in ensuring that I unpack and understand school culture. This study used a premise that every community or group to be studied was distinctive (Jupp 2006). This called for almost total immersion of the researcher in the activities to facilitate understanding of the distinctions. Despite the challenges of analysing the data that is collected through ethnography, Jupp (2006) acknowledges that the output of this method is an academic product and a vivid document with human resonance impossible to recreate by the application of other methodologies.

Ethnographic research also poses some challenges. Owing to the relatively long periods of time ethnographers spend talking to participants and observing actions, it can be difficult to secure repeated access, especially if institutional gatekeepers are concerned that the research may cast their organization in a poor light.

Winget (2005) points out one criticism of the ethnographic method is that it is not objective – the researcher’s beliefs eventually become intertwined with his or her theories thereby making the data and findings unreliable. This is a complicated problem. In any research setting, observation is a means to comprehension of a particular question. However, ethnographic methods have a much more comprehensive goal of gaining an almost complete understanding of a situation or event. In order to achieve this level of understanding, the researcher must become involved in the situation under scrutiny. Many believe that there has to be an interrelationship between researcher and subject, not only because it is impossible to have an objective distance, but also because striving for objectivity is not a realistic goal and perhaps even counter-productive (Winget 2005).

In most instances, the interaction between the researcher and the subject has been seen to promote better understanding of the issues being researched on as Winget (2005) asserts:

Interactivity between researcher and subject is what allows the ethnographic investigator to discover “the truth.” For this reason, the ethnographic researcher embraces interactivity in observational settings, and indeed takes

advantage of it in order to come to the greatest understanding of the problem at the deepest level. So instead of being a flaw, researcher involvement becomes an asset in its focus on deep understanding. (Winget 2005, 5)

The challenges related to data analysis are also reflected in the data collection itself. When observing an activity, two observers are likely to record two different observations of the same event. This suggests that interpretation of the same event can also differ greatly by the two observers. While reviewing literature on ethnography, it was of particular interest and of benefit to the study to learn from some of the best practices elsewhere. The disparities in reporting and interpretation were to be minimized in this research project by designing tools such as checklists for observations to help identify facilities, infrastructure and supplies made available in schools such as water, soap, toilets etc. Following previous research on hygiene, the research also used structured observations to measure children's actual hand-washing behaviours at key juncture points such as after using the toilets and before eating (Curtis and Sidibe 2007).

The purpose of applying ethnographic approach of data collection is to uncover socio-economic factors influencing handwashing behaviour among school children. Based on their different demographic, social, cultural and economic backgrounds, this method may assist me to deduce differences in their handwashing with soap behaviour. Ethnographic interviews, ethnographic participant observation, photography and review of pertinent literature helped identify some of these dynamics.

Ethnography is a highly useful methodology for addressing a range of research questions within the health professions. In particular, it generated rich and detailed accounts of events related to the behaviour and characters of individuals and a careful analysis of these events provided answers to issues related to attitudes, reasons for certain actions or lack of it for that matter, and responses to the puppetry intervention.

2.2.2 Understanding the Community from Inside

Ethnography is a social science method developed within cultural anthropology for studying communities in natural settings. Although ethnography is commonly associated with lengthy research aimed at understanding cultures remote from our own, it can also be used to inform

the design, implementation, and evaluation of public programs (United States General Accounting Office 2003).

Ethnographic methods are exploratory. They are appropriate for studying issues or problems that are not readily amenable to traditional quantitative or experimental methods alone and in which it is important to discover what the participants do and why they do it from their own perspective. Field observation and exploratory interviews are not exclusive to ethnography as other social sciences draw on them as well. Ethnographic work may include measurement and analysis methods common to other social sciences. For example, it may include a structured survey administered to a representative sample of respondents that can be used to measure relationships among the variables that emerged from exploratory work. The standards of quality that apply to these methods apply in ethnographic studies, as they would in any social science.

Another interesting definition is found in the United States General Accounting Office (USGAO). This publication tries to distinguish ethnography from other social sciences. However, two important features distinguish the ethnographic approach from other social sciences. First, ethnography seeks to understand culturally based behaviours and beliefs from the perspective of a community's members and to use local perspectives as the foundation for building testable theories. Second, the researcher is the primary tool for data collection, which takes place under conditions that the ethnographer cannot control. The second feature raises potential threats to validity and reliability, but these can be minimized by careful procedures that are outlined in the professional ethnographic literature and are emphasized in ethnographers' training (United States General Accounting Office 2003). Although my study took this approach as described in the USGAO, they differ slightly as part of my data was collected by research assistant and also through other data collection approaches. Because of these, the collected data was subjected to triangulation hence limiting the bias pose through purely ethnographic approach.

Denzin, while supporting the views held by other writers on the same subject, asserts that critical and reflexive performance ethnography “dialectically situates the researcher and those he or she studies in a dialogue or exchange” (Denzin 2003, 33).

Reflexivity (that is, the relationship a researcher shares with the world he or she is investigating) is a central element of ethnographic work, owing to the relationship the ethnographer shares with participants and the ethical issues that flow from this close relationship (Denzin 2003). Within research reports, reflexivity is presented in the form of a description of the ethnographer's ideas and experiences, which can be used by readers to judge the possible impact of these influences on a study. To enhance the quality of their work, ethnographers will often provide a detailed or thick description of the research setting and its participants, which will typically be based on many hours of direct observation and interviews with several key informants.

Walcott (1988) while supporting ethnographic method maintains that it is an appropriate method for anthropologists interested in cultures of communities they are studying (Walcott 1988). The need to investigate in detail many facets of a culture requires the researcher's prolonged engagement in the setting. Walcott (1988) echoes many others when he advises the researcher:

To remain at least long enough to see a full cycle of activity, a set of events usually played out in the course of a calendar year." For methods, ethnographers never rely solely on a single instrument. The strength of fieldwork lies in its "triangulation," or obtaining information in many ways. Triangulation is supposed to support a finding by showing that independent measures (checking with different sources, applying different methods, attaining corroboration by different researchers, and examining through different theorists) agree with it, or at least do not contradict it. The researcher is the key instrument, but in the information gathering she or he "utilizes observations made through an extended period of time, from multiple sources of data, and implying multiple techniques for finding out, for cross checking, or for ferreting out varying perspectives on complex issues and events. (Walcott 1988, 192)

My study falls short of this definition. Due to limitation in time and resources, it was difficult for the observation activities to last more than eight weeks. However, as mentioned above, the project adopted the triangulation approach as information was obtained in many ways such as observation of children's behaviour during the eight weeks period or puppetry workshops. The research team also immerse themselves in the school community and using

the participant observation technique to gather information that subtly displayed in most instances but the kids were able to drop their guard and display this behaviour during the interactive puppetry sessions. Interviews were conducted for the children, teachers, and members of parent-teacher associations as well as other stakeholders.

Several writers have reflected on the opportunities and challenges this approach poses to researchers. Barab and colleagues (2004) insist that the question of how to engage groups in collaborative work is central to participatory research, in which the researcher advocates an empowerment agenda while seeking to understand and build relationships with the community under study.

The first proposition is that ethnographic methods provide a valuable toolkit for instructional designers who want to develop complex educational interventions that require local adaptation. Reciprocally, the second proposition is that instructional designers can offer critical anthropologists a methodology for extending their work to future contexts. To be sure, we recognize many concerns associated with this proposition. As outsiders, building a critique with the goal of supporting change is controversial enough (Barab et al. 2004, 255)

Barab and colleagues (2004) further argue that in most ethnographic studies, work proceeds with the researcher acting as a participant observer, a stance that suggests characteristic implications. Finn (1994), reviewing current literature in the fields of action and participatory research, outlines three key elements that distinguish participatory research. Ethnography, he says, is people-centered in that critical inquiry is informed by and responds to experiences and needs of people. Secondly, Finn (1994) says that ethnography supports peoples empowerment through the development of common knowledge and critical awareness and lastly it recognizes the inseparability of theory and practice and the commitment improving both (Finn 1994). The important point is that while the exercise is building a thick description of the existing context, it is also positions the researchers in a role in which they have a clear agenda and critical expertise to provide service and activities to the community.

Barab and colleagues (2004) have reflected on their own ethnography work, and identify three critical ongoing focal points that are key to the success of ethnographic approach to

research. First is trust. Building trust is a necessary component in any relationship. Issues of trust are especially sensitive in the context of relationships, in which the researchers may be viewed as using others for their own agendas and community members may distrust their motives and commitments. We view trust as evolving based on many factors, including adopting a participatory posture, developing multi-tiered relationships, and having an evolving as opposed, to an imposed agenda (Barab et al. 2004).

The second focal point is the designed intervention, capturing the assumption that critical design ethnography involves building a socially responsive design with the goal of supporting change. The intervention may evolve over time continually being remade as specific structures are adapted to local contexts. Members interact; the participation of new members changes the design and members experiences (Barab et al. 2004).

The third focal point involves sustainability and addresses the necessary commitment of the design ethnographer to support sustainable change. The goal is that the plan and the implementation are innovative but sustainable. All too often researchers finish their data collection and then shift to the next project, at which point the intervention without the support of the research team simply crumbles. It is important to reflect on kind of support the community and stakeholders will require making sure the initial innovation is either integrated in other ongoing activities and partnerships (Barab et al. 2004).

Reflecting more generally on the challenges of critical design ethnography, our experience was that in this partnership we had to first put aside our own agenda so that we could build a collaborative agenda that included our own commitments, but did so as part of a locally grounded, locally relevant, and locally owned process. There is a tension in simultaneously advancing an agenda and at the same time listening, honouring, and learning from others. This tension remained throughout our work, with our view sometimes being front and centre, at other times fading into the background, and at others being challenged, modified, or abandoned. We view this not as a contradiction but as a tension that is inherent in the process of carrying out critical design ethnography, and, we argue, of living more generally (Barab et al. 2004, 264-265).

Barab and colleagues (2004) seem to suggest that in ethnographic studies, the researcher may need to sacrifice at some point divert from their interest to accommodate the communities. It gets even more complicated where the partnership is broad as will involve struggling to push your own agenda forward while at the same time accommodating others views. This may bring about tensions that if handled well create a healthy learning environment. This is an important point as it indicates that ethnographic studies may take longer period than planned for due to complexities that arise in the course of the study.

The United States General Accounting Office (2003) study proved that ethnographic approach can help to fill void that may exist when other social science methods are used to gather information.

Gaps in information about and understanding of communities or populations whose beliefs and behaviour affect how a federal program operates can be obstacles to a program's objectives. Those gaps are sometimes filled by using ethnography, a set of social science methods designed to build knowledge by observation and in-depth interviewing of a community's members. (United States General Accounting Office 2003, 3)

The United States General Accounting Office (2003) study report concludes:

In reviewing information from our overview and the four case studies, we observed that in each example, ethnography helped obtain previously unavailable information about beliefs and behaviours that was important to the federal program's ability to attain its objectives—information that could not be readily obtained by other methods. The studies were not done merely to add to general knowledge about the groups studied. They also addressed program-related issues (United States General Accounting Office 2003, 27).

2.3.1 Prior Assumptions

Prior to commencing doctoral studies, I already had knowledge of the stakeholder institutions/organizations based on my experience as the former Country Handwashing Coordinator with the World Bank Initiative (see Table 1). Challenges in promoting handwashing with soap would vary from one school to another. However, at the outset of the

project, the major ones that I had anticipated might be discussed in the interactive puppet performances included:

- Lack of access to basic water supply. Depending on their location, very few schools have running tap water.
- Lack of appropriate hand washing facilities. Where these facilities are available, they may be insufficient, inaccessible, or improperly used.
- Poorly located HW facilities. For older children the hand washing facility should be located near the place where children defecate. For younger children, teachers may prefer to have the facilities located in or near the classroom so that they can supervise handwashing.
- Lack of soap in schools. Even where available and when placed at the facilities, it may be wasted (in case of liquid soap) or stolen (in case of bar soap).
- Lack or limited funds as the schools may not have a budget to purchase the handwashing facilities such as water storage systems with taps.
- Handwashing facilities may be inaccessible because they are locked for fear of theft. They may be available but not usable due to lack of water.
- Many handwashing facilities are also used for drinking water. If feasible, the facilities should provide safe drinking water. If this is not possible, children, teachers, and other school staff should be made aware that the water is not safe for consumption and that safe drinking water is provided at another location.

2.3.2 Collaborative Arrangements

Because of the social mobilization approach the study has adopted, I created partnerships with various stakeholders drawn from all sectors. This partnership has evolved over time with the stakeholders making commitments and supported the initiative.

Soap manufacturers were requested to assist and PZ Cussons donated soap that was distributed to the participating schools during the behaviour trials.. The sanitary hardware manufacturers were requested to donate handwashing facilities – basins and water storage tanks - to ensure continuous availability of water during the trials. As no donations were made in time for the trials, I purchased a two water tanks for Boonhouse School and donated them to the school after the project to promote sustainability of the intervention.

Between 2007 and 2009, I coordinated a national handwashing initiative in Kenya and worked with the stakeholders below. I consulted with them regarding this project, and those who were supportive of the project became stakeholders. Table 2.2 below captures the partnerships, and the roles and responsibilities that partners played.

Table 2.2: Partnerships and their roles and responsibilities

Partner	Role and responsibilities
MoPHS	Lead government agency in hygiene and sanitation. Sanctioned the project and forwarded request to MoE.
MoE	Approved all matters related to operation and ethics within education institutions
MoWI	Ensured provision of water and related facilities
World Bank/ WSP	Technical assistance to MoPHS
UNICEF	Technical assistance to MoE
FPPS	Technical assistance in puppetry training and construction
Plan International	Expertise working with children
Child Africa	Publishers of Bingwa magazine for children
PZ Cussons	Experience working in schools in oral hygiene
PTA	Partnership between schools and community

2.3.3 Individual Contribution to the Research

This is an individual research project. However during the data collection stage, I employed the services of research assistants who were professional puppeteers to assist in training and construction of puppets. They voluntarily participated in training the teachers under FPPS program and had a personal interest in ensuring that their earlier effort did not go to waste. They are interested in promoting puppetry and improving the children's lives. Six other assistants (observers) were recruited during the behaviour observation period – three female and three male to observe handwashing behaviour of the children after using the toilet and before handling food within the school. In addition, I recruited and trained a research assistant who helped in taking notes and conducting FGDs. Although this assistance was helpful to the project, the research assistants merely provided technical support and are not co-authors of this study.

2.3.4 Research Ethics

Given that this study involved work with school children and other members of the community during the period of this study, several ethical considerations were observed. Participation in the study was voluntary. The human subjects involved were selected following criteria that was jointly established with stakeholders.

As is the culture in Kenya, the teachers responsible for the health club activities signed consent forms on behalf of the pupils' parents/guardians. In Kenya, the average level of education of adults is 4.2 years of schooling (see <http://www.nationmaster.com/country/kenya/edu-education>). Due to limitations in literacy and education of most parents, schools do not have a culture of sending parents forms to sign for permission to undertake particular activities, projects or field trips. Parents assign the school a high level of guardianship and rely heavily on the capacity of teachers to evaluate the benefits of children's engagement in selected school activities. Parents also have great respect for the learning and knowledge that even young children acquire through schooling, and allow them considerable capacity to make independent choices based on that learning. Indeed, it was anticipated that much of the impact of this project would arise because the children who learnt about handwashing in a school environment would return to their house, and due to their position within the household their learning and behaviours would usually be passed on to others in the home environment - mostly to siblings but also to parents/guardians. Thus it was most appropriate that the children and their school teachers/principals sign the consent forms rather than the parents/guardians.

I have worked with school children over the years on other interventions within the school environment. I was therefore aware of the procedures that needed to be followed, which included:

- a. Involving both the MoPHS and MoE authorities at the ministry headquarters, who sanctioned the project and referred project to the regional level officials, who in turn requested the school management to allow the researchers to work in the school with the children.
- b. The researchers had to ensure project activities do not interfere with core curriculum of those involved. WASH or Health Clubs was my entry point.
- c. A teacher was assigned to look after the children during their interaction with the project team.

- d. The schools and individual participants were not paid for their participation. Such activities were meant to be seen to benefit the school and the community at large. However, the materials used during the project such as water tanks, handwashing facilities, etc. were donated to the schools after as a form of appreciation.

2.3.5 Potential Risk and Risk Management Strategies

The study addressed the issue of hygiene promotion using puppetry to promote behaviour change and also explore what needs to be done to ensure institutionalisation of hygiene and sanitation especially handwashing initiatives in schools. This is a subject that is not sensitive and controversial. The team and I have extensive experience training puppeteers and have worked with school children on different initiatives. I have extensive experience in conducting interviews as well. This therefore minimized the risks arising from our interaction with the subjects. I also obtained permission from relevant government and school authorities to work with the schools and develop protocols for interactions with the children. That notwithstanding, potential risk anticipated were:

1. Children might have felt obliged to participate in the activities as performers or audience during the performances.
2. As young children, they might not have felt confident to express concerns about the project or a desire to withdraw to adults.
3. Government officials participating in the interviews might potentially have made comments that might disagree with current government or school thinking, and this might have led to some embarrassment or criticism if such opinions were made public.

In terms of risk management strategies, certain procedures need to be observed when working with the children. I was working with several local research assistants (RA) who had conducted puppetry workshops in Kenyan schools before. We made arrangements so that neither myself nor any RA could ever work alone with the children. Two observers (male and female respectively) were positioned near handwashing facilities in the school compound to record cases of handwashing with soap among children at break times. There was always a teacher or one other adult present during all the activities. Both I and the RAs have experience in conducting such projects in a fun way, so children were keen to participate. However, we had also repeatedly emphasized to children that the project was voluntary, and were free to return to other class activities at any time. The puppetry activities were

conducted at class times designated for 'Health Club' activities, so children did not miss out on any normal class activities. Focus group discussions were conducted for selected pupils not performing puppetry (in other words, the audience for the puppet shows), as well as teachers and members of the parents teachers association.

For partners, the risk was easily managed by granting all adult participants anonymity as they did not wish to be identified by name in the project documents. The Participant Information documents was provided to students in written form. We also provided all the information orally in a conversational way and provided ample time for questions about the project, to ensure that all children fully understood the project and what their potential involvement entailed during each of the activities (puppet workshops and focus groups).

There were clear risk-management strategies that had been employed in the event that any children wished to participate or felt uncomfortable expressing concerns about the project or if any adult participant wished to retain anonymity. The benefits accrued out of these activities outweigh the minor risks, which were controlled by the proposed risk management strategies. QUT's University Human Research Ethics Committee reviewed my ethical clearance application and approved it on July 5, 2010.

2.4 Conclusion

In Chapter 2, I have described several methodologies and approaches applied to gather data for my PhD study. No approach is superior to the other but the approaches complemented each other and in some instances one approach was used to validate data collected using another approach. They all had a specific role and in some instances, their own an advantage as I have indicated in Chapter 2. All in all, the approaches used have enriched the quality of the data collected.

Chapter 3

Theories and Concepts

3.0 Introduction

This chapter explores approaches that are commonly used in the interventions and social mobilisation that promote behaviour change and communication for social change. It specifically addresses approaches that are likely to promote HWWS behaviour in primary schools in Kenya. Chapter 3 attempts to answer sub-questions on mediums used by stakeholders, how the messages are presented to the children, how long these approaches have been and should be used, and who is involved in message dissemination. In particular, it explores Diffusion of Innovations (DOI) theory and social mobilisation approach in detail and how the two promote HWWS intervention among school children and behavioural change.

My thesis is embedded in the philosophy of Entertainment Education and Theatre for Development (TfD). The thesis develops existing Entertainment Education theory by drawing from theories of social mobilization, community participation for development and diffusion of Innovation theory to explore factors that must be considered for the EE approach to be used effectively in the context of a developing nation, such as Kenya. The theories developed under the philosophy of EE and TfD overlap to a larger extent. There are similarities between the two approaches in most of the interventions as practised in Kenya. Both strive to mobilize a people around a common problem and are likely to try and find a solution to the problem. Entertainment element is a common to both approaches as messages are disseminated in a fun way to intended audience. TfD and EE therefore share the same model and approach that my puppetry project espouses.

3.1 Social Mobilisation

Social mobilisation, an approach to community development that has gained currency since the 1990s, is at the centre of this PhD study. UNICEF was one of the first major organizations to endorse social mobilization approach in its work and describes it as a comprehensive planning approach that emphasizes political coalition building and community action (UNICEF 1993). Waisbord (2001) defines social mobilization as the process of bringing together all feasible and practical inter-sectoral social allies to raise people's awareness of and demand for a particular development program. Bringing stakeholders together creates synergy and assists in the delivery of resources and services and to strengthen community participation for sustainability and self-reliance. For this to be successful, the effort must be built on the basis of mutual benefits of partners and a decentralized structure (Waisbord 2001). The premise is that the more interested the partners are, the more likely that a project of social mobilization can be sustained over time. This approach does not require that partners abandon their own interests and perceptions on a given issue but they must be willing to coalesce around a certain problem (Waisbord 2001).

The World Health Organization (WHO) has written extensively on social mobilisation. In its publication on Social Mobilisation and Health Promotion, WHO (2003) suggests that social mobilization rests on five basic concepts and principles namely empowerment, sustainability, cultural sensitivity and gender fairness, equity and integration.

Social mobilization is a process that engages and galvanizes people to take action towards the achievement of a goal for the common good. The common good may be defined situationally, both in terms of qualitative and or quantitative benefits that impact on the greatest number of people in the community (WHO 2003). Social mobilization can assist with mustering national and local support through an open process that gives ownership to the community as a whole and mobilizes human and financial resources (WHO 2003).

Social mobilization can propel people to act, redirect or create human and material resources for the achievement of a social goal. Contextually, social mobilization is an integrative process where stakeholders are stimulated to become active participants in social change, using diverse strategies to meet

shared goals. Simply put, social mobilization is about people taking action towards a common good. (WHO 2003, 2)

Some scholars use ‘social mobilization’ interchangeably with ‘community mobilization’. For example Gryboski and colleagues refer to it as:

a process that increases a community’s capacity to identify and solve problems. Such participation can lead to equitable and sustainable improvements in health. Community participation is a pre-requisite for social mobilization. When communities have this capacity, programs and other initiatives targeting them may be more effective because solutions to their problems are based within that community’s social structures, and accountability systems ensure that services are suited to the socio cultural context. (Gryboski et al. 2006, 21)

Given the emphasis on community-based action, it is important to note that the term ‘community’ has many interpretations. Some public health programs use the term to refer to groups that have a common health risk, but those individuals may or may not perceive themselves as part of that community. In the social sciences, community generally refers to groups that have some sense of shared identity and belonging, often within a geographic and political context. Gryboski and colleagues (2006) emphasize that communities have common values, traditions, interests, institutions, and experiences. They also have social networks and systems within and beyond their boundaries, such as mutual-help traditions and social safety nets, which build support and cooperation. At the same time, communities often include differences—in status, access to resources, and power among individuals and groups. A person may identify with several communities. Communities are complex and dynamic; therefore, community participation must be tailored to a given situation.

These principles are applicable to health promotions because health problems have multiple determinants and communities must participate in both defining and solving those problems. At the same time success of an intervention depends on the capacity of communities to engage in effective action as people cannot demand services and accountability if they do not know what they need, what they are entitled to or how they can participate in problem solving. The process of community empowerment starts with community mobilization and

culminates in form of ownership. ‘Social mobilization’ or ‘community mobilization’ commonly starts with rapport building exercises and finishes with the formation of a network in the community.

This HWWS study takes cognizance of the fact that conditions both within and outside the community affects a community’s readiness to act. Such conditions may include existing political and economic structures that support public participation, or public knowledge about health conditions, This Kenyan initiative focuses on creating HWWS as a social movement in schools. The social mobilization approach assisted me to examine opportunities that exist in schools that will help shape up the social movement and entrench handwashing with soap behaviour as a common practice among the community members.

Minkler’s (1990) definition of social mobilization can be appropriated to describe the puppetry intervention process used in this study. He defines social mobilization as a process through which community members become aware of a problem, identify the problem as a high priority engage in problem assessment and analysis, and decide and undertake, to take action. The process involves many strategic allies at all levels in a wide range of support activities. Central to social mobilization interventions is empowerment or the process through which individuals or communities take direct control over their lives and environment (Minkler 1990).

Robb et al (2001), citing a case study from Malawi, emphasizes the social mobilization conceptual model is implemented with adherence to five guiding principles: participation, collaboration, partnership, equity, and quality.

Participation: Both as a means and an end, participation ensures that the beneficiaries of any intervention are, as a means, consulted and contributing to a particular development activity, and as an end, reach the point where they (communities and individuals) define and control their own development.

Collaboration: Through multi-sectoral collaboration among ministries, donors, and local organizations at the national, district, and community levels, leaders and community members must be involved consistently through all phases of the campaign.

Partnership: Whether its partnerships with government ministries, communities, or other NGOs it is important that there is shared recognition for implementation and success, transparency, and joint decision-making.

Equity: "The quality of being just or impartial," equity is at the core of every social mobilization campaign. Success will rest on equity being applied to all dichotomous areas of society--gender, race, class, literacy, and even health status (Robb et al. 2001, 2 - 3).

Quality: Often used interchangeably with "exceptional," quality must be achieved in all components of a successful campaign (Robb et al. 2001, 2 - 3).

Applying these principles from Robb and colleagues provided awareness for this PhD project that the family and other relevant social institutions and organisations should be mobilised in order to ensure a full and effective participation of all individuals with a stake in the outcomes that can be achieved from increasing HWWS among children.

My review of literature focused on social mobilization approach in community interventions and how this approach may promote ownership and sustainability of the project while meeting the project objectives of promoting handwashing with soap behaviour. The above definitions bring to the fore several key issues. These are community awareness, participation, partnership, self-determination of issues and strategies, empowerment and sustainability.

3.2 Let Communities Lead!

The term "community participation in development" indicates a vast arena, where people of every level are encouraged to participate in development activities by building awareness on their needs, problems, roles and responsibilities. As a result they take the initiative to solve their own problems and may in some cases take the leadership role albeit facilitated.

McKee says that community participation sometimes is simply a buzzword, while in other cases the participation is so high that the community controls almost all levels from project planning to implementation (McKee 1999). McKee (1999, 13-14) suggests that ten stages commonly occur when there is genuine community participation, and that quality outcomes are needed in all ten phases for a health campaign to be successful:

1. Communicate information: Members of the community are given information in a manner that allows them to learn about the program or activities and enables them make a choice.
2. Giving opinion: Community members get an opportunity to give their opinions and air views regarding the program. Implementing agency at this point need to listen keenly to the peoples' views
3. Consultation: The agency takes time to further consult with the people and may adjust the proposed plans to suit the people's requests or provide reasons and evidence to explain why the agency's plans will remain unchanged. Although the people are consulted they are not made part in the decision making process. The implementing organization remains the ultimate authority for decision-making; they are not obliged to accept the suggestions from the community.
4. Participate in providing data: The community plays a central role in providing necessary information that the agency uses to make decisions. The community participates by responding to the questions, helping for visit or observation and supplying information about the situation, problems and on-going development activities to the implementing organization. In this case the communication takes place as it is required by the implementing organization. The community provides information but does not have any authority to decide.
5. Periodical functional linkage: Links develop between the community and the implementing organization basing on these functional needs. The relations do not have longevity. In development interventions, people paid to work for a limited period do not develop any permanent relation with the employer.
6. Long-term functional relations: For implementing developmental activities longer-term functional relations with the local community is required to be established. Establishing a committee made of local committee for management and maintenance of a school.
7. Establishing organization with external interventions: A traditional way of involving people is organizing groups or associations composed of implementing government or non-government organizations workers. They are commonly referred to as partners or stakeholders that will help in project implementation, interact with the implementing organization on various issues, etc.
8. Participatory decision-making: For implementation of any development program, there is a need for understanding or agreement with the people in the community. This includes

liaising with partners, consulting them during every stage of decision making to ensure buy-in and ownership.

9. Getting organized at own initiative: The community people may assemble and get organized for certain activities. Ideally no external agency should influence the process. However, in a rich-poor mixed community the rich people commonly take up leadership and dominate decision making. They may use the poor people for their own interest. Since the control and decision making remains with the selected influential people, the poor people who are the majority cannot enhance their capacity.
10. Establishing the control and leadership of poor community in project planning and implementation: The poor people should be made aware of their common needs and interest so that their initiative and leadership is established towards empowerment. This would facilitate self-reliance and separate organizational strength. They can decide about their own interest, which ultimately leads to increased possibility of protecting their interest. They can participate actively in the decision-making process and on issues that affects their life. Their participation does not remain confined to the controlled environment of the leaders of external agencies.

Hassan and Nizamedinkhodjaeva (2002) similarly point to the importance of development agencies involving stakeholders as key decision-makers.

As a result of social mobilization work, the stakeholders should understand that they are creating participatory organizations for their own collective benefit, and that such organizations will work for them on their decided rules and procedures, and are mainly accountable to them. Social mobilization is undertaken through understanding the stakeholders' needs and problems... and assisting them through trained staff to engage in a dialogue to agree on collective action. (Hassan and Nizamedinkhodjaeva 2002, 4).

One key tenet observed by social mobilisers is dialogue. Social mobilisers argue that discourse between the project initiators and the community stakeholders is key if social mobilisation and community participation has to succeed.

Social mobilization is not a one-time activity, it is a continuous, complex process of two-way dialogue, where new ideas from the stakeholders are well

received, examples from elsewhere are presented to communities and the communities are encouraged to think and put forth ideas that will generate truly users owned, managed and governed organizations, which are self-sustaining to the maximum possible extent (Hassan and Nizamedinkhodjaeva 2002, 5).

Hassan and Nizamedinkhodjaeva (2002) emphasize capacity-building and empowerment but caution that unless the stakeholders themselves see a benefit of engaging in collective action, they will neither join the organizations willingly, nor participate in activities organized by the organizations. Thus, it is very important that an internal need and demand for collective action is generated (Hassan and Nizamedinkhodjaeva 2002).

Externally imposed structures and organizations often tend to weaken and die with the passage of time. Likewise, external conditions such as governments' regulations on production quotas, legally defined roles etc may not be sufficient to ensure long-term change. Unconditional provision of support services, better accountability of lead officials through service agreements and incentives for collective action play an important role in motivating the community (Hassan and Nizamedinkhodjaeva 2002)

Hassan and Nizamedinkhodjaeva (2002) highlight a continuum that involves different types and levels of participation. Passive participation, the lowest type of participation, occurs where the project team informs the stakeholders about what the project is about and their role. At the highest end of the continuum is self-motivation, where the stakeholders are themselves motivated and take all actions themselves.

While this PhD project tried to achieve maximum participation by stakeholders, participation gradually needed to be improved gradually from the beginning to the end of the project. It is understandable that initially, the stakeholders liked to listen to the project staff about the project ideas, strategies, etc., and the likely benefits that the users would have by participating in the collective action.

In some community initiatives, especially those introduced and managed by public or CSOs, management is usually top-down bureaucracies, where the community is often seen as a

beneficiary. This is in contrast to social mobilisation, which takes the presumption that: “The general definition of democracy is government of the people, by the people, and for the people” (Hassan and Nizamedinkhodjaeva 2002, 6). Therefore democratic management desired in social mobilization need to be tailored in such a fashion that these represent the interests of at least the key stakeholders and users, by their representatives at all levels of the system hierarchy.

Hassan and Nizamedinkhodjaeva (2002) furthermore argue that the essence of participation and democratic management is to introduce both, internal and external, accountability. Once this is in place such initiatives community members become partners and co-own the initiative.

3.3 Community Participation for Development

Community participation is an important approach that my PhD project explored. Because I expected that my HWWS intervention would benefit the school and the community around it at large, community participation was of significance. The design of the communication campaign to promote the HWWS behaviour was also founded on the principles of community based and participatory development with school management and local community participation (see Section 5.6).

Community participation as a development strategy has a long history. It was central to the “Health for All by the Year 2000” framework proposed in 1978 by WHO and UNICEF, and adopted by 150 United Nations’ member states. Over the years, community participation has evolved to include a variety of methods and approaches, some focusing on activities, others on processes. One set of ‘empowerment’ approaches stems from the fundamental principles of community participation, and focuses on processes that enable intended program beneficiaries to define, implement, monitor, and evaluate programs that address self-defined needs.

School children who were the beneficiaries of this PhD project were at the core of the process. The project built on a foundation that was started by FPPS in training Kenyan teachers to initiate puppetry troupes in selected schools, but it was also informed by a baseline study carried by MOPHS and WSP nationally in 2007. For this thesis, I conducted a

mapping exercise that identified key stakeholders (discussed earlier in Section 2.1) and informed the multi-sectoral approach I applied during this study.

An innovative communication approach was applied in the puppetry intervention conducted for this PhD study to communicate the HWWS messages to promote and sustain behaviour among school children. Professional puppeteers with experience in script writing and message development assisted in the process. This interpersonal approach strived to develop messages that were consistent with those that were already being disseminated to Kenyans via the mass media, road show and activations in schools, and similar channels.

I initially aimed to pilot, monitor and evaluate my project in four schools. If I found the puppetry trial to be successful, then partners involved in similar ventures in Kenya in the future would most likely be influenced by the outcome of my PhD intervention. The intention was to disseminate the results widely and to ensure lessons learned and best practices might be replicated elsewhere or scaled up nationally.

One of this PhD's project's sub-goals was to explore what conditions or activities would strengthen skills of teachers and pupils involved, empower them and ensure local ownership of the program through community participation. This would hopefully promote its sustainability beyond the project period.

In general, participatory communication projects involve both top-down and bottom up communications between project leaders, stakeholders and beneficiaries with an aim to 'empower' individuals and communities to take control of their lives. Local beneficiaries are involved in designing the message and share in the responsibility of being the sender (UNICEF 1999).

Schiavo's (2007) international case study emphasizes the importance of community's participation at all levels. In planning a community mobilization intervention, community participants are likely to analyse the problem/situation and how best the community can address the issue. However, even in participatory and community-driven approach, defining potential behavioural and social outcomes help the community participants frame the issue in a way that will respond to community's needs and effectively address it (Schiavo 2007). Even though social marketing models influence the framing of issues in social mobilization,

the approach is research based and systematic, and the emphasis of community mobilization should be on building the capacity of the local community to address their own problem.

Schiavo (2007) takes issue with interventions that have not considered the fate of the project at the end of the funding period. Too often, a vacuum that is left when capacity building is not a key priority as well as larger health communication or public health interventions in developing nations. When the outsiders leave, communities are not prepared to manage programs and priorities. Azizi (2006), citing social mobilization efforts in Pakistani, similarly finds sustainability of initiatives in social mobilization as a major challenge in development projects.

Creating and supporting representative institutions at higher level that emerged to fill that void had the downside of eroding the strength of the participatory model at the village level. The challenge therefore is how to continue this enormous grassroots movement on a sustainable basis in the long run (Azizi 2006, 2).

In Kenya, initiatives that have taken social mobilisation approach too face this challenge. Despite the fact that local communities as well as CBOs are involved, my experience in the field indicates that most of the initiatives fizzle out or find it extremely difficult to continue with their operations at the end of the funding period. The challenge therefore is for implementing agencies to find the “right mix” and an exit strategy that will ensure minimal disruption of the program and continuity of activities at an acceptable level.

The puppetry intervention for this PhD was designed to address this. The social mobilization approach was chosen as the most suitable to this task and involved developing the children’s skills, mobilizing resources within the community, developing structures, and building the capacity of institutions to run the program.

Community (or social) mobilization has been positioned by several authors and organizations key component of global health communication, especially in the context of behaviour and social change models (Schiavo 2007). However, Schiavo (2007) further argues that community mobilization is not an all-inclusive tool to address community health issues. Its likelihood for success is related to the use of multi-faceted approach in which other tools and

areas of communication are used to reinforce the community change process. Most important, community mobilization efforts should complement other public health interventions (Schiavo 2007). The PhD puppetry project within Kenyan schools takes cognisance of that fact. As stated earlier in this thesis, I included stakeholders who have previously engaged in various activities targeting school children. The puppetry intervention was not in competition with or intending to replace these initiatives as a champion medium for promoting HWWS. The intervention was striving to complement what other stakeholders are doing. The idea of social mobilization approach therefore looked into the formation of partnership with diverse backgrounds and different expertise but emphasized participation of all stakeholders to ensure better chances of success.

Another challenge when designing development projects is standardization in social mobilization. Different agencies adopt varying approaches to basic social mobilization practices, organizational capacity standards, assessment tools of social mobilization, and impact assessment standards of similar projects and programs. However, there are significant variations in terms of quality and coverage of the approaches used. This makes comparison across agencies almost impossible. Lack of agreed minimum standards for a key component such as social mobilization poses risks of sub-standard practices which can go on without ever being detected (Azizi 2006).

Related to standards, Azizi (2006) further discusses the capacity of social mobilization staff and their ability to implement the initiatives.

Social mobilization is an extremely specialized profession. Apart from an in depth understanding of the communities, it requires a critical understanding of contemporary development discourses and a portfolio of skills in participatory development, basic tools and techniques of participatory research, effective communication, motivation, conflict resolution and capacity building. It also requires good marketing skills, because it involves selling new ideas, new approaches and new technologies to an extremely segmented clientele. It involves continued innovation and adaptation to changing environments. Thus social mobilization is an art, which require not only basic knowledge and wisdom, but also aptitude for continued learning and listening (Azizi 2006, 2).

It has been my experience that in most Kenyan development agencies, there are no serious efforts to systematically nurture these critical capacities and capabilities in their social mobilization staff. This study therefore critically attempted to address the issue of capacity strengthening among partners (community) included to ensure development of skills among them that would facilitate activities implementation and explore structures required to guarantee sustainability of future projects beyond their initial funding periods.

3.4 Diffusion of Innovation (DOI) Theory in Relation to HW

A theory that has dominated health promotion and communication over the decades is Diffusion of Innovation. Researchers in many different disciplines have written about or used this theory in an attempt to explain social behaviours. “No other field of behavioural science represents more effort by more scholars in more disciplines in more nations’, Everett Rogers (1995, xv) notes. Gabriel Tarde is considered as one of the European forefathers of the diffusion field. He observed certain generalizations about the diffusion of innovations that he called the laws of imitation, which today it is called the adoption of an innovation. This project, however, does not look at the whole field of diffusion but instead borrows heavily from the work of Rogers, whose *Diffusion of Innovations* is regarded by many scholars to be the "bible" of the theory. Rogers first published this landmark text in 1962, and since then, several editions have updated and expanded his original theorisation. It is a good source of information regarding all the different components of DOI. The theory has subsequently been dissected and received positive reviews by theorists, practitioners and scholars.

The concept of DOIs usually refers to the spread of ideas from one society to another or from a focus or institution within a society to other parts of that society. The theory’s purpose is to provide individuals from any discipline interested in the diffusion of an innovation with a conceptual paradigm for understanding the process of diffusion and social change. Diffusion is a process whereby an innovation spreads across a population of potential adopters over time (Rogers 1995). The process begins with introduction of the innovation to the population, and ends when the population becomes saturated with adoptions, i.e., when all those who will ever adopt have, in fact, adopted. Saturation may occur at close to 100% of the population, or may fall far short of this.

The greatest problem of diffusion is where profit motives are involved. The idea diffuses more rapidly although sometimes it does not do so at all. Innovations that are preventive – that is innovations that one has to adopt now in order to avoid some future problem – generally diffuse much more slowly (Bertrand 2004). DOI theory therefore provides some useful insights into the difficulty of achieving behaviour change in preventative initiatives. HWWS may be classified as one of this initiative from a public health point of view. As soap is required to make the exercise effective, profit element comes in as commercial entities marketing soap are involved in the initiative; they are likely to promote the habit with a profit motive. Sometimes diffusion has contributed to new problems, and fixing these problems may be complicated because it is usually more difficult trying to get people to undo what they earlier were told to do. A good example is when developing countries started to see the ill consequences of infant formula campaign that diffused so rapidly and increased infant mortality. A return to exclusive breastfeeding behaviour has been slow (Sanson-Fisher, 2004).

Person-to-person communication is very crucial in the diffusion process among all kinds of adopters. It is people sharing their experiences with an innovation with others who have not yet adopted that ultimately is what convinces most people to adopt a new idea. We do not yet know the specifics of exactly who talks to whom but the nature of the interpersonal communication matters (Sanson-Fisher, 2004).

It is critical to take into account the influence of organizations as a whole as well as individual decisions making when explaining how innovations diffuse. This includes broadening diffusion theory to encompass implementation and other discrete adoption decisions.

3.5 DOI and the Process of Social Change

DOI is a theory that analyses, as well as helps explain, the how, why and at what rate a new innovation is adapted by society. In other words it helps to explain the process of social change. An innovation is an idea, practice, or object that is perceived as new by an individual or other unit of adoption. The perceived newness of the idea for the individual determines his/her reaction to it. In addition, diffusion is the process by which an innovation is communicated through certain channels over time among the members of a social system.

Thus, the four main elements of the theory are the innovation, communication channels, time, and the social system (Rogers 1995, 219).

- Innovation is defined as any item, thought, or process that is viewed to be new by the consumer or individual. Rogers (1995) defines five mental stages in the Innovation-Decision Process that occurs from the time that an individual or group of people first hear of an innovation to the time he, she or they adopt that innovation. These are awareness, knowledge and interest, decision, trial, and adoption/rejection. Rogers (1995) further defines the diffusion process as the spread of a new idea from its source of invention or creation to its ultimate users or adopters. Rogers (1995) differentiates the adoption process from the diffusion process in that the diffusion process occurs within society, as a group process; whereas, the adoption process pertains to an individual (Rogers 1995, 219).
- Communication is defined as the process of a new idea travelling from one person to another or from one channel to the individual. In other words, participants create and share information with one another in order to reach a mutual understanding. A communication channel is the means by which messages get from one individual to another. Mass media channels are more effective in creating knowledge of innovations, whereas interpersonal channels are more effective in forming and changing attitudes toward a new idea, and thus in influencing the decision to adopt or reject a new idea. Most individuals evaluate an innovation, not on the basis of scientific research by experts, but through the subjective evaluations of near-peers who have adopted the innovation (Family Health International 2002).
- The time element consists of three factors:
 - Innovation - decision process - the process by which an individual passes from first knowledge of an innovation through its adoption or rejection.
 - Relative time - the relative earliness/lateness with which an innovation is adopted (compared to other members of the system)
 - An innovation's rate of adoption - the number of members of the system that adopt the innovation in a given time period.

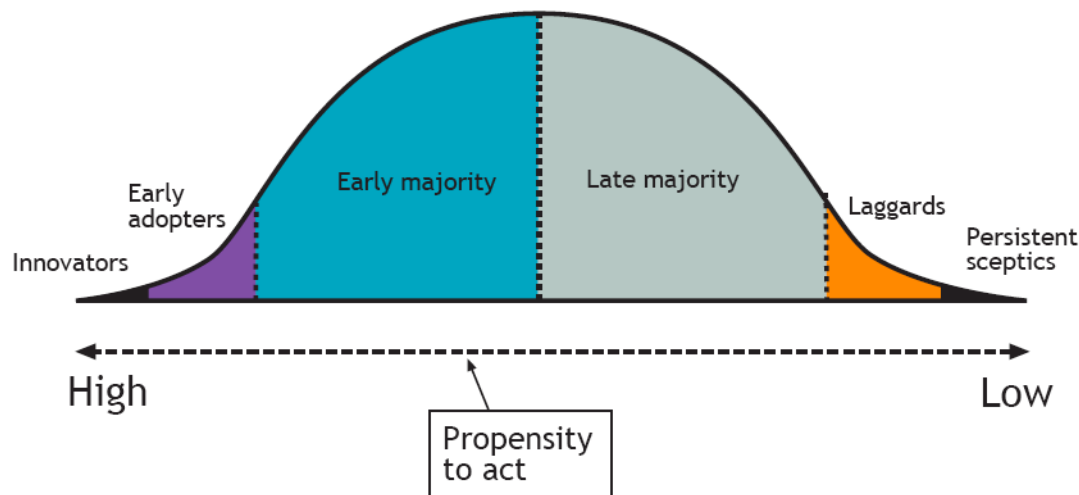
The element of time leads to levels of innovativeness, or adopter categories that describe the degree to which an individual is relatively earlier in adopting new ideas than others of a system (Rogers 1995, 219).

- The fourth main element in the diffusion of new ideas is the social system. A social system is defined as a set of interrelated units that are engaged in joint problem-solving to accomplish a common goal. The members or units of a social system may be individuals, informal groups, organizations, and/or subsystems. The social system constitutes a boundary within which an innovation diffuses. Another area of interest is how norms affect diffusion. Norms are the established behaviour patterns for the members of a social system. Of interest in a social system is the role of opinion leaders, the degree to which an individual is able to influence informally other individuals' attitudes or overt behaviour in a desired way with relative frequency. A change agent is an individual who attempts to influence clients' innovation-decisions in a direction that is deemed desirable by a change agency (Rogers 1995, 219).

DOI explains how a new practice can diffuse through a given social system to the point it becomes a social norm. As Rogers explained (1995), when “trend setters” in a social group begin to model a new behavior to others, they alter the perception of what is normative.

The premise of Rogers' still influential model is that innovations diffuse over time according to individuals' stages. Having reviewed over 500 empirical studies in the early 1960s, Rogers posited five stages through which an individual passes in the adoption of innovations: awareness, knowledge and interest, decision, trial, and adoption/rejection. Populations were divided in different groups according to their propensity to incorporate innovations and timing in actually adopting them. Adopter categories or classifications of individual groups on basis of relative time at which they adopted a new idea, technique, or process.

Figure 3.1 Roger's Division of Population Groups in Adopting Innovation.



Source: (Robinson 2009, 5)

Rogers (1995) recognises that when considering how long it takes for innovations to be adopted, scholars must recognise variations among either individual or groups to seek information and evaluate the options to adopt or reject that innovation. First, individuals vary according to their own innovativeness. Innovativeness is defined as the degree to which an individual tends to adopt new ideas before other members of a social system. Rogers notes that within any community, there is a wide range of responses among community members to innovation as follows:

1. Innovators - a tiny number of visionary and imaginative individuals who begin the innovation process. , imaginative innovators.
2. Early Adopters –Individuals who are always on the lookout for a strategic leap as benefits from the innovation become apparent.
3. Early Majority – Pragmatic group with moderate progressive ideas. They never act without solid proof of benefits.
4. Late Majority - Conservatives who hate risk and are uncomfortable with new ideas. Often influenced by the fears and opinions. Always want to fit-in.
5. Laggards - Always hold out to the bitter end. They see a high risk in adopting a particular behaviour.

In short, Rogers (1995) proposed that early adopters act as models to emulate and generate a climate of acceptance and an appetite for change, and those who are slow to adopt are laggards. One weakness of Rogers' theory is that it leads to the assumption that this latter describes the vast majority of the population in the Third World (Waisbord 2001).

Robinson (2009) cautions us that “laggards might be right. It’s possible they may not really laggards at all, but innovators of ideas that are so new they challenge your paradigms”(Robinson 2009, 9).

Combining the insights of social mobilization theory and diffusion of innovation theory, it can furthermore be argued that many so-called laggards in developing nations may be people or communities who have not been allowed a true stake in the DOI social system. A vast body of literature indicates that much development planning involves top-down decision-making and communication, and in this situation, community members are not truly engaged in joint problem-solving to accomplish a common goal. Even adding feedback loops will not necessarily overcome the problems caused by a failure to include the community in defining and exploring problems and solutions. This may be seen as a weakness of modernization theories and approaches to development more generally (Romano 2005, 3), and not simply a fault of DOI alone. My own research aimed to be attuned to the importance of ensuring deep engagement within the schools’ broader social systems, to limit the degree to which diffusion of innovation was disrupted by such limitations.

Additionally, Rogers recognises variations in the speed that different groups will make decisions about innovations. He defines the rate of adoption as the relative speed with which an innovation is adopted by members of a social system. The rate of adoption is usually measured as the number of members of the system that adopt the innovation in a given time period (Rogers 1995).

Since the HWWS study is examining behaviour change in schools, DOI theory is central to this study. The intention is to identify how it can help us understand the school community and at what stage of the process is possible to reach the ‘tipping point’ if at all.

An innovation is an idea, or a behaviour that is perceived as new by its audience. DOI offers three valuable insights into the process of social change. The first insight looks at what qualities make an innovation spread successfully. The second examines the importance of peer-to-peer conversations and peer-networks in a community; and the insight seeks to understand the needs of different user segments in the community. These insights have been tested in more than 6000 research studies and field tests, so they are considered amongst the most reliable in the social sciences (Robinson 2009).

Robinson (2009) argues that impersonal marketing methods like advertising and media stories may spread information about new innovations, but it is conversations between groups or individuals in the community that cause them to be adopted. Robinson (2009) asserts that adoption of new products or behaviours involves the management of risk and uncertainty and therefore it is usually only people we personally know and trust – and who we know have successfully adopted the innovation themselves – who can give us credible reassurances that our attempts to change will not result in inconvenience, embarrassment, humiliation, financial loss or wasted time. Using these insights, this thesis has asked whether it is possible, therefore to achieve adoption of HWWS through children in the participating schools and clubs? Can the early adopters among the groups we initially work with help influence the rest? What sort of qualities or characteristics do we need to identify among those who we worked with to get ‘the best’ (credible, trustworthy, knowledgeable etc.) children who will help achieve this goal?

Robinson (2009) further asserts that the rest of the population, however, see higher risks or effort in change, and therefore require assurance from trusted peers that an innovation is doable and provides genuine benefits. As an innovation spreads from early adopters to majority audiences, face-to-face communication therefore becomes more essential to the decision to adopt. It was intended that interactive puppetry performances would play a major role. The scripts were crafted to ensure messages on benefits of handwashing with soap were clear. The face-to-face communication between the children and possibly messages from early adopters who took up the practice would help shape attitudes of the others leading to adopting behaviour change. DOI theory was used in this thesis to help identify not just how ideas are accepted but also about the conditions under which these ideas can be implemented.

3.6 Entertainment-Education Strategy

The channel of communication used to disseminate the message is important. Messages intended to influence change of behaviour therefore have to be delivered using approaches and channels that are popular. Entertainment education is one of the strategies that is increasingly becoming popular. Singhal and Rogers (1999), define entertainment-education as “the process of purposely designing and implementing a media message to both entertain and educate, in order to increase knowledge about an issue, create favourable attitudes, and change overt behaviour” (Singhal and Rogers 1999. 229). Entertainment-education (EE),

known by various names including edutainment strategy in development, goes as far as human history as the timeless art of storytelling. Edutainment seeks to instruct or socialize its audience by embedding lessons in some familiar form of entertainment.

Marett (2010), in her study of the American setting, explores “cautionary tales” that “could be considered one of the oldest forms of entertainment-education. The popularity of cautionary tales continues today. The rhetorical form enjoys great prevalence in media-saturated environments. Cautionary tales can be frequently identified in American television sitcoms and dramas” (Marett 2010: iv).

Tufte (2001) explores the origin and growth of EE in the context of social marketing. Since there is abundance and diversity in the growth of entertainment-communication, he broadly defines EE as “the use of entertainment as a communicative practice crafted to strategically communicate about development issues in a manner and with a purpose that can range from the more narrowly defined social marketing of individual behaviours to the liberating and citizen-driven articulation of social change agendas” (Tufte 2001:162). From his studies of the history and development of EE, Tufte observes that the approach “has followed the key theoretical and methodological trends from communication for development in general” (Tufte 2001: 162).

The entertainment-communication practice we observe today is a negotiated strategy with epistemological foundations from scholars and strategists rooted in different schools of thought; varying cultural traditions of storytelling; a breadth of organisational traditions, trajectories, priorities and constraints; political agendas; varying media infrastructures and, finally, with the *ad hoc* tool box of communication also playing a crucial role in determining the final outcome of *de facto* developed strategies. In providing a brief history of the development of EE and in outlining the three core generations of EE practice, some of these synergies and characteristics will appear. (Tufte 2001:161)

There is strong evidence that mass media, particularly entertainment broadcast media, have played a significant role in a number of countries in bringing about changes in reproductive behaviour and in promoting adoption of other health measures. Ryerson (2008) cites the case of two 1987 programmes produced in Kenya. A television series, *Tushauriane* (“Let’s Talk

About It”) produced by Greg Adambo; and a radio series, *Ushikwapo Shikamana* (“If Assisted, Assist Yourself”) produced by Tom Kazungu. The programs were aimed at opening the minds of men in order to allow their wives to seek family planning.

By the time the two series had ended, contraceptive use in Kenya had increased 58 percent and desired family size had fallen from 6.3 to 4.4 children per woman. While many factors undoubtedly contributed to these changes, a study conducted by the University Of Nairobi School Of Journalism at rural health centres gave evidence of women coming in for family planning saying that the radio program had caused their husbands to allow them to come for family planning. (Ryerson 2008, 4)

Tufte (2001) observes that EE has for long been focused on individual behaviour change, but social change has in the past decade increasingly emerged as a main goal for many EE-strategies. Attention has been on an individual as unit of change but is now being turned to structural elements. Society is therefore the unit of change to be addressed. That is the emphasis as well in my study. I explored the structures that need to be put in place to enable the pupils access a successful HWWS programme but at the same time change their individual and group/community behaviour. “The larger purpose of entertainment-education programming is to contribute to the process of directed social change, which can happen at the level of an individual, community, or society” (Singhal et.al. 2004:142).

Avineri and Goodwin (2009) list the four important elements to be considered when designing EE interventions aimed at behaviour change. They are i) legislation and enforcement; ii) economic interventions, focusing on prices and financial incentives; iii) persuasion, considered rather broadly to include education, advertising campaigns, social marketing, and provision of information; and iv) holistic or integrated approaches seeking to combine all these instruments.

Behaviour change occurs both as a result of policy interventions deliberately intended to bring it about, and as an inevitable consequence of interventions with other objectives. It has to be seen as a dynamic process that takes place over time, in the context of changes in personal or family circumstances, recognising the importance of habit, churn, context, unintended effects, and

substantial variation between individual circumstances and responses. (Avineri and Goodwin 2009:3)

The design of this PhD study has paid considerable attention to these four elements. Chapter 8 explores policy issues that affect implementation of initiatives related to sanitation and hygiene. Chapter Six explores issues related to motivations in the school environment as well as ongoing interventions and their success this study however does not go into details of financial incentives and pricing of commodities and services. There is an attempt as well in Chapter 9 to look at what holistically makes a successful handwashing with soap intervention.

For behaviour change to take place, the information disseminated must be persuasive. Persuasion is one of the key elements in entertainment-education. There is mixed experience on the use of information, education, training and advertising, which are very dependent on context. Avineri and Goodwin point to the persuasive potential of EE communications.

The experience seems to suggest that the success of persuasion measures, such as advertising campaigns, is not a matter of simply deciding to have a campaign, but the salience of the creative content, targeting, and the nature of the improvement sought. Local activity is often enhanced by partnerships with local stakeholders. Persuasive methods also include experience with personalised travel planning, information provision, training, the organised use of group discussions and collective action, and the use of local networks. In each case there are examples of successes where well-designed initiatives have had significant effects on participants (Avineri and Goodwin 2009:5)

This PhD study did not explore in detail all the elements proposed by Avineri and Godwin above, but it did investigate aspects of social marketing approaches that are relevant in EE, and how these might promote community participation and sustainability of HWWS interventions in schools (see Section 2.3). Social marketing uses the principles and processes of commercial marketing, but not with the aim of selling products and services. Rather, the goal is to design and implement programs to promote socially beneficial Social marketing has also been used to promote better parent-child communication and improved family health behaviour change. In public health, social marketing attempts to increase healthful behaviours

in a population by using such proven marketing techniques as market research to understand audience attitudes and beliefs that may affect behaviour in response to a health message.

3.7 Puppetry and Entertainment-Education

Theories developed under the philosophy of EE and TfD overlap to a larger extent, and both are useful when considering puppetry as an educational tool. Eskamp's *Theatre for Development* attempts to trace the origin of TfD in Africa.

TfD or Popular Theatre as it was called in 1970s was first experimented with in Botswana, for instance with performances that included puppets, songs and dances. The initial experiment was known as Laedza Batanani: an attempt to use drama and other performance forms combined with discussion, as a vehicle for community education. The idea was to use the drawing power of theatre to bring community members together, and to focus on key local issues addressed in the drama (Eskamp 2006: 14).

Folk media – such as music, drama, and dance – have been used in many countries as a form of entertainment and recreation as well as passing critical messages to community members for devotional, reformation and instructional purposes (Singhal and Rogers, 1999). Most Kenyan communities use music, dance and other folk media not only to communicate messages but also to express how the performers' feelings are affected by the circumstance. For example, a popular Western Kenyan song, *mwanambeli* (the firstborn), which is sung at both funerals and weddings in praise of a firstborn child but with a varied tone to denote a different mood. *Mwanambeli* can denote achievement (in the case of weddings or other events signifying positive change of social status) or loss (such as at funerals or other events that commemorate misfortunes that may have befallen the first born).

One cannot discuss the use of folk media or TfD in Kenya without citing Ngugi Wa Thiongo from Kamirithu, an expansive village in Central Kenya and home to prolific African Writer Wa Thiong'o, who founded the Kamirithu community theatre group in 1976. Kamirithu was most popular as an open air theater where peasants performed plays to communicate social issues to the rest of the community. It is where Kenyan community and theatre practitioners for the first time experienced TfD. "Theatre in Kamiriithu, as in other African communities,

was not a new phenomenon. It existed even before the coming of the white man. Though, philosophically, the traditional theatre that Ngugi alludes to and Theatre for Development as we understand it now might not mean the same thing” (Odhiambo 2004: 74).

Odhiambo (2004) examines the Kamiriithu model. Although he does not agree that this model represents the best approach to TfD in Kenya, it was the starting point for TfD and all those involved strove to symbolize the tenets of TfD. It transferred adult education from the confines of a classroom to an open space in the community:

That Kamiriithu aspired to embodying the philosophy of Theatre for Development is evident in the workshop approach that was greatly exploited during the open rehearsals. The workshop approach meant that ideas were not imposed on the community and those participating in the drama. Indeed, the workshop approach ensured a democratic and dialogic approach in the activities of the Kamiriithu project. This approach is both consonant and consistent with the “inside-out” approach common in ideal Theatre for Development enterprises, an approach where the facilitators worked alongside the communities at all levels of the performance production. In fact, the inside-out approach is analogous to the bottom-up approach in development philosophy. (Odhiambo 2004: 76)

Civil society organizations in Kenya have taken advantage of these traditions when developing an EE strategy to promote various programmes. As mentioned in section 5.5, FPPS has used folk media such as drama, music, poetry, story-telling and other popular genres to promote adoption of family planning methods in the community, promote child survival and development as well as prevention of HIV and AIDS.

Puppetry falls into the realm of TfD in the broader sense. Eskamp (2006) suggest that Theatre in Education (TiE), or Community Theatre were used and overlap but which of these terms applies best depends on the definition of “development”, “community” or “education”.

Eskamp tries to put this definitions in perspective when he states that those “Using TfD as a learning and discovery process as a sequence of social practices seen as interconnected, the aim is to create critical consciousness and to raise the participants’ awareness with the

possibility of taking action to solve their social problems. In this sense, TFD is always work in progress” (2006, 5). Eskamp adds that “change can be achieved by using TFD performances to provide communities with information in order to influence their way of thinking on certain topics and may lead to behavioural change” (2006,5).

Section 3.6 above discussed how EE could be directed not just at individual but also community and social changes. By proposing to use puppets for an HWWS intervention for this thesis, I anticipated that the effects would be located in the individual audience members. The intervention could also influence the audience’s external environment to help create the necessary conditions for social change at the group or system level. The major effects were aimed at altering the social-political sphere. It was thus intended that puppetry for this study should be viewed as an approach that can serve as social mobiliser, an advocate, or agenda-setter influencing the public and policy initiatives in a socially desirable direction (see Section 5.5). Section 5.3 explores in further detail the linkage and similarities of puppetry and EE. The emphasis of Section 5.3 is therefore on the unique role of puppetry and its acceptance by the communities as a genre that is able to address sensitive and taboo matters without offending the community members.

The focus of this thesis is to explore what pre-requisites are required for HWWS initiatives in schools to be successful, using a puppetry intervention as a case study. In this respect, the puppetry approach falls into what Tufte (2001) refers to as third generation EE intervention. Tufte describes first generation EE intervention approaches as those that have ‘worked systematically to explore how best and most accurately to convey messages and promote individual behavioural change’ (Tufte 2001, 163). By contrast, ‘second and third generation EE interventions – have had a stronger focus on communicating structural inequalities, representing and working with power relations and social conflict in the everyday life of the characters, and by representation of such problems stimulating debate and collective actions’ (Tufte 2001, 163). This thesis research attempted to embody Tufte’s principle that EE must go beyond social marketing strategies that merely ‘define the key problem as a lack of information’, and instead use second and third generation principles that problems need to be defined and addressed ‘as societal problems such as structural inequality and unequal power relations’ (Tufte 2001:163). This PhD study focused on stimulating debate and promoting both individual and collective action in the school community. The discussions during the

puppetry workshops and performances identified issues that prevent or promote HWWS (see Section 7.3.3 for more detail).

During the puppetry workshops, participants engaged in deliberation to identify how they should frame problems relating to handwashing. The facilitator would pose a question such as: Why aren't children washing hands despite their high knowledge levels? Participants had an opportunity to interrogate all issues that may be seen as obstacles to HWWS in schools. This information would then be crafted as messages in the puppetry script if necessary. This contrasted to earlier interventions in schools, which followed the conventional approach where teachers or health club members addressed the issues focusing on messages specifically designed to promote certain practices. This raised the knowledge level but knowledge acquired has never been translated in practice. That situation reflected what Tufte (2001) addresses below:

Previously, the focus was on correct and possibly culture-sensitive messages conveyed via the mass media. The focus today is on problem identification, social critique, and articulation of debate, challenging power relations and advocating social change. There is a strong recognition that a deficit of information is not at the core of the problem. Instead the core problem lies in a power imbalance, in structural inequality, and in deeper societal problems. Solutions are sought by strengthening people's *ability to identify* the problems in everyday life, and their ability to act –collectively as well as individually– upon them. Empowerment is the keyword of the third generation EE (Tufte 2001:166).

Just how much information is retained and to what degree audiences are influenced by what they see in an EE message has led to controversy regarding the educational value of such strategies (Tufte 2001). This is reflected in the different approaches that exist within EE.

They reflect epistemological differences in how to conceive learning and education, how to conceive audiences as either passive recipients or active participants in the communication process and they ultimately reflect different aims, objectives and understandings regarding development and change. The epistemological differences within one or the other EE approach reflect similar

differences within the overall field of communication for development (Tufte 2001:167).

Tufte (2001) observes that even Paulo Freire's ideas – developed from the 1950s into the 1970s – have regained momentum and force, amongst both scholars reflecting upon EE and a growing number of practitioners. He argues that EE is not just one communication strategy. It can be many different approaches that have been combined or are being used that all have in common the use of entertainment as a communicative practice crafted to strategically communicate about development issues in a manner and with a purpose that can range from the more narrowly defined social marketing of individual behaviours and to the liberating and citizen-driven articulation of social change agendas (Tufte 2001).

In conclusion, Tufte (2001) points out that the deeper philosophies driving EE can progress beyond simple diffusionist and participatory philosophies that address a perceived lack of information rather than structural social problems. The drive is a commitment to social change, targeting individuals and communities based commitments to human rights and social justice. These still emerging third generation EE strategies are, furthermore, combined with a strong orientation towards collective action (Tufte 2001). My thesis argument subscribes to Tufte's principles and argument as we will observe in findings of the study in Chapter 7.

3.8 Conclusions

Chapter 3 explored three concepts that are significant to my PhD study: Social mobilization, DOI and EE. In the process, I attempted to answer sub questions on the medium and approaches used by stakeholders to reach children.

This PhD study has in detail explored social mobilization and community mobilization as strategic framework in community interventions. Social mobilization and community participation are complimentary and intertwined.

Although there are many theories that espouse to promote behaviour change, DOI stands out as a model that contributes towards the process of social change. The EE

strategy similarly contributes to behaviour change due to its power to persuade the audience.

This study however takes cognizance of the fact that besides the three concepts, there are other factors that contribute to this success. The conditions and structures within the school and the community contribute to the success of these interventions.

Chapters 7 and 8 discuss these factors.

Chapter 4

Handwashing with Soap

4.0 The Role of HWWS in Saving Lives

Hands are the main vector of diarrhoea pathogens and play a major role in the spread of respiratory disease. Human excreta are the main source of diarrhoeal pathogens causing shigellosis, typhoid, cholera and all other common endemic gastro-enteric infections, as well as some respiratory infections. Though there are many ways by which pathogens can reach new hosts, the most effective way of preventing gastro-enteric infection is to block the pathogens at their source. So, while secondary measures such as water purification and fly control may have an impact, far more important are the primary barriers of sanitation and handwashing.

Even though handwashing with soap is one of the most effective and cost-effective means of preventing the infections that kill millions of children in the developing world each year (see Figure 4.1 below), good handwashing practice is rare and handwashing practices are private and difficult to change. This thesis is based on the presumption that the most effective behaviour change programmes are those that are based on detailed knowledge of the practices, their context and the factors that hinder and facilitate them.

Among the various diseases caused by poor hygiene practice, diarrhoeal disease is the most deadly, especially for children, and consequently the WASH sector's primary focus is on reducing its spread. Respiratory tract infections such as colds and flu result either from inhalation of infected mucous droplets or rubbing the eye with mucous-contaminated hands. Data now shows that good respiratory hygiene (safe disposal of nasal mucous and hand washing) can reduce the risks of respiratory infections. A study by Luby et al (2005), for example, showed associations between hand hygiene and Acute Respiratory Infections (ARI) in children under five. When children's hands were washed at the recommended times

significant reductions in ARIs were noted. The association between hand hygiene and ARIs is very topical with worldwide concern over the spread of SARS (severe acute respiratory syndrome) in 2003 and more recent attention to Influenza H1N1 (commonly known as swine flu).

Fig 4.1 - Diarrhoea Reduction in Diarrhoea Morbidity by Intervention



Source: Fewtrell et al 2005,

Figure 4.1 demonstrates how critical handwashing is in public health as far as interventions aimed at reducing child mortality in Kenya. Diarrheal disease and acute respiratory infections are among the leading causes of child mortality (under five years), with about 16% attributable to diarrhoea and 20% to pneumonia in Africa (WHO 2006). Diarrhoea and gastroenteritis were the leading causes of hospitalization among infants and accounted for 6.3% of all causes of mortality in 1999 for children under five years. In the same year, ARI/pneumonia was the second leading cause of mortality after malaria and accounted for 12.2% of all deaths for children under five years (WHO 2006) KDHS figures for 2008-2009 show that for every 14 Kenyan children who are born, one will die before the age of five (see, KNBS 2010, 7). While this represents an improvement on the 2003 figures (figures also from KDHS), when more than 1 in every 10 children died before age five, it is a long way from the Millennium Development Goal to cut the under-five mortality rate to 1 in 30 children by 2015 (see UNICEF et.al 2011^{2,14}) for the MGD for Kenya). Kenya remains one of the 42 countries that account for 90% of all under-five deaths in the world. If Kenya is to achieve the 2015 Millennium Development targets to reduce under-five child mortality by two-thirds

(compared with figures for 1990), not only must access to water and sanitation increase, but so must the habit of handwashing with soap.

Children younger than five year old were selected as a target group in the Kenyan handwashing with soap initiative that was launched by the Kenyan government with other stakeholders in 2009 because, as mentioned above, this age group bears a disproportionate burden from diarrhoeal disease and ARIs. Children under five are considered a priority in government policy as published in the *Policy Guidelines on Control and Management of Diarrhoeal Diseases in Children Below Five Years in Kenya*, which aims to halve the number of deaths from diarrhoea by 2013 (MOPHS, 2010,4). What may be experienced as an inconvenient bout of diarrhoea for an adult may be fatal to a child. This strong impact on children has a ripple effect within their family and throughout their life. Within the family, time spent on caring for an ill child is time lost to other productive activities. Money spent on medical care for an ill child is money lost to other productive uses. People who suffer from frequent diarrhoeal episodes as children demonstrate symptoms of malnutrition (e.g., stunting and wasting).

Handwashing initiative was selected by the MoPHS in Kenya because latrine-focused campaigns are typically aimed at adults and households hence the need to come up with an initiative to focus on children. As such, the primary beneficiaries of the initiative launched by the Kenyan government are adults, but not the main sufferers from diarrhoeal disease – children (Fewtrell et al. 2005). Good personal domestic hygiene is considered important among a suite of measures aimed to reduce the incidence of diarrhoea among children (see 4.4 in the *Policy Guidelines on Control and Management of Diarrhoeal Diseases in Children Below Five Years in Kenya*). I focused on primary school-going children for this PhD because I consider them a special target group. School-age children are less entrenched in age-old practices than adults, and often far more eager to change, they are role models for young siblings, with considerable potential to influence their behaviour (see Section 2.1). A handwashing campaign can be effectively targeted at children, both under five years old and in-school, maximizes impact, and minimizes cross-subsidization of lower-priority groups as children are able to share messages they learn at school with their older siblings and parents once they get home.

By using a social mobilisation approach, my overall PhD study envisages to create a self-sustaining relationship between development partners and the community. A number of approaches have been used to promote hygiene in developing countries based on outputs – e.g., manuals produced, people trained, etc. – which do not usually translate to behaviour-change. Countries in the process of choosing or setting up hygiene promotion programs need to consider various options to determine the most suitable and cost effective hygiene approach based on each country context. A study by Jamison and colleagues (2006) indicates that the investment that goes in a handwashing program, if it actually achieves behaviour change, makes it cost-effective in comparison with other interventions in a community. (Jamison et al. 2006). The London School of Hygiene and Tropical Medicine through initiatives supported by the World Bank, UNICEF, USAID, and other stakeholder from private and public sectors, CSO and bilateral under the Global Public Private Sector Handwashing Initiative have and are continuously investigating and publishing on this subject.

Figure 4.2: Cost Effectiveness Ratio of HWWS Initiatives (US\$ per DALY averted)

Interventions against diarrhoeal disease	Cost-effectiveness ratio (US\$ per DALY averted)
Cholera immunizations	1,658 to 8,274
Rotavirus immunizations	1,402 to 8,357
Measles immunization	257 to 4,565
Oral rehydration therapy	132 to 2,570
Breastfeeding promotion programs	527 to 2,001
Latrine construction and promotion	≤270.00
House connection water supply	223
Hand pump or stand post	94
Water sector regulation and advocacy	47
Latrine promotion	11.15
Hygiene promotion (including hand washing)	3.35

Source: Jamison et al 2006, 41

Although establishing the relative impact (and thus relative importance) of different interventions is difficult, a review of various resources (current literature, electronic websites and networks, anecdotal opinions etc.) and, significantly, workshop papers consistently indicate that hand and personal hygiene, safe disposal of faeces and ensuring safe water at the point of use (HWWS) are the key hygiene interventions that will break the chain of infection. Investments to improve sanitation and hygiene in developing countries produce substantial health gains and have also been shown to yield important economic benefits (Peal 2010). Some papers also refer to the introduction of other hygiene practices (such as improved food

hygiene and solid waste management) once these three essential practices are established (Peal 2010).

Importantly, research is now showing that hygiene promotion can act as the means to create demand for sanitation and thereby increase coverage. Thus, in addition to increasing the health impact of WASH (Water, Sanitation and Hygiene) programmes, hygiene promotion also has the potential to increase sanitation coverage. Of particular relevance for this thesis is evidence that shows that focusing on hygiene promotion is the most cost-effective way of reducing diarrhoeal disease amongst children (Peal 2010). Many water supply, hygiene and sanitation improvement programmes implemented in the 1990s introduced a hygiene education component, but it was commonly treated as an after-thought that tended to use didactic methods and concentrate on health benefits alone. This was part of what became known as a 'top-down' approach, and the vast majority of the evidence shows that this was largely ineffective. Consequently such approaches are now considered out-dated and they have generally been replaced (Peal 2010).

Behaviour will only change when there is a strong and sufficient motivation. In handwashing, these motivations can include disgust, fear, comfort, nurture, status, affiliation and attraction. The motivations that are most likely to get people practicing HWWS are disgust, affiliation (employing people's desires to do what others are doing) and injunctive local norms (trying to make it appear that HWWS is what everyone else does). Comfort and nurture may play secondary roles but fear, status, and attraction are less likely to be effective (Luby 2005). Employing people's strong desires to do what others are doing (affiliation) for example, using the power of injunctive norms and by trying to make it appear that HWWS is what everyone else does. Studies show that though beliefs differ, there is a high degree of similarity in motivations and a surprising degree of similarity concerning actual handwashing practices across Kenya (World Bank 2009, 30).

Changing deep-seated, private and culturally-embedded practices such as handwashing is a difficult and uncertain process. This thesis aims to contribute to the process of change by understanding the behaviour, its determinants and its context, so as to better locate the pressure points where public health and/or marketing efforts might make a difference.

In a report by Rosenweig commissioned by the World Bank documenting the process used to develop national partnerships to identify lessons learned suggests three key areas that may promote successful handwashing programs:

1. Establishing linkages between handwashing and other programs such as nutrition, water and sanitation in schools
2. Involving local government in training, planning and budgeting, and M&E
3. Developing guidance on the appropriate balance between mass media and interpersonal communication (Rosenweig 2008).

Apart from the observations above, the World Bank study revealed that more needs to be done to ensure the HWWS initiatives become sustainable:

- Creation of an enabling environment must be developed.
- A national policy framework put in place and, further, that it has translated into sustained action.
- National-level partnerships formed and functioning effectively.
- Increased decentralization to ensure implementation is through regional and local governments to achieve scale-up and sustainability.
- Adapting the public-private partnership for handwashing (PPPHW) methodology to the specific context of each country to ensure ownership.
- Non reliance on external funding and an effort to address the long-term challenge of securing funding for a HWWS program at scale.
- Establish monitoring and evaluation systems for tracking impact and costs to determine the most cost-effective implementation (Rosenweig 2008).

4.1 Prerequisites for School-based HWWS Initiatives

My paid employment over the last ten years has involved working very closely with MoPHS and MoE. I was involved in setting up structures to coordinate the national handwashing programme (see section 6.2) and coordinated a national Baseline and Consumer Handwashing with Soap study that was published by the World Bank in ‘Are your hands clean enough?’. This work, which preceded and is additional to my PhD studies, has involved working directly with schools. Some information cited in this section comes out of that collaboration. Information which has already been published is acknowledged, but other parts have not yet been published in any form.

In 2003, the government of Kenya undertook to implement Free Primary Education. The import of this was that more children were enrolled in public school with no investment in the infrastructure (including classrooms and sanitation facilities. Data published by the Economic Survey, 2006, indicate that primary school enrolment increased from 5.4 million children in 2001 to 7.6 million in 2005 (Economic Survey, 2006). Figures below indicate that the expansion of facilities has been slow compared to this growth in enrolment. The Economic Survey and School Infrastructural Management Unit (SIMU) reports indicate that schools in urban areas are the worst hit and especially those in the peri-urban or slums. The World Bank 2009 study cited data by SIMU 2006 indicating that the school toilet standards are way below the recommended international standards. A rapid assessment in public schools in Nairobi, Machakos, Kajiado, and Kiambu districts in 2004 revealed a toilet ratio of 1:64. The toilet ratio in Mombasa Municipality public schools is 1:333. This is way below the international standard of 1:25 for girls and 1:35 for boys with urinals (SIMU 2006). Are your hands clean study, which drew from the SIMU report, indicated that:

There is a lack of comprehensive data on the number of schools in Kenya with running water and handwashing facilities. However, an audit by the School Infrastructure Management Unit of the 1,041 schools revealed that only a negligible proportion had handwashing facilities (possibly as low as 5 percent). The rapid assessment mentioned above revealed that over 90 percent of schools in rural Kenya lack a source of safe water and do not have any handwashing facility. According to the same study, less than 50 percent of schools in Mombasa are connected with piped water system while 20 percent must use water from contaminated wells. This is despite the fact that the UNICEF Kenya Office has been working with the city council to improve sanitation in schools around the country over the years (World Bank, 42).

The World Bank (2009) noted that the state of these facilities is also of concern as they are in dilapidated state and always dirty. An observation of schools by the World Bank revealed the pathetic conditions of the toilets. "The toilet floors were soiled with faeces and wet with urine. Some had urine collecting in the corners, other had faeces on the walls. This poses a serious health risk for children considering that some children in rural areas go to school bare-footed" (World Bank 2009, 43). Several development agencies have come in to support the government such as through a project supported by European Union called School

Infrastructure Improvement Grant that has identified 1,041 schools as beneficiaries that will receive grant funding to develop facilities in Kenya covering 100 schools per district. The current architectural plans have incorporated handwashing facilities in the new plans. WHO and UNICEF are currently supporting programs that are in the process of providing water facilities to selected schools and incorporating software. CARE International is also working in Nyanza province to improve access to water in schools and implementing a handwashing initiative in what is referred to as WASH Plus Programme.

National Environmental Sanitation and Hygiene Policy, 2007 was prepared with the assistance of UNICEF and the World Bank. According to the Ministry of Education, handwashing falls within the scope of sanitation and hygiene. It needs to be packaged as such for acceptability, especially amongst MoE stakeholders. Therefore, handwashing campaigns in schools need to be integrated with other existing programs, such as deworming, school feeding program, environmental conservation etc. as recommended in the policy document.

The hygiene and sanitation policy recognises that effective educational systems must ensure that children are healthy and able to learn. Good health increases enrolment, reduces absenteeism, and brings the poorest and most disadvantaged children to school. These children—many of whom are girls—are often the least healthy and most malnourished. Initiatives for such children in Kenya include school feeding programmes, hygiene and sanitation initiatives that include sanitary pads provision to girls from poor families (UNICEF, 2007).

Effective school health programs developed as part of community partnerships provide among the most cost-effective ways for reaching school-age children, adolescents, and the broader community (UNICEF 2007). Also important—they offer a sustainable means for promoting healthy practices. School health is a major investment in a country's future and in the capacity of its people to thrive economically and socially (UNICEF, 2007).

Network for Water and Sanitation (NETWAS), UNICEF, and AMREF - in partnership with other stakeholders through MoPHS - have established initiatives in schools. These initiatives are, however, not specific to handwashing but to hygiene in general, and have been implemented through the formation of WASH, Health and Hygiene clubs in schools. The

organizations also coordinate seminars for leaders of these clubs and teachers. Their initiatives include (a) using leaky tins as alternatives to basins and taps in areas with a shortage of handwashing facilities; and (b) asking children to carry water in the morning to overcome water shortage in schools. However, HWWS has not been emphasized in most of the schools in the country and those that have tried to implement the initiative have either discontinued or are struggling with a myriad of challenges (World Bank 2009, 42-43).

During the period that I worked in the WASH sector, I observed that connections were missing between the school and the pupils' families, as well as between the school and key local groups and individuals. The findings of St Leger et al (2010) indicate that appropriate consultation and participation between these kinds of stakeholders enhances the health promotion activities in school and provides students and staff with a context and support for their action. St. Leger et al (2010) have evaluated and come up with a list of what elements contribute to the success of schools health promotion programmes. These include:

- Developing and maintaining a democratic and participatory school community where the management, pupils and local community members interact and support the initiative.
- Developing partnerships between the policy makers of both the education and health sectors to ensure collaboration between the two key ministries.
- Ensuring students and parents feel they have some sense of ownership in the life of the school and not just merely spectators or actors in a donor programme.
- Implementing a diversity of learning and teaching strategies that break classroom monotony of classroom teaching with innovative approaches.
- Providing adequate time for class-based activities, organisation and coordination, and out-of-class activities.
- Strategies that explore health issues within the context of the students' lives and community.
- Using a whole-school approach that involves all members of the school community rather than primarily a classroom learning approach.
- Initiatives that continue providing capacity-strengthening opportunities for teachers and associated staff.
- Creating an excellent social environment which fosters open and honest relationships within the school community and promotes respect and trust.

- Ensuring a consistency of approach across the school and between the school, home, and wider community.
- Developing both a sense of direction in the goals of the school and clear and unambiguous leadership and administrative support for the initiative.
- Providing resources that complement the fundamental role of the teacher and which have a sound theoretical and accurate factual base.
- Creating a climate where there are high expectations of students in their social interactions and educational attainments.

St. Leger et al (2010) also addresses issues which have the potential to inhibit health promotion development and sustainability in schools if not addressed systematically. The issues are:

- When school health initiatives are funded over a short project base, contain un-realistic expectations and/or do not take a whole-school approach.
- When initiatives need to actively involve all stakeholders, including the students, as a sense of ownership is essential for sustainability.
- When there is need and responsibility to provide the education sector with evidence about the advantages a health promoting strategy can offer schools in improving educational outcomes.
- When health promotion outcomes occur in the medium to long-term.
- When evaluation is difficult and complex.
- When health sector funding often risks distorting a health promotion approach to a traditional public health agenda of morbidity and mortality.
- When the education sector has certain language and concepts, which have different meanings to those in the health and other sectors, and vice versa.
- When time, partnerships and mutual respect are needed to build a shared understanding between the health and education sectors.

Unfortunately, most schools in developing countries do not provide appropriate handwashing facilities. Where these facilities are available, they may be poorly located, have insufficient hand washing materials, be inaccessible, or be improperly used (World Bank 2009). The same study looks at other challenges that school-based initiatives experience such as:

- Location of handwashing stations. For older children the handwashing facility should be located near the place where children defecate. For younger children, teachers may prefer to have the facilities located in or near the classroom so that they can supervise handwashing.
- Hand washing facilities may lack soap, or other hand washing agents and hygienic materials for drying hands after washing. Sometimes this is because the materials are not available and/or the school does not have the money to pay for them. In addition, handwashing materials such as soaps are frequently stolen, especially when the facilities are located away from the school building close to the toilets at places with little or no supervision.
- Access to the facility is important. Handwashing facilities may be inaccessible because they are locked for fear of theft. They may also be available but not usable due to a lack of water. In most cases, the available facilities may be inadequate as more children would be competing for their use during the short break. Inaccessibility may also be as a result of poor or no drainage system. These may cause the surrounding area to flood making it unfriendly or difficult to access.
- In practice, many hand washing facilities are also used for drinking water. If feasible, the facilities should provide safe drinking water. If this is not possible, children, teachers, and other school staff should be made aware that the water is not safe for consumption and that safe drinking water is provided at another location in the school or schoolyard. Also, attention should be given to water wastage, focusing on the closure of taps after use and the avoidance of unnecessary emptying of water basins and containers.

Other critical information provided and often requires demonstration is on how to wash hands with soap. Not all children know how to wash their hands correctly. Demonstrations and monitoring in school are useful to help children learn and practice the five simple rules of hand washing:

Step 1: Pour a bit of water on both hands.

Step 2: Put soap on hands.

Step 3: Rub hands together well and all over for about 20 seconds.

Step 4: Rinse off all the soap.

Step 5: Shake off water. Dry hands with a clean piece of cloth or in the air.

Children should wash their hands after using the toilet, before handling food and eating (UNICEF 2009).

Spot checks and studies have showed that lack of access to both piped water supply and soap, is a barrier to hand washing. “Tippy Taps” are simple and economical handwashing stations, made with commonly available materials and not dependent on a piped water supply. Tippy taps can be made from a variety of local materials, including cast off plastic containers, jerry cans or gourds.

Evidence indicates that in developing countries well designed and implemented initiatives, which have included a whole-school approach involving the physical environment, links with the health sector, and which have suitable policies and curriculum, have increased school attendance rates and reduced worm infestations (mainly through the provision of worm eliminating drugs), but have had minimal effects on sustaining students’ hygiene-related behaviours (Leger et al 2010).



Photo 4.1 Girl Washing hands at a tippy tap at Toi Primary School
Copyright: Rufus C.E. Eshuchi, 2011

4.2 Engaging Children in School-Based HWWS Initiatives

Early health programmes developed in the post-colonial periods in many African, Asian and South American nations' emphasized learning about personal hygiene. In many instances, when children learned (and sometimes still learn) about the importance of handwashing and using latrines or toilets, these facilities were not available in the school (Snel 2003). Partly because of this gap between what was being taught and what facilities were available, many of the 1980s water and sanitation programmes for schools focused on construction and meeting construction targets (hardware provision). As a consequence, many construction-oriented programmes did not sufficiently emphasize teacher training, the organizational needs of the school or the hygiene education needs of the children (software) - all crucial to effective use and maintenance of the water and sanitation facilities (Snel 2003).

Different approaches have been tried in different countries, ranging from the mere provision of facilities to hygiene promotion and broader environmental education. Valuable experiences exist on the development of children as potential agents of change within their homes and communities, on the training of teachers and other community members, and on the construction of separate school sanitation facilities for boys and girls as a means to increase enrolment and attendance of girls. Inevitably, working with schools requires an integrated holistic approach with collaboration among different sectors, addressing issues of health, education, nutrition and water and sanitation (Snel 2003, 23).

FRESH (Focusing Resources on Effective School Health) is a health initiative which promotes the focusing of resources on the school-aged child. The FRESH Start initiative was launched at the Education for all Conference in April 2000 in Senegal by UNICEF, WHO, UNESCO, and the World Bank (World Bank 2001). It is also supported by a number of other agencies, including Education International, The Partnership for Child Development, World Food Programme and partners from the private sector. The FRESH start approach defines three supporting activities that provide the context in which the interventions can be implemented. These supporting activities as outlined by Snel (2003) are:

1. Effective partnerships between teachers and health workers and between the education and health sectors;

2. Effective community partnerships that promotes positive interaction between the school and the community. This partnership is fundamental to the success and sustainability of any school improvement process; and
3. Pupil awareness and participation. Children must be important participants in all aspects of school health programmes and not simply the beneficiaries (Snel 2003).

The three activities described above fit in the social mobilization model that this study applied during implementation.

Another more recent approach developed by UNICEF is the life skills approach. A booklet on the subject was developed. The booklet includes lesson plans which can be used for the teaching of life skills-based hygiene education. The life skills approach focuses on the knowledge, attitudes and behaviours that support children in taking greater responsibility for their own lives. It focuses on promotion, among children, of positive attitudes and skills and on habits for risk reduction. Life skills education recognizes that it can be challenging for children to make healthy life choices, or resist negative pressures, or reduce risky behaviours (Snel 2003).

A more recent study supported by Unilever and carried out in 80 public and private schools in Nairobi County have revealed an improvement in the HWWS rate from 1% that was noted in the National Baseline study of 2007 to 12% (Karama 2011). The Unilever project dubbed “School of Five” suggest that over the last four years, initiatives by different players is steadily yielding results. When pupils who were asked about how they accessed information on hygiene and specifically HWWS, 35% associate their source of information to the “School of Five” activation programme, 31% associated it to parents, and 28% to teachers, while only 3% associated it to media including TV and radio. The study revealed that children made a lot of efforts to influence their siblings, parents and other relatives to adopt the handwashing practice (Karama 2011, 5).

A strategic communication plan for handwashing published by the Ministry of Public Health and Sanitation looks at the importance of child participation as key in the handwashing initiative. Borrowing heavily from the *Child-to-Lead Initiative* by UNICEF, the strategy cites the distinguishing characteristics of Child-to-Lead Initiative such as “the direct involvement of children in the process of awareness and promotion and the nature of their involvement”(Ministry of Public Health and Sanitation 2009, 7).

4.3 Conclusions

School initiatives are complex and do require proper planning to ensure success. That is why it is not easy to understand all of the complex ways health and education interact. Leger et al (2010) argue that not only does the provision of good education improve health outcomes, but also that actively promoting health in schools can improve both educational and health outcomes for young people. Multifaceted approaches are more effective in achieving health and educational outcomes than classroom only or single intervention approaches.

In Chapter 4, I have emphasized how HWWS is important in saving lives of children. Evidence worldwide has showed that it is one of the most cost-effective prevention method that exist in public health. I have also in this chapter showed the link between the health of school children and education. Finally, I have answered some of the research question in Section 1.3 regarding conditions necessary for initiating handwashing activities in schools by identifying pre-requisites that are key in promoting HWWS behaviour. These prerequisites include: Developing a participatory school community where all members interact and support the initiative; developing partnerships among stakeholders; fostering community ownership; and using approaches that promote diverse learning and teaching strategies. In addition, initiatives that strengthen capacity of teachers and associated staff; providing resources and creating a climate that fosters respect and trust while establishing structures that provide leadership to the programme are likely to enable success of the initiative.

Chapter 5

Puppetry: Instrument of Education and Amusement

5.0 Introduction

Puppets are magic! Children as well as adults relate to puppets and establish a truly interactive relationship with these inanimate objects. This chapter will explore how puppets are perceived as real people with feelings and values that they can empathize with. They are also a great way to teach social skills. These principles will then be related to HWWS and how puppetry can be applied to influence and sustain behaviour change among school children in Kenya. Little research has been published on puppetry in Kenya, so this thesis will use available research from other countries to illuminate the use of puppetry as a viable approach in communicating and promoting behaviour change.

5.1 What is Puppetry?

Puppet theater has always been a quirky, mysterious, often subversive, and sometimes peripheral art form, and the fact that it has had to constantly reinvent itself in order to survive is probably a good thing. (Dircks 2004, 142)

What is a puppet? The word puppet comes from the French word ‘poupee’ or the Latin word ‘pupu’. Both of them mean dolls (Gosh and Benerjee 2006). This is why in most literature, puppets are often referred to as objects or dolls. The date and country of their origin is unknown, but puppets have been used from early times in different parts of the world for a variety of purposes.

Scholars in trying to define puppets have come up with very diverse definitions. Tillis (1992) calls puppets objects that are given ‘temporal use’ of the external ‘vocal and motor’ powers,

the externality of which is of decisive importance (Tillis 1992). Sherzer (1987) goes further and suggest that puppets are performing objects. The inanimate object become animate through usually, the hidden activities of a performer who makes the objects perform – walk, dance, burp, fart and laugh (Sherzer 1987). The term ‘object’ refers to any inanimate object that is animated or in other words given movement and used in a performance. This therefore suggests that a puppet is something that is not alive which a performer can bring to life, not to imitate life but bring an illusion of life.

Why such diverse definitions? Is it because puppetry is not understood? The definitions vary due to the many uses puppets were used in different communities. The above definitions seem to agree at least on one thing; a puppet is an inanimate object. Blumenthal (2005) argues that trying to fix the limits of puppetry (and a puppet) is a hopeless exercise. The borders in comparison with other artistic forms like masks are misty and porous and elastic (Blumenthal 2005). This medium is evolving and will continue to attract the attention of scholars and practitioners. Puppetry is an art. It is a distinct form of dramatic expression with the help of little creatures called puppets, having varied degree of freedom of movement (Shah and Uma 1992, 4).

Subsequently I define a puppet as a visual metaphor, representing 'real life', but at the same time, it is one step removed from the ‘real world’. Puppetry begins by blowing the first breath of life into an ‘inanimate object’ and make it 'come alive'. Any object can be given this gift of life by the puppeteer. Puppetry is therefore the creative dissemination of information using a puppet.

What is the essence of puppetry? What is it that fascinates audiences and puppeteers about puppetry around the world?

Puppetry is rooted in ritual magic. ‘Primitive people’ long before the invention of writing undoubtedly made puppets. Puppets are copiously used in ancient dramatic themes and folklore, not merely to be manipulated ...but also as self-animated to talk and to sing, to dance and play, to fight and fly... It is a man’s ancient urge to recreate life. (Ghosh and Benerjee 2006, 17)

This suggests that puppetry is born in the impulse to create life; to imitate and maybe to try and understand God or whatever power is perceived to control life and death; to make our dreams real. The moment an object is given life, it becomes a puppet.

Ghosh and Benerjee (2006) point out that puppetry is as old as civilization dating back to 2500 BC. Puppetry is rooted in traditional cultures. Dircks (2004) explains that Puppets can be traced as far back as ancient Egypt, Greece, and Rome and are found today in cultures worldwide, across the Americas, Europe, and Asia. Many artists are trying to make this ancient art work in the modern world with considerable level of success. It is an ongoing and dynamic endeavour. Dircks (2004) confirms this when she states that:

In the twentieth century puppeteers sought to expand the role of puppet theater in modern society in many different directions: as a means of making popular entertainment, as art theater, as an educational tool, and as a means of persuasion. At different times and places puppeteers pursued various combinations of these goals, making "serious" drama, children's theater, promotional shows, commercials, political spectacle, films, and television shows (Dircks 2004, 128).

This suggests that puppetry has and is still evolving, with puppeteers coming up with sophisticated puppets and shows to reflect modernity of the art form. The evolution is not only evident in the sophistication of the shows but also expanding its application in different fields. Dircks (2004) suggest that the turn of the twenty-first century has witnessed the “renaissance” of the puppet theatre. This was evident in the United States of America in 1990s with a theatrical production of Disney's *The Lion King* which proved that a mask and puppet spectacle could become a runaway Broadway hit. During the same period, “Jim Henson Foundation's series of biannual International Festivals of Puppet Theater began to expose new audiences to the richness and variety of innovative theater” (Dircks 2004, 128). Dircks (2004) further asserts that generations of children have grown up watching and learning from Jim Henson's Muppets on television, and a new appreciation of puppetry as a theater capable of conveying “profound artistic, social, and political ideas, stories, and emotions had developed from the influence of Peter Schumann's Bread and Puppet Theater, which had begun in the 1960s” (Dircks 2004, 129).

But the appearance of a puppet renaissance is somewhat deceptive, for puppetry is an art that sees fit to renew itself continually, as new generations of performers, sculptors, painters, writers, and audiences discover the possibilities of playing with material objects in performance suggesting an ongoing puppet theatre revival. Puppets genre similarly is evolving with new and sophisticated types of puppets being designed and constructed for new shows.

5.2 Laugh, Learn and Inspire Imagination!

Puppetry is a special art, which knows no bounds. One advantage puppets have over other genres is its unlimited space and unrestricted character. Ghosh and Benerjee (2006) observe that puppets are not limited as blood and flesh actors who are restricted by their bodies. A puppet can reach beyond the possibilities and barriers of the 'real world' because of its creative construction.

The strength of puppetry is in its interactive quality and personalised approach, as the audience and the puppets (and the puppeteers) interact in the course of the performance. The level of interaction in some cases even makes puppetry appear better than other drama genres. "The puppet can indulge in exaggerations or distortions without being coarse or vulgar. In fact such elements become the case of fantasy, which is the overriding superiority over other dramatic forms" (Ghosh and Benerjee 2006, 17). In other words, part of the audience enjoyment comes from using their imagination and fill up some of the missing elements of the show in their own minds. As the prime objective of the HWWS puppet shows is to entertain and educate, this interactive element offers the audience a chance to contribute to the subject, question the messages and in a participatory manner reach a consensus on issues of concern. This is important as the school group/community is likely to take a positive step on such an issue since they feel they are part of the solution.

The puppetry workshop process that precedes a puppetry performance plays two vital roles in education. As an approach, puppetry performances develop the audience's social and cultural understanding by providing information and prompting them to question, reflect upon and make informed choices about issues that affect them. For the performers, it enhances their personal development. In schools, for example, the children's reading and writing skills may improve when they begin developing scripts, their creativity may be tested and teamwork

enhanced. Through performances, they learn to be confident, productive and overall happy children if they enjoy the experience. Lepley (2001) supports this assertion through her findings.

Puppetry helps students begin to develop risk-taking skills that will help them develop self-confidence. The use of puppets provides an opportunity for students to become comfortable exploring language and becoming expressive verbally. Research shows that students become less inhibited when they are hidden behind the puppets. Once students become more comfortable and less self-conscious, they are more available to begin exploring the conventions of the English language. (Lepley 2001, 2)

Although Lepley's (2001) study focused on language development, it reveals advantages of puppetry that apply to health promotion. For school children to become conveyors of health messages, they have to be confident and comfortable to discuss related issues. As they learn together on developing stories, constructing and manipulating puppets, they develop these skills that contribute to their individual characters but as a whole enhance the way they implement the health activities.

Lepley's (2001) study also found out that puppetry activities provided students with a varied learning environment that provided a chance for them to express themselves. As they learn in a fun atmosphere what puppetry brings to the classroom, students become relaxed and eager to explore what language and stories have to offer. Being able to express one-self verbally is crucial in communication.

McCarthy (2004), in her discussion of the role of facilitator in Theatre for Development, discusses the risk factor in performances. Puppetry workshops in my research employed a facilitation technique that followed the principals which McCarthy observes:

Participants need to be able to generate content and explore for themselves. Taking risks and experimenting and rehearsing for real life. We can facilitate this by providing structure and form for the workshop. To create a safe space where risks can be taken, we need to consider physical and emotional safety,

trust, integration among group members and the rules by which the groups operate. (McCarthy 2004, 5)

The central role played by the facilitator in puppetry is not only defined but also underscored by McCarthy as:

the main guardian of group safety, the facilitator has to be able to step back and monitor group's problem and progress. It is very difficult to do this while participating in an exercise, so your role is often that of a participant observer. By inviting the participants to explore the possibility for change in their lives, you are inviting them to take risks and are therefore responsible for their emotional safety. (McCarthy 2004, 6)

During my previous work experience with FPPS and CHAPS, I observed that puppets work especially well and provide excellent ways for children to work through their fears or vocalize their feelings through puppet play. Whilst older children may respond positively to puppets, it is likely that puppet use with older children will be a much more focused, shorter activity. Children often become more vocal when a puppet is at hand and can provide a way to engage even the shyest of children. Puppets can also be used to help give children a voice in group work. Children handling puppets are not afraid to talk or answer questions since the puppet is the one answering, it helps to remove the fear for the child concerned of getting the question wrong or giving a wrong opinion.

In other words, when a child speaks through the puppet, it is not the child who is perceived as making errors but the puppet and children find this liberating. Hence, puppets can encourage the pupils to experiment more with the language and “have a go” when they may have otherwise been unsure about things (Maloney et al. 2005) or not felt sophisticated enough to speak.

Puppets can be miniatures or life size, simple or complex; made with odds and ends or expensive materials; are suitable for the children or adults, university students or illiterates. Puppetry can be a hobby or a professional project. It is primarily an aesthetic experience and expression. (Shah and Uma 1992, 4)

These findings enhance the premise behind this PhD research that puppetry is a useful medium to promote handwashing with soap behaviour among children. Although not conclusive, the challenge lies in the messaging and the ideal character modelled in any puppetry performance would like to portray.

In their study on use of puppetry in classrooms, Wallace and Mishina (2004) find that young children can usually accept puppets as non-threatening, sympathetic friends. In common with the research of Maloney et al., the study by Wallace and Mishina indicates that when puppets become an integral part of the classroom environment the result is increased openness, self-expression, playfulness and compliance with teacher requests made via the puppets..

In a popular vein, puppets are widely recognized for their beneficial influence on learning and social development. They exert a powerful influence on children of all ages. Puppet language is unique in its ability to help teachers and children learn from one another, grow, relate openly, to be self-confident and self-expressive. Speaking this language, a teacher can personally transform common learning barriers—oppositional behaviour, negative moods, defensive attitudes - into a windfall of learning benefits and surprises. Children become more responsive and motivated. Teachers find themselves suddenly having fun, unable to wait for the next day. Teachers who keep themselves and their emotions at arm's distance in the classroom are suddenly enthralled by the impact of puppets and their children's response to them...Puppets call up in teachers and children something spiritual and vital to a learning process struggling to rise above itself. (Wallace and Mishina 2004, 2-3)

Despite the reticence by stakeholders to use puppetry in Kenyan school contexts, there is a long tradition of using puppets to help address development and social issues among adults in the country. In the development sector, puppetry as a powerful communication medium has made major strides. Family Planning Private Sector has trained puppetry troupes around the country that have played a major role in sensitizing communities in health and their potential to address sensitive issues in HIV and AIDS has been highly appreciated (Mwarogo 1996). During my work with FPPS, community members found it easy to discuss sensitive and what ordinarily is considered taboo using puppets. In most communities, issues related to sex are

never discussed in public. This became possible in HIV and AIDS campaigns using puppetry approach. CHAPS is sponsored by FPPS, an NGO founded on the principles of community based and participatory development, organizing, and self-help. The CHAPS program was part of a folk media initiative which included a neighbourhood mural and educational calendar program to raise community awareness of issues.

In addition to its folk media programs, FPPS/CHAPS puppeteers have also organized community clinics and programs dealing with issues such as diabetes education, living with AIDS, HIV testing and counselling, sanitation, social-economic empowerment, and human rights awareness. Each of the CHAPS puppet plays have been created from interviews and the personal experience of the puppeteers, many of whom came from or still lived in one of the many slums surrounding Nairobi (Riccio 2004). Apart from health, puppets have addressed governance issues, used in civic education, promoted environmental conservation, gender equality, etc. (Kruger 2007).

In the mainstream media, one of the leading media houses in 2009 launched XYZ on Citizen TV as an indication that although puppetry is not by any means the dominant means of communication in the country, its potential is recognized by some and has certainly attained a lot of attention. Although the program is wholly locally produced to offer political commentary through satire, it was actually initially inspired by Western rather than local influences (i.e. the British television show ‘Spitting Image’ and the French show ‘Les Guignols’). Although these are not school-based initiatives and do not address children, they show that puppetry is being taken seriously in some quarters and is facilitating candid conversations about topics that are often restrained due to political or social pressures.

My PhD study incorporated other folk media genres (poetry, song, drama) commonly used in Kenya and popular with school children in the performances. Research by other scholars supports my experience that puppetry can easily be combined with other forms of performance such as storytelling, dance, songs, poetry and drama.

Puppetry touches a variety of subjects – playwriting, literature, culture, religion, drama, production, acting, speech training, music, arts and crafts. This helps practically everyone who becomes interested in it to participate in puppetry (Shah and Uma 1992, 4).

The experience I had with FPPS as well as puppetry workshop and performances in this school initiative indicate that this integration of genres ‘spices’ the show and makes it more lively, interesting and captivating. The songs and stories, if chosen carefully from the local community, will help drive the messages home and will encourage audience participation

5.3 Why Puppetry in Kenyan Schools?

During the last two decades, puppetry is increasingly being used in Kenya to address health and social issues. In Kenyan schools, there was an attempt by FPPS in the 1990s to introduce puppetry to address environmental conservation issues with support from the British Council (see Section 1.2). This PhD study was tapping into the initiative that had begun in schools selected by FPPS, but applies a social mobilization approach to work with children and address hygiene and sanitation. Puppetry is increasingly being used to address health and social issues. This development is recent, because prior to 1990s puppetry was unheard of in Tfd in Kenya. A contribution that I make via this thesis is to explore the role of puppetry for development communications in Kenya as well as the process of establishing whether puppetry interventions can be an effective tool for promoting handwashing with soap in schools.

Of interest to this study is how effective puppetry can be when used by pupils in a school environment for promoting HWWS and similar types of health messages. Tambling (1990) provides some useful insights on the subject of performing arts in primary schools. He argues that the technical and skills aspect of arts work is the most concrete. In any group of young people, some will be attracted to the practical ‘making’ side and all will benefit from skill development. Art work is developmental and only by marrying creative work and technical expertise can real progress be made. This PhD research hopes to enable the participating children to learn the technical skills of constructing and manipulating the puppets while at the same time applying the creative side by contributing to the design of messages to promote handwashing with soap behaviour through writing scripts.

Skills’ training for performing music, drama, and dance is important. “There are practical aspects of stagecraft that can be learnt. Children enjoy making props, scenery and working on

costumes or lighting designs. Mask making, carpentry, puppet-making can all be built into an arts curriculum” (Tambling 1990, 10).

Children love to experiment with colour, mixture, form, shapes and movement. So they also love to dance, sing, paint and work. Puppetry gives them a chance to experience very many of these activities. Through puppetry, a child can have lessons in independent thinking, responsibility and developing his potential as puppetry includes puppet making, staging and acting as puppeteers.

Tambling (1990) believes there is also the sense of achievement and value to the end result especially if the activity is incorporated into a longer project involving both creative and interpretive activities. This area is most interesting because it allows the possibility of developing areas of craft work along professional lines so that the process of set design, prop making or puppet construction can reflect those developed in professional theatre.

If possible, it is very exciting to let the craft aspect of a project ‘feed into’ the creative ideas of a project, so that the practical aspect does not merely service the creative side. Poster designs can influence set design which in turn can affect drama improvisation. ‘Learning about’ can be replaced by ‘learning through experience’. Children can understand the authors’ intention and will be able to evaluate the skills of the performers and technical crew if they have taken on those roles themselves. (Tambling 1990, 10)

What Tambling wrote almost three decades ago on performing arts work more generally is still very applicable to puppetry as an art form. All genres of performing arts require a constant need to improve, gain new skills, try different ideas and generate new techniques. Although very little has been documented in Kenya on the effectiveness of puppetry in schools, we can borrow from literature published elsewhere on the same or related subject. This study also hopes to contribute towards filling the existing gap.

Working with puppetry in schools to address health issues can be a rewarding and meaningful partnership. Sturz (2009), who is studying the effect of puppetry with American school children, concurs with Tambling when she writes:

Puppetry addresses the multiple intelligences by tapping into the different ways in which students learn. By weaving together various curriculum areas in an imaginative and entertaining production, you can move your audience (and yourself) beyond learning into understanding. We are privileged to influence the development of young minds through our magical art form. If we are successful, we can inspire the next generation of puppet artists to express themselves through this deep rooted and beloved tradition. (Sturz 2009, 6)

Puppetry therefore plays multiple functions in schools. It is not only entertaining but promotes understanding of the subject being discussed, and possibly more so than many other techniques. Sturz (2009) also suggest that this artform contributes to the development of young minds while at the same time enhancing creativity. Sturz (2009) adds that children learn by talking, both to the teacher and to each other. Talking about their ideas helps them clarify their thinking and develops their reasoning skills and such skills are required for the analysis of data, interpretation of results and conceptual development. Sturz (2009) reiterates that by questioning their deeds and actions, they are able to find their own solutions to problems affecting them and their own solutions are more likely to stick and translate into behavioural change than ‘imposed’ ones.

Although Sturz’s (2009) study does not necessarily focus on children’s development issues, there are pointers that children’s growth, health, wellbeing as well as intellectual and psychological development are linked. Shah and Uma (1992, 4) have alluded to the importance of creativity in child development. They believe that puppetry in particular helps to nurture talent and creativity.

A child’s creativity gets expression through puppetry. For children’s puppet plays, the adults need to provide opportunities, materials, guidance and encouragement. However, depending upon the age of the group, the expectations must be determined. Teachers should not focus on performance and perfection. Otherwise a greater joy derived from creation will be lost. Perfect technical communication skill should not be developed at the cost of creativity. Puppetry experience is full of spontaneity. A very practical value for a group is that the creative approach, since it depends upon improvisation, is a safe approach. Improvisation helps to overcome practicality and difficulty.

However, being creative should not be mixed with being chaotic. It requires planning just like formal teaching but of a different kind. (Shah and Uma 1992, 54)

In their unpublished work in United Kingdom schools, Maloney and colleagues write extensively about how puppets benefited both teachers and students by creating models for children to follow and encouraging shy children to speak out.

Another argument for using puppets in the classroom is they can be used by the teacher to mirror behaviours they want to promote. The puppet can model the way claims can be justified and reasons given for a point of view. There is no right or wrong way to use a puppet but teachers have found it valuable to give the puppet a distinct character. If the character is kept consistently by the teacher then children can be allowed to take over using the puppet as they already know what the puppet is like; they don't have to invent a new character. (Maloney et al. 2005, 27)

Puppetry's use in formal education, no doubt is limited, but it's potential as an educational medium for folk education in non-formal situation needs to be fully explored and thereafter implemented. Countries like the USA, Russia, France, Sweden, Germany, Hungary, Poland and Canada among others have recognized the potential of puppetry and are using it successfully in schools, giving it the status of human theatre (Shah and Uma 1992, 4).

As a health communications practitioner of over 10 years' experience, I have witnessed attempts in countries like Kenya to introduce puppetry in a formal classroom setting not only being resisted but its potential underestimated. FPPS attempts to interest the Kenya Institute of Education, which is the curriculum development arm of the Ministry of Education, has to date yielded no positive results.

This can be considered a clear under-use of the potential of puppetry, given that it is a medium that is both mystifying and captivating. Zuljevic (2005) states that people of diverse culture have used puppets for centuries, finding almost magical power in their capacity for creating open, honest, and trustworthy communication between a puppeteer and the audience. A puppet therefore does not only create the appeal but

plays a big role in establishing rapport between the parties, and can blur the cultural, language, racial, class barriers that may exist in a community.

I have found out that no matter what culture children belong to, or what language they speak, they play with their puppets freely, using their hands, thoughts, language and feelings, and they develop lasting friendships that are beneficial for their further development (Zuljevic 2005, 37).

Another potential benefit of puppetry in the context of schools is that it is a popular and yet cost effective medium. This can be seen in the fact that long before 1907, puppetry was threatening the livelihoods of actors. It is a measure of the art's popularity, and the insecurity of human performers, that when puppets arrived in Paris in the 17th century, and by the 18th century, French stage actors were complaining about the competition (Schechter 2003). "A cast of puppets cost almost nothing to maintain and if earnings are low in one location, a director can pack his or her *troupe* into a trunk and move on to another street or town, as many inherent puppeteers did" (Schechter 2003, 35). The message from a business standpoint is that puppetry attracted healthy audiences but with comparatively low costs compared to those involved in feeding, transporting and paying the salaries of live actors. All a puppeteer needs is a suitcase to pack in the puppets and props and move on. Shah and Uma (1992) agree with the cost effectiveness of puppetry in non-formal settings as well: "Research studies point out that puppetry is effective for imparting non-formal education among different groups. Puppets are economical in terms of time, money and energy as compared to other aids based on technology" (Shah and Uma 1992, 62- 63).

In an African context, there has been a long history of puppetry for a wide range of purposes, from ceremonies in secret societies and ethnic groups, healing and hunting ceremonies, ritual dramas, and entertainment. The traditions have not been well documented, although Dircks (2004, 142) notes that European puppeteers in the early 20th century who observed African, Asian and Native American puppet performances felt 'a renewed sense of puppet theatre not only as a commercial entertainment as a cultural, spiritual, and educational medium; and a sense that these older practices and purposes of puppet theatre could be pragmatically combined with any machine age innovations yet to come'. Personally, I have observed over the years that I have used puppetry in education that puppetry is more popular in West Africa and Southern Africa where it has evolved and is extensively used in development. In Eastern

Africa and Kenya in particular, puppetry can be traced in most communities along the coast but there is no documentation on its origin. This thesis adds to the limited literature about puppetry in Africa, albeit with a focus on Kenya and health education in Kenya.

5.4 Types of puppets

Puppets can be of different types, sizes, shapes and made of different materials depending on how they will be used or presented. The most common are glove/hand puppets, string puppets, rod puppets and shadow puppets. A combination of two or more types of puppets during construction is possible such as a rod and hand puppet.

i. Hand puppets - Hand puppets are manipulated by the puppeteer's hands for example glove puppets, muppets (mouth puppets) that open and close their mouth, finger puppets. They are small and are commonly used for a small audience.

ii. Rod puppet - Rod puppets are held and moved by rods or sticks made of wood or wires, which are attached below, above or behind the puppet. The rods help the puppeteer to manipulate the hand and arm movement of the puppet. Rod puppets are usually quite simple in structure. The number of rods is dictated by the number of parts that need to be moved.

iii. String puppets - String puppets usually referred to as 'marionettes' are operated by strings. It's said to have originated from Europe during the time when Christianity was spreading. They began by forming stringed puppets called Mary.

The type of puppets that were constructed by the pupils during my project was not pre-determined. It was based on their own characterisation (after developing the script) and how they wanted to portray the characters.

5.5 Integrating Puppetry with other genres

Puppetry is therefore a good option as a communication approach to be used for addressing health and social issues in developing countries that are grappling with many issues that need to be addressed with resource constraints because of its cost effectiveness. I borrowed heavily from the FPPS model that emphasizes participatory approaches as well as combining

puppetry with folk media. In this thesis, folk media is defined as the use of culturally based performing arts such as drama, music and dance, poetry and storytelling to reinforce and clarify messages.

The FPPS was not the first organisation to use the Participatory Education Theatre (PET) model (PET) to promote HIV/AIDS awareness in Kenya (Chamberlain et al. 1995, Mwansa and Bergman 2003), Nor did it pioneer the use of folk media for community education, sensitisation and development in Kenya, since such traditional media have been used for such purposes for the past three decades. However, the FPPS experience is particularly relevant due to its use of puppetry and folk media. PET is an education-entertainment (EE) model for community education and consensus building. It draws from the basic principles of theatre, drama and folk media, but makes performances socially relevant and accessible to all people and their communities. Engaging in a performance allows the audience the opportunity to 'safely rehearse' the consequences of attitude changes, and thus facilitates the making of these changes.

PET as a theatre model draws from the community's pool of knowledge. It is issues based and can be a lobbying and mobilization tool. In transforming the audience (spectators) from passive observers to active actors or players through the dramatic action, the target community is enabled to develop a critical awareness and analysis of its problems for a collective community action (Eshuchi et al. 2008).

PET, moreover, gives the community an opportunity to *shout! and shout!! and shout!!!* and by shouting, the silence is broken and the process of change begins. This is necessary at the community level where taboos, religious and cultural inhibitions inadvertently or advertently impose or impede discussions on some of the thorny issues related to reproductive and health. In this way PET is flexible and adaptable. It is democratic and participatory. It is transforming as it creates avenues to debate and investigate issues that concern or affect us. (Eshuchi et al 2008, 5)

Folk media, planned and produced by community members, is an alternative method that arouses them to verbalize their own perceptions of their needs, problems and their ideas on how to cope with challenges in their situation. The use of folk media must be understood as a

complementary communication methods to other methods such as media through radio, television or print materials; person to person and group meetings. However, in promoting health messages, it is also an alternative to the paternalistic, elitist, urban based media sources, planned and directed by powerful policy makers and sophisticated media producers who assume they know the right direction for development and changes needed by those they see as ignorant villagers. In previous research, I have shown how such remote sources often serve to alienate and isolate the villagers from the sources of power and decision-making. The alien language, difficult messages, the complicated and expensive technology confuse the audience and at best reduce them to inactive consumers who have few ways of giving feedback to express their wishes, or influence the content or method of presentation (Eshuchi et al. 2008).

The FPPS model uses a narrator/facilitator. The role is played by an individual defined as the link between the puppets and the audience. *Narrator* - because we hear most of the story through this individual. He or she introduces the show, leads us through different scenes revealing to us the plots as they unfold. He/she can take us forward or backward depending on how the plot unfolds. *Facilitator* – because the individual playing this role spurs the discussion as he plays the role of a catalyst or if you like the ‘devil’s advocate’ (Eshuchi et al. 2008).

As puppet show used for participatory education is inherently designed to be participatory, the facilitator plays the crucial role of linking the audience with the puppets to ask questions and provide solutions to the problem/issue being addressed. This role calls for innovation, ingenuity, cunningness and resourcefulness. There are several techniques a facilitator/narrator uses to ensure the audience is involved in the community performance. This may include music, dance and verse; telling stories; asking question; soliciting for comments; and seeking opinion and solutions.

A facilitator is like the driver; he/she controls the show, varies the pace, stimulates discussion, and ensures the right answers are given. The show should never be left hanging. The facilitator must skilfully sum up what has been said (or not said) to ensure the audience leaves the venue with a solution to the issue(s) at hand (Eshuchi et al. 2008). It is however important to ensure that the role of the facilitator is flexible. He or she should besides communicating his/her ideas, gather information about the community and people and

interpret it. A sustainable combination of interpersonal and group dialogue needs to be worked out to make puppetry effective.

A number of scholars have explored importance of participatory theatre in community development. Sloman however explains that the participatory nature of theatre works at different levels:

Theatre can be participatory in numerous ways. It can be directly made with a community to explore issues and topics that are related to their lives. It can be discussion theatre, where the audience is encouraged to have active discussions about elements of a theatre piece during or after the theatre performance. It can be forum theatre, where the audience is invited to enter the action of the theatre, to change or challenge what is happening in the story (Sloman 2011, 5).

One major challenge theatre in development faces is sustainability. Implementers often believe that once a group has been set, it is possible that even when the project ends, it will be sustainable. Sloman argues that “key strategy to address this issue of sustainability is finding opportunities to build capacity among theatre groups. This can include train-the-trainer and training and mentoring at all levels of the project, including planning, development, management, M&E and technical skills related to theatre” (Sloman 2011, 11).

5.6 Conclusions

In sum, puppetry has the advantage of non-threatening realism, impact and cost effectiveness. Puppets are more portable and easier to accommodate than actors. Several, or if necessary, one puppet can represent a whole cast of characters. In addition, puppets can easily mobilize people and deliver strong messages without offending or frightening the target audience. As an interactive media, puppetry can open up sensitive topics and allow for questions, exchanges and discussions between the puppets, puppeteers and the audience.

Puppetry is a mimetic art. It holds up a mirror onto society and gives people a chance to look at themselves objectively, from a different point of view, while also enabling them to laugh at themselves. Moreover puppetry is less threatening than life acting, is non-partisan and can represent people from all walks of life. Puppetry can also be used to break down racial, social

and political barriers and stereotypes because it mirrors, represents and often exaggerates aspects of human behaviour. This makes it an ideal medium by children for children.

Puppetry can be effectively combined with other folk media genres. The integration does not only make puppetry interesting but enables children to contribute to the show as they fuse popular genres they relate to with puppetry. However, it is important to ensure that strategies are put in place to support community groups at the end of projects to ensure there is sustainability.

Chapter 6

The School Environment

6.0 Introduction

WASH in Schools [Water, sanitation and hygiene promotion in schools] the use of square brackets indicates that you have added these words, which weren't in the original text, supports global efforts to realise our vision of a world where all children go to schools that provide a safe, healthy and comfortable environment where children grow, learn and thrive. WASH in Schools improves attendance, health and cognitive development, increases girls' participation, establishes positive hygiene behaviours, offers the opportunity to introduce better WASH practices in families and communities and addresses issues of inequity and exclusion (UNICEF 2012, v).

In this chapter I, explore factors that will enable a handwashing with soap initiative to succeed in school environment base on other studies, lessons learned and expert opinions. I attempt to discuss and other one of the key questions: How does the school environment influence or shape the handwashing behaviour of children? The chapter commences with a discussion of the conditions of sanitation facilities in Kenyan schools and how this may promote or hinder handwashing with soap behaviour. I then explore what programmes and activities in schools have been seen to promote handwashing with soap behaviour and reflect on how the initiatives help to develop the children competencies in health.

6.1 State of Sanitation Facilities in Schools

In order to encourage sanitation improvement in schools globally, WHO and other key stakeholders in 1995 convened an Expert Committee Meeting on Comprehensive School Health Education and Promotion. The Committee since then has made recommendations on

policy and action steps that international, national and local organizations should implement to improve the health of pupils, school staff and families through schools and communities (WHO 1996, 4).

Children have a right to basic facilities such as school toilets and safe drinking water. When these facilities are provided, children learn better and can bring concepts and practices on sanitation and hygiene back to their families. The basic principle that underpins this thesis is that schools can play an important role in bringing about behavioural changes and promoting better health. As Chapter 4 has indicated, improved hygiene practices are essential if transmission routes of water- and sanitation-related diseases are to be cut. Improvements in facilities must go hand in hand with hygiene behaviour change and practice, if the transmission of disease is to be prevented.

Rapid action is required—far too many schools have poor hygiene conditions or do not have water, sanitation and handwashing facilities at all. While worldwide statistics are still scattered, recent studies show that in many countries more than half the primary schools do not have safe drinking water on the school premises or any type of toilet or urinal let alone handwashing with soap facilities (UNICEF, 2007).

As mentioned in Section 4.2, schools are critical intervention settings not only in developing countries but all over the world. The Committee of Experts observed that:

School age is a critical time in the development of a human being, and the school setting provides a strategic point of entry for improving children's health, esteem, life skills, and behaviour. In addition to providing a site where interventions that promote health and prevent many of the specific diseases noted above can be implemented (efficiently and economically, schools can provide the setting to introduce health information and technologies to the community and can lead the community in advocating policies and services that promote health (WHO 1998, 6)

Most of Kenya's Primary schools often suffer from non-existent or broken, dirty and unsafe water supply, sanitation and handwashing facilities. There are very few schools with clean and well maintained sanitation facilities. Efforts by organizations like UNICEF, Care

International, AMREF, Plan International and World Vision to provide hygienic facilities under the WASH program are like a drop in the ocean, as they cover less than 10% of all the primary schools in Kenya (UNICEF 2006). Apart from a few urban schools and a small percentage in the rural areas, schools usually have toilets or latrines that are not adapted to the needs of children, in particular girls, as well as unhealthy and dirty classrooms and school compounds.

Nahar and Ahmed's study, which focussed on menstrual hygiene for Kenyan schoolgirls, provides insights that are relevant for HWWS as part of hygiene programs for schools. "Therefore, national and sectoral policies and budgets must prioritize School Sanitation Hygiene Education in terms of the need of hardware and software. If all schools are to have safe water, sanitation, and hygiene education by 2015, current best practices must scale up rapidly, applying principles of sustainability, decentralization, participation, partnership and policies" (Nahar and Ahmed 2006:2).

My own observation in my position as the former National Handwashing Coordinator for Kenya under Water and Sanitation Programs similarly found that the provision of water and sanitation services needs to be accelerated urgently together with sustainable operation and maintenance, meaningful hygiene education, and consistent use of facilities by all children and teachers.

In addition to the poor state of most facilities, the number of toilets and handwashing facilities is a problem in Kenyan schools. The latrine (pit toilet) to pupil ratio in some schools is as high as 1:150 compared with the recommended public health standards of 1:25 for girls and 1:35 for boys. Almost 80% do not have handwashing facilities conveniently located near the sanitation blocks (Ministry of Health, July 2007). Drainage is poor and some of the overall toilet facilities especially in the rural areas are in very poor conditions. More often than not, the toilets are dirty and children are forced to clean them only as a form of punishment. More often than not, the toilets are dirty and are only cleaned when children are forced to do so as a form of punishment.

In many schools, the health clubs, children's parliaments or similar groups take the lead in organising children to keep facilities clean and to ensure proper use. For example, the health clubs sometimes look after the

handwashing facilities by cleaning the site, making sure there is sufficient water and soap (or ashes), and making sure the drainage works properly. The cleaning of the toilets should also be the responsibility of the users themselves, not only left for janitors or paid cleaners. For instance, students from higher classes can be responsible for organising children in shifts for cleaning the latrines. Within the class, the tasks can be divided over the week among teams of boys and girls. The students can also be responsible for locking and unlocking the latrines each day if that is necessary. Leaving the doors unlocked during the night may invite outsiders to soil or incorrectly use the latrines (UNICEF 2007, 71).

It is the premise of this thesis that participatory planning is critical if sanitation and hygiene activities have to take root in the schools. This relates not only to planning construction, but also to maintenance, use and management. Those directly concerned are teachers, students, school heads, parents, and the school management committee and parent organisations. In some Kenyan schools, this has led to situations where the toilets are not used by children, are not cleaned, and eventually fall into complete disuse (UNICEF 2007).

6.2.1 Child-friendly Facilities

Child-friendly facilities are easy and pleasant for children to use. Some things to take into account are:

- Water and soap should be available for children to use in or near the toilets.
- Toilets and urinals need to be well ventilated.
- For all facilities, access must be open and clear, while ensuring enough privacy, particularly for girls (UNICEF 2007, 58).

There are many different types of facilities for handwashing. In view of the desired use and sustainability of the facilities, careful selection is required. Based on my observation, in most Kenyan schools, the facilities are constructed or bought without considering the user. Handwashing facilities come in a variety of shapes. If possible, handwashing facilities should be strong, easy to clean, not break easily or be easy to steal. The supply of water for

handwashing is crucial. When there is no direct supply by (stand) pipe or pump, water should be stored close to the facility.

Soap—or its equivalent, such as ash—must be provided and located where children can easily reach it and where it cannot be lost. Organising soap and its use by children can be difficult. This is a subject that deserves much more attention (UNICEF 2007). This study will attempt to address the issue of availability and use of soap for handwashing in Section 7.1.6.1. This is and will remain a challenge for most schools. Even the schools with WASH programme have not been able to overcome these challenges. During my past position as the National Handwashing Coordinator, I noticed that in most cases, the sanitary facilities have been constructed based on the plans drawn and approved by the national authorities. However, the condition of the facilities, availability of water and soap is not always guaranteed. Without proper drainage, surroundings become muddy, discouraging children from washing their hands and attracting mosquitoes. After a short while, the facilities become run down and fail into a state of disrepair. Given that Kenya is classified among the most water scarce countries in the world, many schools also focus on avoiding water wastage, especially in areas where there are acute shortages of clean water.

6.2.2 WASH in Schools

“WASH in Schools” is concerned with water, sanitation and washing facilities in schools along with hygiene education. A school with adequate WASH has a functional and reliable water system that provides sufficient water for all the school needs, especially for handwashing and drinking. The school must also have sufficient number of toilet facilities...that are private, safe, clean and gender segregated. The school should have several handwashing facilities, including some that are close to toilets to facilitate handwashing after defecation (UNICEF April 2011, 6).

In an attempt to standardize and provide guidance on a minimum package for WASH initiative in schools, UNICEF together with stakeholders has provided guidelines on implementation of the school programmes. The paragraph above summarises what the package should have. However, it is important to note that schools that are implementing the

initiative operate at different levels. The difference is mainly dictated by availability of resources as well as the location of the school. Schools in the urban areas, especially those managed by the local authorities tend to have better facilities than those in the rural areas. Even within the urban areas, there are also disparities based on schools in the suburbs and those in peri-urban (or slum) setting. Disparities are also glaring in private versus public run schools. Even in this category, you will find high cost private institutions that have better facilities than the private low-cost institutions. My findings (reported in Chapter 7) expose these disparities as facilities. For example, Premier Academy and Boonhouse are at the extreme ends despite both schools being classified as Private.

6.3 Current School Programmes

Studies by UNICEF indicate that historically health education or health promotion in Kenyan schools tended to be based on a topic approach within the classroom, which meant working separately on issues such as smoking, alcohol use, physical activity, healthy eating, sexuality and relationships, safety, mental health, etcetera. This is still reflected today in some of the initiatives in schools on, for example, obesity or substance use. This can be problematic or ineffective as such approaches are sometimes based on assumptions relating to human behaviour, which are difficult to justify and not supported by evidence (UNICEF 2007).

First of all it is known that all the 'topics' interact and are not separate at the behavioural level. For example, teenage sexual activity can be linked to alcohol/drug use. Second, there is a risk that health will be seen solely at the level of the individual and his or her relationship to the topic being explored, when in fact the social environment is very often vital in determining behaviour. Third, there is a tendency within the topic approach to assume that human behaviour is completely based on knowledge and reasoning, and treats the important dimension of the emotions as a separate topic, when in fact mental and emotional aspects are integral to all the health issues (UNICEF 2007).

This is not to say that a topic approach has no place in school health education or in the promotion of health in schools. It is an argument for making sure that if a topic is being explored, that possible connections are made to other topics in the classroom and in the wider life of the school. This can enable students to consider the issue in the reality of the social and environmental contexts of their lives. There are uniting themes that can cut across topics at a

theoretical and pedagogical level. The life skills and competencies, which we wish young people to develop in the context of health promoting schools, can be important and common to all health topics. For example, the skill of being assertive or having the ability to critically reflect on their role as individuals in a complex society with conflicting values about health (UNICEF 2007).

UNICEF notes that WASH in Schools programmes face problems with the skills and motivation of the teachers. Common problems include: limited training of teachers, rapid teacher transfer, lack of interest/motivation among teachers and head teachers and full teacher schedules (UNICEF 2007).

As Kenya's former National Handwashing Coordinator, I noticed that one approach for dealing with the lack of teacher motivation for WASH in schools programmes is to start with the schools where the head teacher and teachers are more interested. Another way to help motivate teachers is to begin by having NGO or private sector staff initially guide the programme and give sample lessons over a limited time period. The idea is that teachers will gradually take greater interest when they see results in the form of a neater school and cleaner children. The support of the Education Department is crucial in motivating teachers.

6.3.1 School Clubs

UNICEF 2007 noted that civil society agencies have been engaged in various activities promoting WASH in selected schools. There are cases where more than one NGO engages the same school at different times with very similar activities under different clubs such as "health club", "environment club", "sanitation club" and "hygiene club". This uncoordinated approach has made NGOs appear like they are competing instead of working for a common goal – to improve the hygiene and sanitation situation of children in the selected schools. The School Sanitation and Hygiene Education (SSHE) Policy has attempted to streamline the operations by encouraging NGOs to work through one outfit within the school. The policy also proposes establishment of structures at the district, division and zonal levels that coordinate these activities through the relevant public health officers.

The impact of the schools' health/hygiene clubs is very positive (Rop 2004; NETWAS, IRC and LSHTM 2007). The children in these WASH-related clubs help organize activities in the

schools such as ensuring that children wash their hands before eating and guiding groups of children responsible for cleaning around water points. They also help to reach into the home and community. Under the UNICEF/World Bank SOPO initiative, the children who head these activities are recognized as SOPO Champions.

Experience in some settings has shown, however, that the health clubs for children can be misused. It should not be forgotten that the clubs are often managed in badly equipped, sometimes overcrowded schools. The health clubs may be led by teachers who have received very little training and have limited experience or interest in using participatory methods to provide a platform for children to exchange ideas on an equal basis. Thus, children's clubs can become a way to exploit poorer children, poor girls in particular, as a cheap labour force to clean the school and its toilets. Another problem to guard against is that the club's members are given so much power that they can force peers to engage in cleaning activities or to join the club. Such problems must be avoided; bad clubs may be worse than no clubs at all (UNICEF 2007).

6.3.2 Scaling-up challenges

A number of CSOs working with MOPHS have over the last two years initiated small scale projects some on a pilot basis to try out approaches and activities to enable them reach children with hygiene messages. The greatest challenges the stakeholders face is on how to scale up these activities to a national level.

School health programmes are conducted in numerous settings and by a variety of individuals within a school. Ideally, they will not operate in isolation but coordinate internally and externally to provide a multifaceted approach to health promotion (WHO 1996). I have in explored in depth this approach in Section 4.2 of this thesis. The approach also is in line with WHO recommendations on what may aid school initiative to succeed in Africa. "A review of school health in sub-Saharan Africa reveals a focus on six areas: (1) increasing access to services, (2) focusing on targeted diseases, (3) involving the community in problem solving, (4) focus on extracurricular activities, (5) Child-to-Child activities, and (6) Curricular developments" (WHO 1996, 25).

To expand and scale up my PhD puppetry programme that I piloted, demand has to be strong among a wide range of actors—headmasters, teachers, and staff of local authorities and various government departments. They must be convinced and brought together to plan WASH in Schools interventions. From the beginning of the programme, partnership-building and the adoption of team approaches are needed (UNICEF 2007).

There are a number of considerations based on my experience and observation during the period I have worked in the WASH sector:

- a) Collaboration: Implementing WASH in schools in a comprehensive way requires the active involvement of a large number of groups and institutions. In Kenya, the parties to be involved may include the Ministry of Education, Ministry of Public Health and Sanitation, Ministry of Water and Irrigation, development partners (the World Bank WHO and UNICEF), civil society and community based organizations, the private sector and teachers' organizations. At community and school levels, it should involve the headmasters, teachers, students and their parents and community organizations.

Setting up a participatory WASH in Schools programme should begin with parents and community leaders through PTA. They should understand the value of the programme and be committed. The programme should be set up so that they can make decisions about design, construction and location of facilities. They should contribute at the beginning of the programme and help in monitoring, as well as taking part in special school events for WASH in Schools. They should also decide how to organise support for recurring expenditures such as soap, cleaning materials, repairs, and educational materials. It is expected that a WASH in schools programme will initiate a process of passing on health information and behavioural changes from school to household to community, or, in other words, from students to siblings, friends and neighbours (the Child-to-Parent approach)

- b) Lead agency: It was not always very clear who should be the lead agency. This confusion stemmed from the fact that Kenya Government Cabinet Policy documents mandates both the Ministry of Education and Ministry of Public Health and Sanitation to provide services to the public. WASH in schools is not normally central to the work of any single ministry or department. The MOE may be more concerned with education reform. MOWI may be more focused on constructing community water supply. The Health Ministry may

be more involved in curative medicine than in preventive health education programmes for children. Given this reality, one approach taken is to combine available resources under one agency and to demonstrate that WASH in schools can be important for the ministry or department to achieve other objectives. This is what has happened in Kenya with MOPHS coordinating a WASH Interministerial Coordinating Committee (ICC). Partners implementing WASH programmes have to come through the ICC. This approach has served several purposes. Firstly, the ICC ensures there is no duplication and “competition” among partners. Previously, partners would engage in activities, sometimes in the same schools. This would create an atmosphere where each one of them would be “fighting” for territorial success. Secondly, the ICC plays the role of a monitor. Every quarter, partners have to report back to the ICC and this has made them accountable. This ensures quality and maintaining standards plus uniformity across the programs. Thirdly, this approach has promoted ownership. ICC membership is drawn from all stakeholders from the national to community level. Once the ICC endorses an initiative, the beneficiaries feel they were part of the participatory process and support it fully.

My observation as the National Handwashing Initiative Coordinator showed that the nature of the lead institutions will, in part, determine the strategies for deploying WASH in Schools, and will bring certain advantages and potential problems.

- c) **Quality versus Quantity:** School programmes have existed for decades, and their number and coverage is expanding rapidly. However, the struggle to balance quantity and quality continues. Hygiene promotion is more than construction of facilities and accompanying software. In addition to sound construction with child-friendly designs, an effective WASH in Schools requires adequate planning, management, training and capacity-building, coordination among the institutions involved, and participatory education focusing on life skills. To succeed, WASH in Schools requires a strong focus on operation, use and maintenance of water and sanitation facilities in the school while also reaching out to the community and homes to change children’s and adults’ behaviours (UNICEF 2007). Agencies have provided the hardware required and some are promoting hygiene practices. Building the capacity of the communities and school management to maintain these facilities still poses a major challenge as programmes are scaled-up (UNICEF 2007).

d) **Child Participation:** Many agencies including UNICEF strongly promote children's right to express themselves and to participate in the projects that concern them. For this, adults need to open their ears and their minds. Furthermore they must ensure the participation of children is meaningful to the children themselves. School children, from their side, are involved in activities at the community level, for instance the promotion of community sanitation and hygiene. The WASH programme in Kenya schools provide good opportunities for boy and girl students to acquire new technical knowledge and skills; these include in some instances construction techniques such as the mixing and curing of concrete, branding of the facilities with hygiene messages etc. Construction workers and artisans are often not used to working and communicating with parents, teachers or children. However, many technicians appreciate and enjoy the extra dimension once the team approach has taken root (UNICEF 2007).

e) **Interrelationship between the Schools and Community:** The challenge is to make best use of the interrelationship between the school and the community for improved sanitation and hygiene. During my work in the past and currently, I have observed that links with the community are important for many reasons:

- Improving school sanitation and hygiene makes no sense if most children cannot practice hygiene at home.
- Children are in general highly motivated to improve conditions and practices at home and in their communities and thus can be excellent catalysts for positive change.
- School events (e.g. parents' days) and students' assignments (e.g. simple surveys in their homes, neighbourhoods and community) are excellent opportunities to raise awareness and initiate community projects on subjects such as environmental protection and improved water supply and sanitation.
- Schools need the assistance of parents and local administrations and organisations to establish and sustain good facilities. Other people in the community, such as the staff of water supply and sanitation programmes or health staff, might be involved in organising special activities and campaigns

6.4 Conclusion

“How can nations continue to make progress in the face of new or enduring problems? Educating children at school on health should be given highest priority, not for their health per se, but also from the perspective of education, since if they are to learn they need to be in good health” – Hiroshi Nakajima, M.D., Ph.D., Director-General WHO.

Primary schools often suffer from non-existent or broken, dirty and unsafe water supply, sanitation and handwashing facilities. There are very few schools with clean and well maintained sanitation facilities in Kenya. For any school to be considered to be child-friendly it must have a functional and reliable water system that provides sufficient water for all the school needs, especially for handwashing and drinking; with sufficient number of toilet facilities that are private, safe, clean and gender segregated.

This chapter noted the impact of the schools’ health/hygiene clubs as very positive. The children in these clubs help organize activities in the schools and also help to reach into the home and community. To scale up current programmes, there has to be strong partnership among a wide range of actors with one agency taking up coordination and leadership role. The social mobilisation as well as puppetry approach that I used in my thesis research has challenges that include determining whether to go for quality or quantities in order to meet the demand; promoting child participation to ensure their right to express themselves and to participate in the projects that concern them and strike the necessary balance to make best use of the interrelationship between the school and the community for improved sanitation and hygiene.

As indicated before, WASH in Schools will only work with genuine participation by stakeholders. Designs and technologies should not be determined only by contractors or administrators in central offices. It is very important to involve and consult a representative group from the school community during the planning, design and construction of the water and sanitation facilities at the school. The active involvement of children and parents can also be seen as a learning experience.

School health should be focused on (1) important behaviours and conditions that promote health or that prevent risk or diseases; (2) skills needed to

practice those behaviours or to address those conditions both personally and collectively; (3) knowledge, attitudes, beliefs, and values related to those behaviours and conditions; and (4) learning experiences that allow students to model and practice skills (WHO 1996, 27).

Chapter 7

Water and Soap is not the only Limitation

Don't give advice, give an example – Western Kenya saying

7.0 Introduction

Central in this chapter is the attempt to answer the study's secondary question: How effective is puppetry in promoting handwashing with soap behaviour among schools children? It additionally explores the experience of those who became involved in various ways with the puppetry activities, and identifies what contextual issues need to be addressed if puppetry activities in the school environment are to be effective in promoting handwashing with soap.

The chapter relies on the three forms of methodology that Sanders as components of ethnography. Sanders defines ethnography as follows:

An approach that may include observations, interviews and the documentation of "traces" that people leave as they go about their everyday lives. Ethnographic research overlaps with three other types of research. The first is contextual enquiry, a form of ethnography that is specifically focused on asking questions. The second is observational research, which entails simply watching users in their environments, without asking questions about why or how things are being done. The third is participant observation, which is a more intensive form of observational research that focuses on the researchers joining the culture being studied in order to better understand that culture (Sanders 2002, p. 8).

As explained in Chapter 2, ethnography is highly useful approach as it generates rich and detailed accounts of events related to the behaviour and characters of individuals. A careful analysis of these events can provide answers to issues related to attitudes, reasons for certain actions or lack of action, and responses to the proposed puppetry intervention.

Thus Chapter 7 analyses data collected during the study period and is structured in three sections. Section 7.1 reports the outcomes of basic observation research of schoolyard behaviours. Section 7.2 outlines the discoveries made through contextual inquiry, via interviews and focus groups. This section probes community understandings, knowledge and resources that will ultimately influence the success or otherwise of HWWS projects. It explores why HWWS practice is so low even when knowledge about handwashing is high, probes school community opinions about factors influencing HWWS practice and interventions, and identifies community resources and ideas for change. Section 7.3 discusses the findings of the participant observation of the process of introducing puppetry into the schools to promote HWWS into the schools and working with/observing the children at all phases of the project. It explores the effectiveness of puppetry in disseminating information on handwashing with soap in schools.

7.1 The Methodology of the School Structured Observations

My PhD study involved three schools namely – Premier Academy, Boonhouse and Toi Primary Schools based in Nairobi. I selected the three schools for my pilot puppetry workshops trials. Children involved in the workshops performed for other children to disseminate handwashing with soap messages. After the performances, I began with the help of research assistants observing and recording the children’s handwashing with soap behaviour after visiting the toilets.

The health club members responsible for WASH activities in the schools ensured there was water and soap at the handwashing stands early in the morning – a pre-requisite for ensuring that this was not an obstacle during the trials. As the puppet shows had already been performed and the children made aware the importance of handwashing with soap, it did not seem peculiar when they found soap and water already set at the handwashing station. In Toi and Boonhouse Schools, this generated a lot of excitement and enthusiasm on the first two days. We ensured the soap was continuously placed for almost four weeks (a week before the observations began).

The observations of the children’s HWWS behaviour were conducted over a two-week period in November 2011. Having ensured that the environment and conditions to facilitate

handwashing with soap behaviour among the children were in place, I set to observe this behaviour itself. I selected and trained two observers for every school – a male to observe boys and a woman to observe the girls. Both were positioned at discreet locations near the toilets to record cases of handwashing with soap among the children at meal break times during the fortnight. The observers were youthful, being in their early twenties, and this made it possible for them to sit and observe the goings-on without raising an alarm among the children. Only the teacher in-charge of the health club and the head teacher had been informed of this observational activity. We were therefore confident that the children did not know they were being observed. Table 7.1 below shows the breakdown of the children who were observed in all the three schools.

Observations were conducted two days a week for two consecutive weeks during tea break at 10.00 to 10.30 a.m. and during lunch break between 1.00 – 2.00 p.m. Observation sessions were conducted a day after the first performance.

For the purposes of this PhD, toilet refers to a block with a single cubicle with either a sit-down facility or squatting (Indian type) with a closing door. In some cases, the cubicle may be a stand-alone unit or in a block divided by walls. For Premier academy, all the toilets are located within the main building block with a main door at the entry and cubicles inside and urinals (in the case of boy's toilets) located in the open area next to the handwashing basins. Within the boy's toilet block of all three schools, there was a urinal facility that was either on the outside or inside, but with no door and roof in the case of Toi and Boonhouse. Premier Academy had all the toilets and urinals within the building block. This study did not count the urinals as part of the toilets.

Table 7.1: Numbers of children's behaviours observed in the three schools N=2205

School	Girls	%	Boys	%	Total	%
Toi Academy	442	(52)	408	(48)	850	(100)
Premier Academy	145	(39)	224	(61)	369	(100)
Boonhouse School	531	(54)	455	(46)	986	(100)
Total	1118	(51)	1087	(49)	2205	(100)

As Table 7.1 indicates, a total of 2205 children's behaviours were observed following their use of the toilet facilities during both the tea/snack break and lunch break

The observation captured five categories of the children's actions following their visits to the toilet facilities:

- Rinsed hands – the children who came out of the toilet and put one or both hands in water as if to wash but just wets one or both hands. Many pupils believe that this is adequate to remove the “little germs” they may have picked when they visit the toilet. This was observed among as a common practice among children who visit the toilet for a short call. The assumption is they have not touched their faeces and urine is considered harmless. This is an area that developers of messages may need to lay emphasis. The other reason why the children do that is to give impression to whoever may be watching their hygiene habits that they have washed their hands. When the pupil goes back to class with wet hands, it will be seen as if they have washed hence “passed the test”. Again messages should be designed to address this behaviour and ensure the children understand the correct handwashing with soap act is not for the teacher's benefit (or whoever else that may be supervising them benefit).
- Washed hands without soap – this is was an important observation to note as there is belief that washing hands without soap gets rid of germs. Current messages and the puppet shows emphasized the need to use soap to avoid infections. Although children interviewed agreed that washing hands with soap is critical in controlling diseases infections, they did not view health as a motivator to handwashing. Therefore messages aimed at portraying children who wash hands with soap as healthy do not resonate with most children. There are still some pockets of resistance or non-conformity of this message by a few pupils for various reasons. One major reason advanced by the children is the smell of soap. This is mainly when they are going to eat as the feeling is the “bad smell” affects their food. From the table, each school had a substantial percentage of those who washed without soap and this habit must also be addressed through messages and discussions they have after the show. During the Handwashing Baseline survey by the World Bank, some women also expressed similar sentiments. They said they do not like washing hands with soap before eating as the scent from the soap affects the food (World Bank 2009, 39).
- Did not wash hands at all – this group represent between 5% to 27% of children in the three schools. This is a substantial group that must be reached with messages constantly. A deeper analysis needs to be made to try and understand why they are not washing their hands at all even after they have just heard the message on how critical

it is to wash their hands. Are they physical or logistical barriers? What needs therefore to be done to reduce or eliminate those barriers totally in order to motivate them to wash hands with soap at the critical times (see 7.1.1 to 7.1.6).

- Did not see – as explained in above when discussing the error margin, this category is critical to observe as the children whom we did not see their handwashing actions are included in the total number analysed. It is therefore important we note their actions for various reasons. For example their movement from class to the toilet is in groups, rushed and too fast. What factors could be making them take these actions? Are they avoiding the crowding at the ablution/handwashing stations? Are they avoiding the crowding at the kiosks or food serving areas so they want to be a head of the group? Is it just a matter of wanting to finish these activities quickly so that they may have some time to play? Unfortunately, our study did not address these questions and we recommend future studies to explore and fill these gaps.
- Washed hands with soap – this is based on the actual observation by the research assistant on whether the pupil washed hands with soap. What is not taken into account is whether the pupil washed hands with soap correctly. During the puppetry workshops, facilitators took time to demonstrate the proper way and steps that must be followed to ensure one has washed hands properly. This I recommend should be an area for future inquiry.

Besides observing the handwashing practices, the PhD study also sought to find out other variables that would either promote or hinder handwashing practices. The following are some of the variables studied and this analysis attempts to look at how the variables influence handwashing practices:

- Number of toilets for boys and girls
- Total population of the school
- Proximity of handwashing facilities to the toilets
- Number of handwashing stations
- Type and state of the toilets
- Availability of water and soap at the facilities.

It should also be noted that all three schools that were observed have a kitchen where food is prepared and most of the children are served warm food from the kitchen facilities. A small proportion of children bring packed lunches from home. In all the three schools, there is a designated room/space within the school where children are required to have their meals. No one is allowed to eat their food outside the designated area.

7.1.1 School population

The three schools have a fairly small population compared to majority of schools in urban Kenya. Most public schools in urban areas have an average of 1400 pupils. Even though the three schools' total population is small, Premier and Toy have more than the Government of Kenya recommended ratio of toilets per the pupil's population, while the third school, Boonhouse, is yet to meet that standard. The recommended public health standards are 1:25 for girls and 1:35 for boys (Ministry of Health 2007). Table 7.2 summarizes data on school population, ratio of boy and girls, number of toilets and the ratio to boys and girls during the study period.

Table 7.2: School population and Toilet Ratio

School	Boys	Girls	Total
PREMIER ACADEMY			
Number of students	305	197	502
Number of toilets	16	16	32
Ratio of toilets/student	1:19	1:6	1:15
TOI PRIMARY			
Number of students	555	601	1156
Number of toilets	16	19	35
Ratio of toilets/student	1:34	1:31	1:33
BOONHOUSE PRIMARY			
Number of students	619	772	1341
Number of toilets	6	7	13
Ratio of toilets/student	1:103	1:103	1:103

7.1.2 Number of toilets

Table 7.2 indicates the number of toilets in the three study schools. The number of toilets vis-à-vis the total student population for this analysis helps us determine the ratio of toilets to pupils. Toi Primary school with a population of about 1156 pupils with 35 toilets has a ratio of 33 children per toilet (34 for boys and 31 for girls). Premier Academy with a population of

502 pupils with 32 toilets therefore has a ratio of 15 children per toilet (19 for boys and 16 for girls) and Boonhouse ratio is 103 children per toilet taking into account pupils' population then was 1,341 with 13 toilets.

While observing their handwashing behaviour, my research assistants noted that students rushed to the toilets during the meal breaks and had to queue before getting an opportunity to use the facility. My discussions with teachers/students/headmasters/others about conditions prior to the research commencing indicated that the more time the children spent in the queue, the less likely they were to wash their hands with soap as they had to rush back to class or to queue for food immediately after they came out of the toilet. Observations during the trials corroborated that information initially but improved when we had more handwashing stations placed. Those children who made an effort to wash just rinsed their hand(s) with water only for a few seconds before running off to eat.

Observations indicated that a number of children avoided going to the toilet at this time due to the overcrowding experienced at the facilities. They would then wait a while after the break and request for permission to go to the toilet. This does not go down well with some teachers who scold them for not observing school rules. The teachers have no choice, however, but to give them time to use the toilets when they request. This is reflected in the comments of one stakeholder who participated in focus group discussions:

The school policy is clear. Children are allowed the time allocated to use the toilets and eat. The idea is to have less disruption during class time. It is however inhuman to refuse the child to go to the toilet when they request because we view it as a genuine request. We also understand that because of overcrowding at the toilets during the break, not all of them get a chance to answer the call of nature. It is only human we allow them to do it when they want to. (School Health Club Patron)

As this study was only observing the children at meal times, these children activities were not captured in our data, although a number of children were seen visiting toilets outside the allocated time in all the three schools.

7.1.3 Direction and distance of toilet from handwashing facility

Another finding of the observation research is that the distance between the toilet and the handwashing facility influences the handwashing behaviour. Children said that as soon as they leave the toilet, they may have intentions to wash their hands but they are likely to get distracted between the toilet and the handwashing facility if it is located a distance away. It is not only the distance between the two facilities but also the location of the handwashing facility. Once the children use the toilet, they are focused on rushing to the canteen to buy a snack or to the dining/kitchen area to be served with food. We observed that if the handwashing facility happens to be in the opposite direction of the food area, the chances of the children going to that direction to wash their hands are limited. As one child noted during focus group discussions:

We have been taught that it is important to wash hands with soap after visiting the toilet and before we eat. Apart from the teachers telling us the same, we have been watching puppet shows and messages on TV and (listening on) radio encouraging us to observe hygiene including washing hands with soap. But in school it is very difficult to remember that. When you go to the toilet, you are in a hurry to go back eat your snack and go back to class. If the tap is far from the toilet, you are likely to forget as soon as you get out because of playing along the way. (James, 11 years old, pupil)

Data in this case was through observation and the distances between the classrooms and the sanitation facilities are based on estimates. I created three categories - less than five metres, five to 30 metres and more than 30 metres. Only Boonhouse had their handwashing facilities more than 30 metres away from the toilet. Although topography design may differ in certain areas, some schools layout plans may have forced construction of toilets to be spread far and wide. This was observed in Boonhouse Primary where a hand washing facility was 30 metres away from the toilet. As Table 7.3 below indicates, the others were within the toilet area hence regarded as no distance at all.

Another important factor that was observed was whether the hand washing facility was located inside, outside or separate from the toilet. The findings recorded as in Table 7.3 below.

Table 7.3: Location of handwashing Facilities

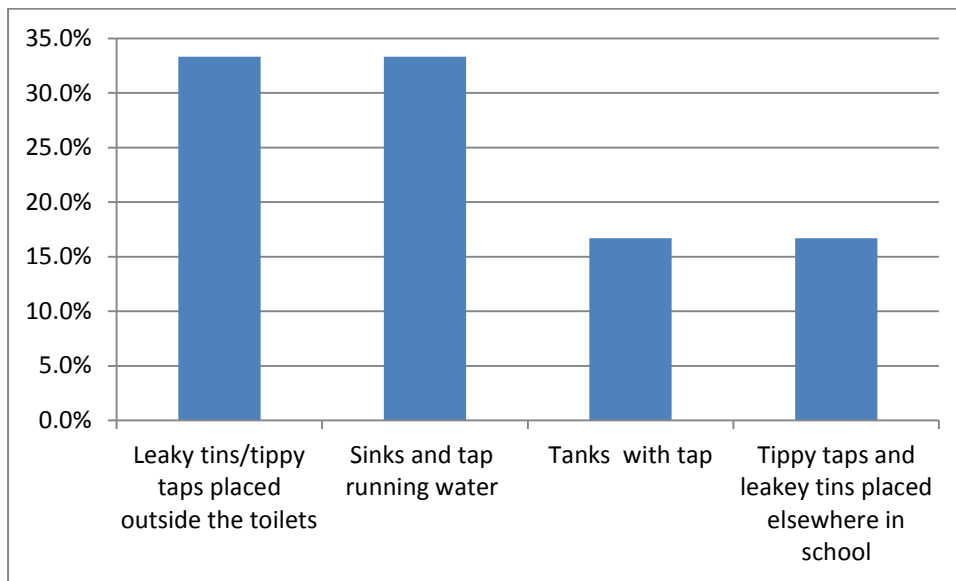
Name of school	Location of HW facility			Total
	Inside	Outside	Separate from toilet	
Toi Primary School	0	8	11	19
Premier Academy	32	0	0	32
Boonhouse School	0	1	2	3

7.1.4 Number of handwashing stations

Information to capture the number of handwashing stations in the school is also important for this analysis. The three schools' tea break is 30 minutes while lunch break is a maximum of one hour. During this period, the children are expected to visit the toilets, wash their hands, eat and then go back to class. If the facilities are few as was in most cases, it is not feasible for 500 children to wash their hands using two stations within that time and make it back to class in time. The consequence of this shortage of handwashing facilities to children's behaviour is obvious – fewer children are motivated to queue and wash their hands. Even when most of them remember and wish to do so, they feel inconvenienced, find queuing a waste of time and opt to eat or go back to class without washing their hands.

Figure 7.1 reveals handwashing facilities in the three schools under the study. We noted that 33.5% of the handwashing facilities in the schools (Toi and Boonhouse) are leaky tins placed outside toilets, near the eating area and in some cases outside the classroom block. Another 33.5% of the facilities are made of running tap water with a sink (in Premier and a few in Toi) and 16.6% are only taps fixed on tanks. These are mainly found outside the toilets. In Premier Academy however, the taps and sinks are all located inside the toilet block. The remaining 16.7% indicated as not applicable (NA) in the table below includes leaky tins and tippy taps located elsewhere in the school compound.

Figure 7.1: Where handwashing is done



Source: Research Findings

Parents and teachers interviewed did not realize this was an issue of concern and, when the topic was raised, initially they argued there was very little they could do to alleviate this problem. Lack or shortage of handwashing facilities was perceived to be a school management problem. When prompted to discuss possible solutions, they said there are some inexpensive and easy options that can be designed and developed to alleviate this problem such as tippy taps and leaky tins (see Chapter 4 for a description). These are popular simple methods that are easily implemented at school or community level using locally available materials. However, installation of leaky tins and tippy taps come with some challenges. As the tins and taps hold –three to five litres of water, someone has to ensure the containers are refilled continuously (Abraham 2001, 21). In schools where health clubs exist, members of the clubs take turns to do this. Some critics have argued that leaky tins can be a source of contamination. They argue that the plug used to seal the leak in the container is handled by many children with dirty hands and there is a possibility that users may in the process of handling the same plug may end up picking germs from other users. It is recommended that the plug is replaced on a daily basis to minimize this possibility. Tippy taps are seen as better options as the users have minimal or no contact at all with the water container.

The local community however agreed that this low-cost and innovative solution to handwashing had more advantages that outweigh the potential risks it may pose to the users. Without conclusive studies on the risks the containers and accessories may pose, it remains

one of the low-cost solutions to addressing the shortage of handwashing stations experienced by many schools countrywide. The statement below sums up the feeling of the teachers:

Let those arguing against the use of leaky tins work out ways to improve the innovation instead of criticizing it without offering any solution. A tippy tap or leaky tin can be placed anywhere and moved at will without incurring costs. As long as the teachers and pupils ensure the tins are clean and the water filled in them is clean, they are the best solution so far. Taps are handled in the same way by different pupils as the plugs. Those criticizing the leaky tins are not saying a thing about the taps. Is it a conspiracy to kill innovation? Bring a better system and we will use it, otherwise let the children use what is available without frightening them. (Teacher, FGD group).

The statement by this teacher sums up the feeling of majority of the school community opinions that were heard in this project. As much as they appreciate work of civil society organizations and stakeholders who have been supporting handwashing initiative, there is a feeling that there is also unnecessary fuss over processes and studies on what works and what does not work at the expense of the children's health.

7.1.5 Type and state of the toilet and state of handwashing facility

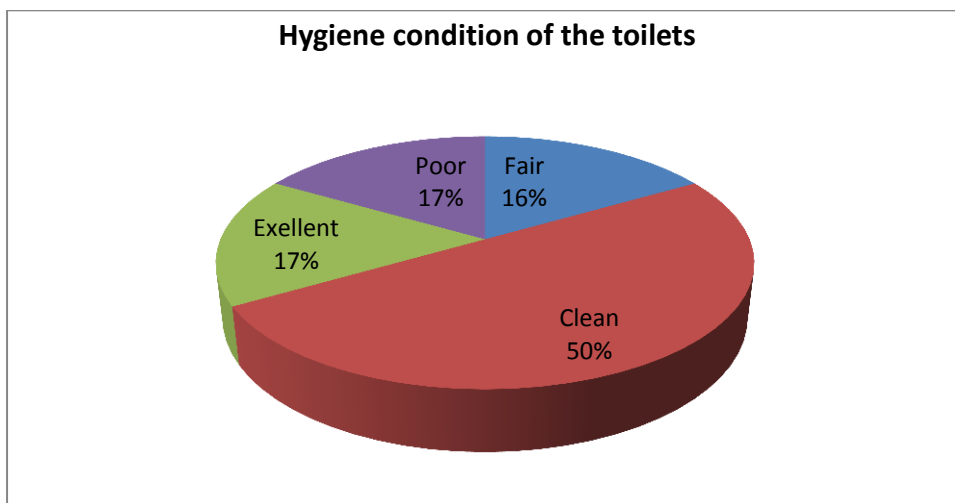
Studies have showed that children globally use toilets and handwashing facilities if they are in hygienic and clean state but prefer not to go to the toilets or wash their hands if the toilets and handwashing facilities are unclean, poorly maintained or in a state of disrepair (UNICEF, 2007).

Across Kenya, depending on the school standards, the toilets will either be permanent or temporary structures. For most of the well-established institutions, the preference is mainly stone structures on sewer lines. Public or even private schools that are not financially endowed may opt for temporary structures in an effort to provide enough facilities to match the huge numbers. In the rural or peri-urban areas, they would be either pit latrines or where piped water is available, the toilets may be flushable ones with the sludge emptied in a sewer

line or a septic tank. Walls are either made of stone, timber, mud, iron sheets or hard plastic. The floor may be cemented or constructed with timber/mud. The state and maintenance of such toilets is difficult and often, the handwashing facilities that go with it are usually in deplorable states.

Figure 7.2 below indicates the condition of toilets that were observed in the three participating schools during this study. Excellent state of the toilet implies that they are well kept, clean, with running water flowing throughout. Clean implies good state of the toilet with well-maintained walls, floors, handwashing basins etc. Fair implies that the toilets are in use but require some work to improve on their state and safety of users. Poor indicates a state where the facilities are in a state of disrepair, dirty or poorly kept and unsafe for use.

Figure 7.2: Hygiene Condition of Toilets



Source: Research Findings

Table 7.4 captures type of materials used to construct the toilets. Safety standards of these structures hence safety of the users has been of major concern to the national government authorities and stakeholders. The Ministry of Education, civil society organizations and development partners have invested heavily in improving sanitation (See section 6.2.1 and 6.2.2).

Table 7.4: Toilet Structure

Name of school	Construction materials for toilet walls		
	Stone	Timber	Plastic
Toi Primary School	x		X
Premier Academy	x		
Boonhouse School		x	

Toi Primary had a combination of both permanent and temporary structures. All facilities at Boonhouse were constructed using timber materials. Despite the materials used, all the structures from observation appeared structurally sound and safe for use. As both Toi and Boonhouse had erected tanks with taps and leaky tins and tippy taps to serve as handwashing stations, there was no proper drainage provided for waste water. Stagnant water around the tank and other washing facilities led to muddy pool that made the place murky and uninviting for the children. When we asked the children to give reasons why they did not wash hands even when water and soap was provided, a pupil in one of the focus groups said:

When the area around the handwashing facility is muddy and dirty (without a drainage system), most of us would prefer not to wash our hands at all. I only wash my hands in the morning after the water that flowed the previous day has dried up or drained. But once a number of children wash their hands, the area gets flooded and muddy. At that point I do not want to make my shoes dirty so I prefer to keep off. It is worse if you do not have shoes or the shoes you are wearing are torn with holes that let in water. You stay the whole day with stinking shoes and socks if they get wet. *(A pupil who watched the puppet show, Toi Primary)*



Photo 7.1 Toilet block (L) at Boonhouse



Photo 7.2 Eco-Toilet (R) at Toi Primary School

Copyright: Rufus C.E. Eshuchi, 2011

7.1.6 Availability of water and soap

During the two weeks of observation, we made sure there was water and soap at the handwashing facilities. However maintaining such supplies is a challenge that most if not all the schools in Kenya face from time to time. It is very common for households and institutions in urban areas to go without running tap water for a number of days in a week unless one has installed a storage tank that would last a couple of days when water is being rationed or directed elsewhere. Apart from storage tanks, other alternatives people have resorted to include sinking boreholes, harvesting rain water or buying water from vendors who deliver to households and institutions.

This initiative depends heavily on availability of water and soap, and as they are prerequisites for appropriate handwashing. The availability of water thus stands out as the largest challenge to sustainability of this initiative. In an attempt to get ideas from the school community on how the twin problem could be addressed, some of the FGD participants interviewed offered some ideas. Critics of this initiative allege that it is impossible to implement this programme in schools especially in peri –urban and rural Kenya due to lack of water. I argue that though a social mobilization process, there are ways in which the water shortage problem can be addressed. There are civil society organizations addressing water scarcity issues. They may not be in a position to facilitate availability of water to all schools in the short term. However, it is possible for the schools and the community to come up with some interim measures in the short term. One Head Teacher had this solution:

At the school level, it is possible to organize children to bring water from home or any other sources both for drinking and washing hands. We have done this before and [it] can still be done successfully. Class teachers organize their classes in turns to bring water as little as one litre to five litres containers. Part of that water is treated for drinking and the rest is used to fill the leaky tins for washing hands. Once the parents have been informed, they are very supportive. We have done it before with children in Classes 3 to 7 performing this task very well. Each class having been allocated a day to do that. (Head Teacher in FGD session)

The above case may not be a perfect solution as it puts pressure and huge responsibility on the children but comments by the parents and the children themselves reveal they are willing to go an extra mile if they perceive the effort is going to benefit them and the community. Depending on the approach taken by the initiators, involvement of the community and key stakeholders is likely to spur action as one parent put it:

If you stay in the valley, you won't get over the hill. A small gesture by the parents and the children will send positive signals to anyone willing to support the initiative. There is no project that is fully financed by the donor. The beneficiary must show willingness to make a contribution in whatever manner. That will be considered by partners as a sign that you have noted the importance of the intervention. This is likely to attract support from others...but if you just sit there and wait, no one will notice your need. (Parents Teachers Association member)

This shows that once community members are sensitized and mobilised towards a goal that they perceive useful, they will support and own the initiative hence less dependence on external support. This may translate into a sustainable programme.

As a famous adage goes: *It is not what you give, it is the way you give it!* Within the communities, there are parents who may easily afford to contribute towards HWWS initiatives, while other may find it difficult depending on their economic ability and station in society. Those with economic muscles and ability to contribute more may be urged to do so to and give more to fill the gaps caused by those who may not be able to provide.

Critics of school handwashing initiatives have also talked about the shortage of soap. They have advanced the argument that parents and schools cannot afford soap for handwashing. This perceived poverty has made stakeholders support the use of ash for handwashing as an alternative in situations where soap is unavailable. By contrast, this thesis argues that although majority of villagers are poor, 97% of households have access to soap as a study by the World Bank revealed (World Bank 2007). It is therefore important to view any initiative in this light and encourage parents and community members to provide soap for handwashing as a preference, owing to the benefits this will create.

During the period I served as the Country Handwashing Initiative Coordinator for the World Bank, I visited school WASH Programme in Turkana District in North Rift. This is a region that suffers from perennial water shortage and is arguably where you will find people who are considered to be the ‘poorest Kenyans’. Parents and school management have made arrangements for pupils to contribute a portion of their soap to the health club to promote handwashing initiatives throughout the year. The soap is collected at the beginning of the term and stored by the club and released on a daily basis by the club member under the supervision of the patron (teacher). If students in the ‘poorest’ region can afford to do that, why not the rest of the country? As alluded to in Chapter 4, ensuring there is soap at the handwashing stations throughout the day is one of the greatest challenges the schools face. The challenges are related to both procuring and use of the soap in the most efficient way. This chapter (Section 7.2.6) suggests a number of ways to mitigate against these challenges based on suggestion by the stakeholders interviewed.

i. How can school procure soap?

Despite the possibilities of community donations of soap, and the cost of soap and the reality facing many institution regarding procuring supplies for the school, it is important that purchase of soap for handwashing is factored in the school budget. From information obtained via interviews with stakeholder groups, it is now becoming obvious that very few schools will in future benefit from donor programmes that provide soap for handwashing initiatives. Even those schools still receiving that support are being asked to begin exploring other sustainable options. Stakeholders interviewed explored some possible avenues for obtaining soap. They include:

- Direct budget from the Ministry of Education for public schools –the majority of stakeholders interviewed said that as the government budgets for funds to support school activities, there should be an allocation for buying soap. This would ensure that the schools were supplied with soap in just the same way the ministry supplies books for education purposes. Private schools would in the same way ensure they bought and provided soap for handwashing from the fees they received from the pupils. This proposal, however, would require lobbying and advocacy efforts as it would require both a policy shift and political will to succeed.

- PTA financing - the second option suggested by the stakeholders is to consider the school management working out modalities under the parents-teachers association to support soap procurement. Under this arrangement, the association would consult the members, decide how much to budget, and agree on how much the members would contribute. The members would then pay the agreed amount to the school management to purchase the soap.
- Pupils contributing portions of soap – the third option that would ensure there is supply of soap is through individual family contribution of soap. Each pupil would be asked to bring to school a designated amount of soap based on the management agreement. The soap would be kept in a central place from where it would be placed at the handwashing stations within the school. Storage and management of the soap would be a matter to be agreed upon within the school depending on the structures put in place.
- Bring own soap to school – during the 2007 Baseline and Consumer Study on handwashing with soap but published in 2009 (World Bank 2009), it was observed that a number of children, particularly girls carried a tablet of soap to school which they used to wash hands with after they visited the toilet. Parents and teachers raised this as an option if none of the first three proposals were implemented. This approach, however, would not provide all children with a fair opportunity as some children might not bring soap or might lose it in the process. As one teacher put it, “we need pro promote equity among the children so that all of them whether from the well to do or disadvantaged homes feel they are being treated equally”.

ii How can we use soap efficiently?

Most schools have over the years been implementing WASH initiatives either with support of civil society organizations, the private sector or on their own. One of the major challenges they have all experienced and are struggling to find remedy is how to securely store soap for handwashing. “If the soap is not being misused, it is stolen from the soap rack” said a Head Teacher of one school studied for this research. The following are some of the suggestions on how to handle and use school soap efficiently that were raised by stakeholders interviewed for this research:

- Coordination structures at county and sub county levels—stakeholders interviewed were full of praise of the Inter-ministerial Coordination Committee (ICC) under the Ministry of Public Health and Sanitation, and proposed direct involvement of the ICC. Although ICC operates at the national level and brings together partners/stakeholders involved in hygiene and sanitation, currently at the provincial and district levels (with devolved system of government the structure becomes county and sub-county), there are similar structures that mirror the national one. The ICC has the mandate to vet, recommend and monitor all WASH sector activities being implemented in schools and communities. The rationale of putting these activities under the watch of ICC was to ensure there is coordination and oversight to reduce duplication, quality control, and at the same time provide technical assistance on hardware and software provided by implementers.
- As suggested by the stakeholders, the devolved structures mandated by ICC at the lower level will be charged with the responsibility of assisting school management committees to manage soap procurement and supplies. The committee can commission studies at this level and come up with recommendations on how efficient this exercise can be implemented. An official from Ministry of education added: “They can spearhead local innovation and at the same time fill the data gaps from national studies at the local level.”
- Previously, a few schools have benefited from soap and other materials donated by donors while others get nothing. This committee will strive to share these resources equitably among the schools and community. Donors will be provided with data at the county or sub-county level that will inform any project or programme intended to benefit the children through supplies for hygiene and sanitation. “These committees will serve as local resource base for implementing handwashing and in general WASH initiatives to both civil society and development partners” said a ministry of health official.
- The devolved structure will also strengthen the capacity of school management committees and PTA in technical matters and management of resources. The PTA and school management have in the past been accused of inefficiency, mismanagement and lack of transparency. Some stakeholders voiced these sentiments and wondered whether it will be prudent to allow them to manage the soap procurement and distribution process. A parent however added that “if structures are

strengthened to monitor the process and also plans put in place to build the team's capacity, as a parent I will be happy to contribute towards this initiative.”

The reason for constituting and operationalizing the committee is to ensure there is efficient utilisation of soap and other handwashing related materials. The committee will act as an oversight body that can be entrusted to manage both public and private donations for the benefit of children.

- Club structures in every school – During the period in which I served as the Country Handwashing Coordinator for the World Bank programme, I witnessed different models of structures around the country by different schools in their efforts to implement WASH activities. Stakeholders interviewed felt that a formal club within the school to support handwashing initiative would be the best approach. Under this proposal, once the soap has been procured, club members will be charged with the responsibility of administering and monitoring its usage.

Bars of soap are always taken away from the rack or thrown in the clogged sink and wasted. Liquid soap is spilled and wasted when the children push and shove to wash hands. An organized club with systems that help to supervise children, especially those in lower grades (1-4) who are most playful, will help ensure soap is not wasted. As one of the teachers stated: “Although initiatives such as this increase our responsibilities in school, we must go an extra mile to ensure we support the younger children to realize the importance of handwashing with soap”. Teachers have to be trained and be motivated to run the affairs of these clubs. Motivation does not have to be in monetary terms. “Training to build the capacity of a teacher is fully appreciated. The recognition one gets and the certificate comes in handy when one is seeking a promotion or moving from a public school to a private one raises one's chances over their competitors” (Teacher in FGD) who talked about need for motivation by WASH initiative.

- Soap in each class – one other strategy recommended by the stakeholders is to keep soap in with a handwashing station nearby. This suggestion has higher chances of success in limiting wastage of soap because either the class teacher or a selected class representative will be monitoring its use at the class level. Children especially those from the lower grades may benefit if the teacher and assistant teacher supervises and reminds them to wash their hands at critical times. The teachers interviewed concurred with this proposal

and were quick to add: “Let us not push for this initiative as it were a different a separate programme. Let us look at it as part and parcel of the work we are supposed to do to better the children’s hygiene”. The disadvantage of this proposal may lie in the fact mentioned earlier in 7.1.3 regarding the location of handwashing facilities. If the children use the toilets and have to walk back to their classes to wash hands, they may in the process forget to do so. Depending also on what else they do after the toilet (say buy a snack at the school canteen before returning to class), there is a high possibility they will handle or eat the snack first and wash their hands at the class wash station after. This proposal therefore poses a number of challenges and can only succeed if the teachers provide support as envisaged.

- Special soap dispensers for children – as the school management and the community discussed the issue of soap, one critical issue discussed was the need on innovation by the private sector or civil society to design a robust and large soap dispenser that can be fixed at handwashing facilities within the school. The teachers lamented that those on the market now “are expensive, weak and too small and easy to remove hence are stolen and cannot serve the needs of school population”. This is a challenge that is beyond the school team as it requires collaboration of partners with technical know-how and expertise in designing soap dispenser to study the children’s needs and come up with an affordable type. The need for this was also raised on the perception by stakeholders that children (especially the younger ones) appeared to wash their hands more when provided with liquid soap. There is also a feeling among the stakeholders that the use of liquid soap in institutions may be the best to eliminate fear that now prevails regarding possible contamination of a bar soap when used by many people. “I prefer giving my child a tablet of soap from home for her own use while in school. This makes me feel she is not at risk of picking up germs from the tablets at the handwashing facilities. If it was liquid soap, I would not mind as there is little room for cross contamination” (Parent in FGD).

Many Kenyan schools in this effort have become innovative. They grind the bar soaps into a powder form (or buy powder soap instead) and mix it with water for handwashing purposes. The soap is put in half litre bottles and placed at the handwashing stations. Some institutions even mix the soap in the water that is put in the leaky tins so that the children straight away wash hands with the soapy water. As much as the school management exuded confidence that this approach has helped, it did not appear very popular with the children. As one child in a

focus group said: “I don’t like the idea of mixing soap with water in the leaky tins. We are not able to rinse our hands and go back to class or eat with soap smelling on our hands. In most cases this mixes with our food. This eliminates germs okay but we cannot enjoy to eat and play after that with our hands smelling of soap”

7.1.7 Are the children washing their hands with soap?

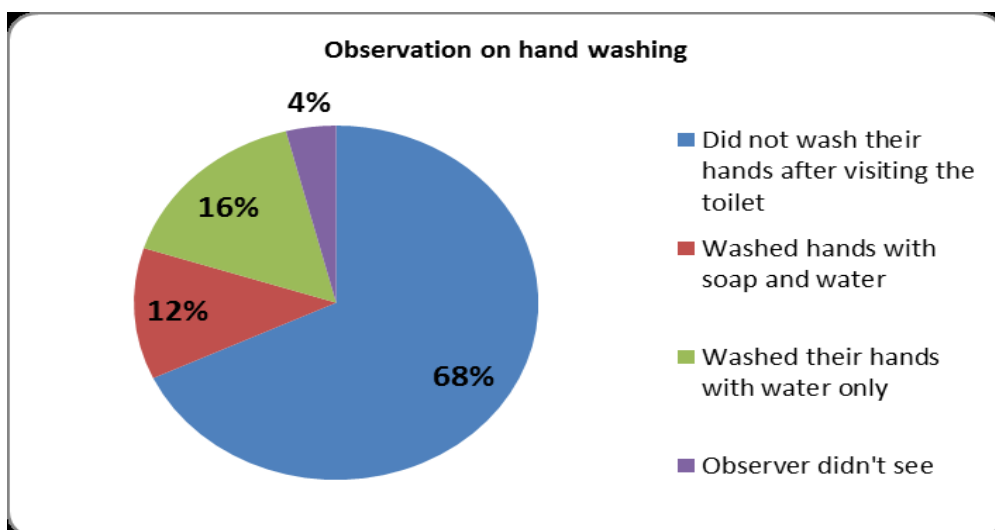
In 2009, the World Bank together with the Ministry of Public Health and Sanitation published a report “Are Your Hands Clean Enough?” The report was based on a national Baseline and Consumer study on Handwashing with Soap in Kenya conducted in 2007. The report became the basis of a number of interventions on HWWS in Kenya to date. The study revealed that only 1% of school children washed their hands at critical junctures while 5% of mothers and caregivers washed their hands at critical times. The World Bank study posted 54% increase in a number of Kenyan children who washed their hands with soap after being exposed to a variety of promotional activities and soap being placed at the handwashing stations in schools. In other words, there was a remarkable increase from 1% to 55%, although the change was relatively short-term. Children interviewed during the World Bank’s Baseline study reiterated that they would like to learn more about hygiene and handwashing in a fun manner (World Bank 2009).

Since that time, various activities and intervention to promote handwashing with soap have been in place in various schools around the country. Some of these activities have been a one-off event while others have been in form of programmes by civil society organizations through the health clubs. For example, the Ministry of Public Health and Sanitation together with Ministry of Education with support from UNICEF and the World Bank have been implementing SOPO through school activations since October 2009. Unilever Kenya (Lifebuoy Team) and Dettol have been involved in school based handwashing activities in a number of school in Nairobi and some parts of the country. CARE Kenya, Plan International, AMREF and other CSO’s have and are still involved in WASH activities targeting school children and in communities. This PhD pilot study sets out to test the viability of puppetry as a complementary approach that can be used in schools to enable children learn and adopt handwashing with soap behaviour in a fun manner.

A study led by Prof. Karama of Kenya Medical Research Institute (KEMRI) involving contextual inquiry, via interviews and focus groups, in 2011 is of significance. Unilever Kenya supported the Alliance for the Promotion of Handwashing with soap, an alliance of health professional and professional bodies led by KEMRI to undertake this study whose aim was to assess the effect of “The School of Five” an activation programme influencing the adoption of handwashing practice piloted among 80 primary schools in eight districts within Nairobi County. Karama’s (2011) study found that handwashing rates in schools that participated in the “School of Five” programme was 12% in 2011, well above the World Bank’s Baseline figure of 1%.

Figure 7.3 summarises data analysed from “The School of Five” Programme. The model involves training five children in every school who in turn form groups of five to disseminate HWWS messages. After three months, the new team members recruit new groups. The School of Five model confirms importance of approaches and activities that involve and engage the children. Thus this PhD project has the potential to add to the gains achieved via programmes such as “School of Five”, by using puppetry to promote HWWS behaviour in a way that has not only encouraged the involvement of children but provided a platform to listen to the children’s voice during the puppetry workshops.

Figure 7.3: Observation of Handwashing



Source: Karama, 2011

Unfortunately, time and resource limitations meant that it was not possible to conduct a baseline study in the three participating schools prior to conducting my own puppetry-based

HWWS intervention. This means that I cannot provide exact “before and after” figures of the impact of my research. While this is a limitation of my research, it can still be presumed that the levels of handwashing within the participating schools are unlikely to have been substantially higher than the 12% recorded by Karama in schools that were exposed to the “School of Five” and other national HWWS programs.

Interviews with key stakeholders were also of great significance. Teachers and school management who were interviewed or participated in focus groups during this PhD study indicated that handwashing rates were low in the schools prior to the puppetry intervention and a lot needed to be done to promote HWWS practice. A teacher in one of the schools reported that children required constant reminder to wash their hands with soap at critical times despite the fact that she had placed water and soap outside the classroom. Box 7.1 captures some of the stakeholder’s impression of conditions prior to the puppetry workshops. I also informally observed that before the puppetry workshop in all the three schools, there was very little interest in or use of the handwashing facilities.

Box 7.1: Quotes from teachers

- “Although we have noticed some change in the children’s hygiene behaviour, I still think the handwashing rates are still very low. The efforts we have made need to show through improved rates. I believe more efforts need to go into involving the children in most of the activities”- Male Head teacher
- “We are nowhere near the 30% target set by the government. The rates (handwashing) are still very low. When you watch the children coming from the toilet, you rarely see most of them washing hands with soap. It is worrying” – Female Health Club Patron
- “When the younger children are reminded to wash hands with soap after visiting the toilet, they make an effort...but the older children are the culprits. They almost never wash their hands with soap. Majority will rinse their hands in water just to show others they have washed yet as we know... that does not help”. – Female Class teacher

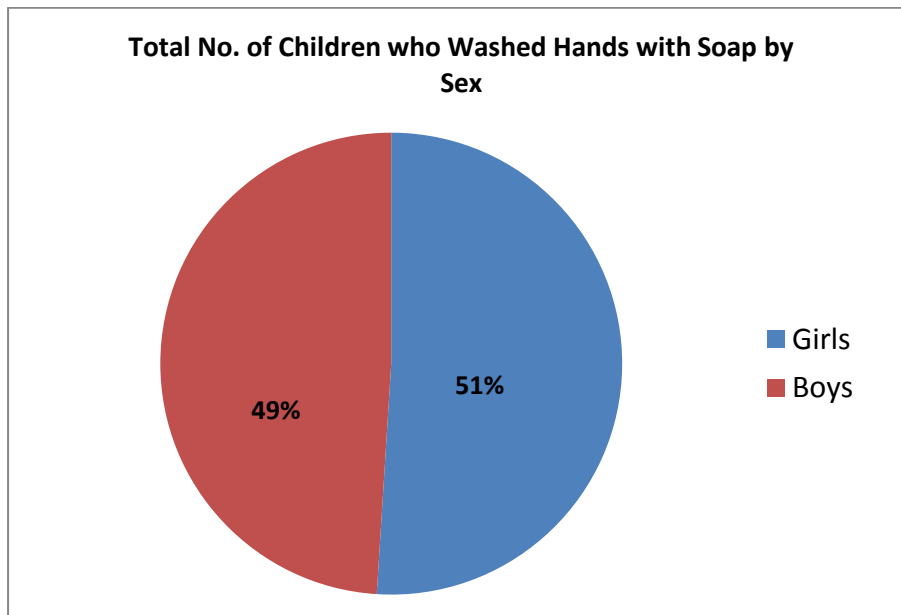
This contrasted with the enthusiasm and interest that the PhD observers noted in the three schools after the children watched the puppet shows. In all the three schools, the teachers similarly indicated that they too had noted some improvement in handwashing frequencies during and after the puppetry-based HWWS promotions and related activities that were

conducted for this thesis. The stakeholders' general feeling was that they considered the improvement sufficient compared against the national target of 30% set out in the Handwashing with Soap Strategic Communication Plan for 2009 - 2011.

The findings of this puppetry initiative found similar outcomes to the trials conducted during the World Bank baseline (discussed at the beginning of Section 7.1.7) where observations noted handwashing rates increased to 54% when a variety of promotional activities were conducted and soap was placed at the handwashing facilities. As Figure 7.4 shows, following the puppetry intervention conducted for this PhD in this pilot study, observers similarly noticed very high rates of handwashing – 49% among boys and 51% among the girls – in the three schools after the puppetry intervention (See Figure 8.4).

This, however, does not mean that the high levels of handwashing would necessarily be sustained in the longer term. As will be discussed later in the thesis, a number of interventions have to be put in place over time to ensure the children will continue practicing and eventually adopt this behaviour for the rates to remain at the targeted level of 30%.

Figure 7.4: Total Number of Children who washed hands with Soap.



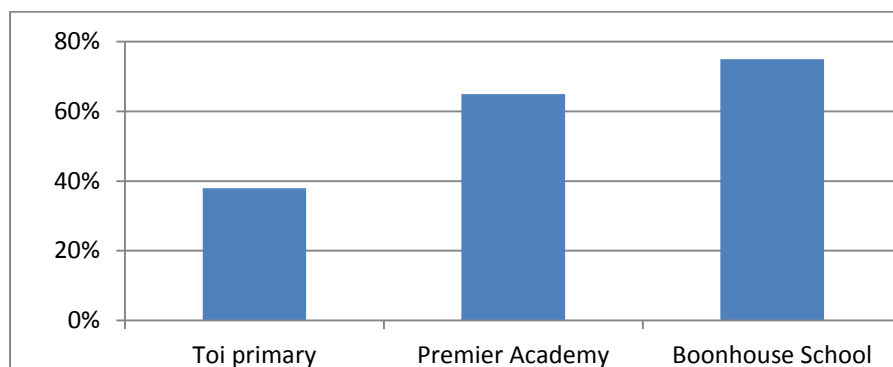
Source: Research Findings

Among the three participating schools, Boonhouse School recorded the highest cases with 75% of the total children observed washing hands with soap, followed by Premier Academy with 65% and Toi Primary with 38% (see Figures 7.5 and 7.6). The high levels of HWWS behaviours is noteworthy given that Boonhouse has all of its handwashing facilities located

outside the toilets with most of them constructed and stationed during the study period percentage. There are several reasons that may explain this outcome. Firstly, the excitement created by children themselves being involved in constructing and placing the handwashing stations in preparation for the puppetry exercise may have contributed to this. Secondly, the DOI theory as I discussed in Section 3.2.1 became evident in the children’s behaviour as demonstrated in Figure 5.1. *Roger’s Division of Population Groups in Adopting Innovation*. Observations revealed that during break time, a few children rushed to the handwashing stations on the first and second day of observation. The numbers swelled subsequently as younger children picked up the cue from older ones and began washing hands every time they visited the toilet. My inquiry three weeks after the observation period indicated that a substantial number of children in Boonhouse have sustained the behaviour as long as there is water and soap at the stations. Thirdly, the teacher in charge of the school health club attributed the success to the fact that the children were very excited with the installation of the tanks and availability of water and soap. Before the puppetry workshop, the school had only one water tank at the kitchen that served as a source for water and handwashing.

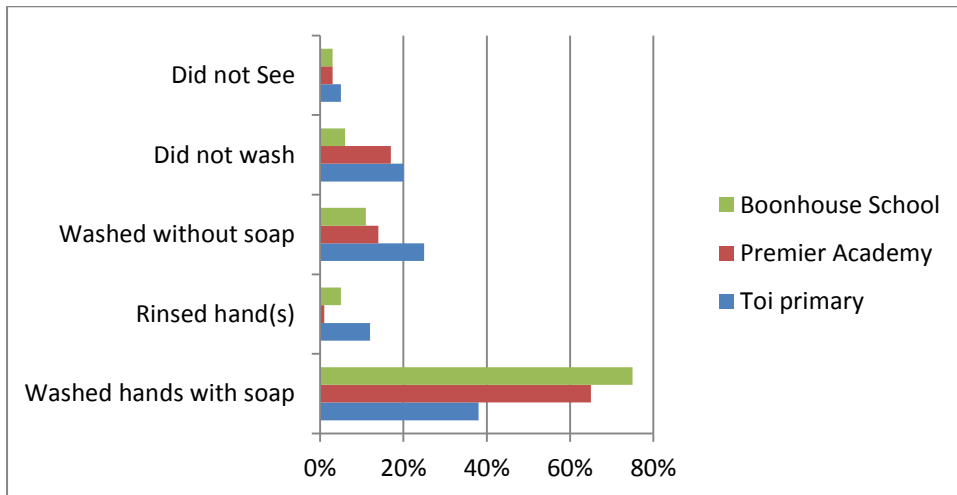
The lower levels of handwashing in Toi Primary may be attributed to a number of reasons. The toilets are spread all over the compound with some of them having dysfunctional handwashing facilities. The girls were even more disadvantaged because the only toilet block with a functional handwashing facility next to it is assigned to boys and also located behind the classrooms. For the girls to use the handwashing area, they have to use their toilet in front of the classes and then go round the block. This was impractical. The school kitchen and dining area is closer to this toilet block. These factors are likely to have contributed to the lower cases of girls who washed hands with soap at the critical junctures.

Figure 7.5 Total No. of Children Practising HWWS Behaviour per School.



Source: Research Findings

Figure 7.6: Summary Total Observations per School in percentages N=2205



These results are an indication that socio-economic status of the schools did not affect the handwashing behaviour. Boonhouse School that recorded the highest number of children who washed hands with soap after using the toilet is in the same socio-economic status as Toi Primary that recorded the lowest rates. At Toi Primary School facilities were located a distance from the toilet block, and the state of the handwashing facilities and crowding during school break may have contributed to the low rates of children who washed hands with soap. Premier Academy had more HW facilities strategically placed within the toilets but still recorded moderately lower rate than Boonhouse School.

7.2 Quality or Quantity: What drives Projects?

“My classroom has soap but the children sometimes just ignore it for days on end and make very little use of the soap provided, without my harsh prompting.” Class teacher

Section 7.2 summarises discussion with stakeholders on hygiene, sanitation in schools and households. The discussions started by exploring the stakeholder’s views around general health situation of their children, hygiene related intervention and their role in promoting these interventions. Children – puppetry workshop participants and those who watched the performances – were also interviewed. We discussed the importance of handwashing and its benefits. Key questions were also asked on the role of puppetry as well as the process of establishing this approach to address handwashing with soap in schools.

One of the key aims of the interviews and focus group discussions was to unearth the reasons behind high knowledge of the importance of handwashing and yet behaviour practice is very low. This subsection tries to answer these questions. Stakeholders interviewed attempted to address this question from different perspectives. The respondents emphasized that the opinions expressed should not be seen as their organization’s stand but individual views and observations based on their experience of working with children. In Sections 7.2.3.1 to 7.2.3.9 I highlight the key issues raised by the stakeholders who were interviewed.

7.2.1 Methodology of Focus Group Discussions

Chapter 2 summarises the overall approach to the FGDs. Table 7.5 summarizes the number of respondents interviewed during the data collection process in November and December 2011.

Table 7.5: Summary of interviews conducted

Category	No.	Institutions
Key Informant Interviews	12	MOPHS - 2, MOE - 2, MOWI- 2, WB - 1, UNICEF - 2, PATH - 1, African Child Media – 2,
Focus Group Discussions	9	School Management (Teachers and Parents) 18 participants in 3 groups each with between 5-8 participants) Children (Puppeteers) – 30 participants in 3 groups of 10 members each. Children (Audience) – 30 participants in 3 groups of 10 members each

Source: Research Findings

7.2.2 Community understandings of the significance of HWWS

Initial discussion in focus group discussions (FGDs) revealed incidents of major outbreak of diarrhoea in the three schools and surrounding communities in the past, although not in the past three years in Kenya. In initial discussions with stakeholders, they did not seem to relate the illness nor the stomach problems highlighted with handwashing. There was also mention of stomach ache and flu and coughs but the respondents in the FGD for school management and parents were not really sure if the illnesses were related to issues of hygiene, especially handwashing with soap. Responses like this suggested that the participants did not consider initially that teachers or school management needed to be more proactive in promoting handwashing with soap.

Teachers were aware that they could guarantee that the children would always remember to wash their hands at the critical junctures. One of the teachers said “Children have a hard time listening and reinforcing the message from school at home”. Teachers reasoned that handwashing and general hygiene is something that they have stressed to the children over and over again and it was up to the children to ensure they practice it. “We cannot follow them to the toilets and wash their hands after,” one female teacher stressed. However they admitted that any other method or approach by stakeholders and civil society that could

reinforce the message of hand washing with soap was always welcome. The FGD participants similarly acknowledged that “any other method that could reinforce the message of handwashing with soap is always welcome” because it was desirable to reiterate existing messages taught to the children. The behaviour change models such as the Process of Social Change we explored in section 3.2.1 support this view. The message must be repeated several times before the recipients begin internalizing it and evaluating it in relation to their behaviour.

Teachers and parents noted that health problems affect school attendance, consume the parents’ time in caring for them when they are unwell and drains the family resources when treatment has to be paid for. Some of the sicknesses afflicting their own children as mentioned in the FGDs include diarrhoea, stomach ache, colds and flu, headaches and fever.

After further prodding on what they thought causes these diseases, the FGD members said most of them were due to poor hygiene practices. This backs statements made by several respondents during the handwashing with soap formative study (World Bank 2009, 29) that revealed health considerations are not a major driver for handwashing. Ministry of Public Health and Sanitation officials said that Kenya has been identified as a case study in Africa because in the last four years, there has been no mass occurrences of diarrhoea in areas that have normally been affected by diarrhoea and cholera outbreaks. The officials attribute this to the WASH campaigns and initiatives of which handwashing with soap is part of.

A drop in diarrhoea incidences could be an indicator that the messages on HWWS are being taken seriously and the targeted audiences are practicing the positive behaviour. As in any other learning process, HWWS is a learned practice. What makes it even more complicated is that one has to learn, remember and practice it. In a number of Kenyan communities, practice may be hindered by social or cultural norms. Section 3.1 and 3.2 looks at what influences community members to change behaviour and under what situations they are likely to support development in their community.

In the FGD session at Boonhouse School, some of the participants were of the opinion that the health problems were hygiene related, and others attributed them to the environment of Ongata Rongai Township where the school is situated. For example, one parent said that “even if the children wash their hands with soap, the environment they live in is still not very

healthy. It is dry, dusty and hot. This surely promotes existence of the diseases affecting us and the children”. They however overwhelmingly agreed that handwashing is a major problem but they also felt that they were handling it well. The school management argued that the school had ensured there were clean toilets, enough water storage facilities and handwashing stations. Teachers suggested that they could take further steps by increasing their supervision of the younger pupils during the break times to ensure they wash their hands.

However after further discussion among them, FGD participants at all the three schools conceded that handwashing was a major issue that had to be addressed not only within the school but also the wider community. “We need to ensure this practice does not just end here but extends to the community. There is no point our children washing hands only in school but come home and eat germs. Both themselves and those who care for them should practice hygiene” (PTA Member).

Apart from the support provided by the school management (head teachers, PTA officials) to my study, I observed that there was a positive reception to the whole idea of a communication initiative that would benefit the children. Despite the fact that teachers often indicate they are too busy to take up extra tasks besides teaching when new programs are introduced to schools, they showed willingness to work with the children in the puppetry initiative. Parents showed willingness to provide material support to the children such as soap and encouraged their children to bring water in the school during the puppetry trials. Through pronouncements by officers interviewed in the course of this study, the relevant local government indicated willingness to back any organisation implementing HWWS initiatives in schools interested in supporting similar activities of puppetry to promote hygiene in schools. All the stakeholders however noted that the success of a puppetry initiative in the school requires support from parents and is depended on many other factors such as software and hardware, approaches employed, capacity development of teachers, development of structures, involvement and engagement of children to lead etc (see Section 7.2.3).

7.2.3 Health Education in Schools

The following sections will detail the comments from both teachers and pupils went into detail when describing approaches that have been used by various players to promote hygiene

and health education in the three schools. Teachers gave accounts of ways in which their colleagues have used to reach out to their pupils with messages in some cases, they gave their personal accounts and experiences. As a teacher in-charge of a lower class put it:

In my class, I remind the children to wash their hands after using the toilet and before eating. Soap has been the problem. I want to suggest that if this activity has to succeed, we have to ensure there is soap all the time. Let us ask all the well-meaning organizations to donate soap that can be given to the pupils to motivate them..... We should also come up with a reward system for the children with good hygiene practices. (FGD, Teacher)

This teacher identifies an important factor in encouraging HWWS. Reward systems helps acknowledge children's efforts and motivates others to take up same positive practices in order to be rewarded and be recognized. This approach is being used by a number of agencies that are implementing most health programmes. In handwashing initiatives such as SOPO (discussed in Sections 1.1 and 6.4.1), the children being recognized are called SOPO champions and feel honoured when they are feted on school assembly and are happy to wear their T-shirts and wrist bands they are given (MOPHS 2009).

i. Not One-off Initiatives!

All the stakeholders interviewed emphasized that HWWS practice is a behaviour that cannot be adopted in a one-day activity. Stakeholders said that partners (civil society organizations) have a tendency of designing activities that take place once a year or once in a lifetime in schools. They visit a school, engage the children for a day and leave. This may be due to budgetary constraints and the need to reach as many children as possible. Such activities only serve to create awareness but cannot lead to the desired behaviour change.

The project team is always interested in numbers. They want to go back and report to the donor that we reached X number of children during the implementation period. But when asked about the impact of their activities, they will provide a shallow report indicating the children they engaged reported knowing how and when to wash

hands. The activities do not even take into account other factors within the school or community that may promote or impede the adoption of handwashing practice. This in fraud and must end (Government official).

The officials that I interviewed indicated that there is no need to compromise quality of initiatives for the sake of quantity in terms of the numbers of children reached. If projects and programmes are to make any meaningful change, it was proposed the planning should be more systematic, engaging children in a school for a longer period, preferably one term (12 – 14 weeks) and then move to the next school having ensured the project team has covered most of the issues on the ground to sustain the programme.

The stakeholders also noted that adoption of HWWS behaviour also depends on a number of factors, which may be physical, emotional, financial, or other, and must be taken into account before children will begin washing hands with soap as a habit. Section 7.3 discusses these motivating and inhibiting factors in greater depth. In this case, for programme initiators, it is the numbers that are documented in project teams that count but not the impact of the activities initiated. For example, one school teacher noted that “some of the approaches work well only as long as the pupils are reminded over and over again”.

The participants said they believed that the puppetry HWWS interventions were sustainable but that assistance must be provided to the pupils, teachers and parents over the long run. Teachers said that more education and support from trained puppeteers would go a long way in sustaining the activities that were piloted for this thesis in the school. They also mentioned that interest by the education authorities in puppetry-based interventions would be a valuable source of support. One teacher went as far as to express the hope that puppetry programs that promote better health outcomes could be part of the curriculum one day.

These findings reinforce the principles that Robb and colleagues (2001) state must be adhered to for a sustainable and quality programme in a community (see Section 3.1 for details).

ii. Software and Hardware

As was discussed in Section 6.2, information to promote handwashing with soap must be

accompanied with provision of facilities and certain structural changes in the institutions. This calls for initiatives to be design as a package that covers needs of the children to facilitate behaviour change. It is critical to note that all the schools may not require the same package but there is somehow a standard package that is a minimum requirement to ensure the school has what it takes to promote HWWS behaviour. One development partner official summed this by saying:

You cannot promote handwashing behaviour without making sure there is water and soap. It is like telling a poor hungry man to observe nutrition habits without providing any food. Surely the man must have some basic food to begin from. He must have the ability or ways of buying or getting what he is missing if you expect him to adhere to your information. This is what we must strive to do in handwashing.... The basics must be made available either by the government or partners or find ways of making the community see the need of contributing. It is only then that we will expect the behaviour to be sustained (Development partner official).

Unfortunately, the official describes the situation that most of the schools are in. Water is scarce. Soap is a problem. Facilities are unavailable, or where available, they are not adequate and in sorry state (see Section 6.2). The ACADA planning process (see Section 3.1.2) and DOI theory (see section 3.2) emphasize the need of collaboration and partnership in stimulating change. My experience as the National Handwashing Coordinator showed that one partner cannot provide all the requirements but when several agencies collaborate and coordinate their activities in a joint plan with each playing their part, they are likely to make an impact. As one teacher summed it during a focus group: “the initiatives have to be looked at wholesome and not piecemeal. Provision of hardware and software; environmental conservation and general cleanliness in the institution.”

In section 7.1.6, I discussed at length issues related to soap availability. Donors or private companies are welcome to donate soap for handwashing to schools but I argue that this is not a sustainable approach. The soap companies have a short-term agenda to push their brand of soap. More long-term solutions as those suggested in the section 7.1.6 and should be explored to ensure soap for handwashing is procured and effectively distributed, managed and used.

Children are likely to value the soap procured by themselves and their parents, than that provided freely on short term.

iii. Inclusive Approaches

One Head Teacher summed a key problem of HWWS and other health-related programs in Kenya's schools with a comment that: "WASH organization initiatives were vaguely understood as the goals were not clear and approaches used to initiate them were not participatory". This statement lends credence to one of the most fundamental issues in programming. CSO's and development partners have been accused often of not involving stakeholders in their planning processes. When a Head Teacher of an institution that has purportedly "benefited" from an approach says he did not understand what the project was all about, then there is a problem. The Head Teacher is the gate keeper. He/she is the first contact when stakeholders propose to work with an education institution. The initiator needs to take time to get the Head Teacher's buy-in before making any attempt to involve other stakeholders. Quite often, project managers take short-cuts but the consequences are very clear. This was exemplified in the conclusions reached by one of the teachers interviewed: "don't expect any support and impact".

Programmers in their attempt to meet deadlines adopt a top-down approach. They lay plans in their offices and meet national level officials who allow them to work in schools. Once they obtain that permission, they begin implementation without consulting all the other stakeholders. For example, one Head Teacher said:

Very often, we see visitors driving in our compounds with big four-wheel-drive vehicles and [they] wave letters from the ministry headquarters in our face. This approach in most cases intimidate us. They have already a plan and it is like they dictate to us what they require us to do. I have no option but to assign a staff member to work with them. As we were not consulted, the timing may be wrong so we do not take time to learn what they want to do and provide maximum support. We act like mere robots... Let them accomplish their activities and go. Most of them imagine we want money when we complain of lack of time but that is not the point, we are happy to

welcome NGOs that want to assist the children but proper channels must be followed. The teachers, parents and the children must be properly briefed....they also have a say and know what is good for them...this is all we ask for...consultation. Include us from the beginning and we will feel happy and own the activities.

There are several lessons I take from this statement. Before commencing development projects, it is important to note that being able to identify roles different partners play and involving them in planning processes is critical for the success of initiatives. As much as the officials at the national level are important, the community gatekeepers are more important as they can help you succeed or bring initiatives down. The local leaders, even those who are illiterate, understand the dynamics of their community more than the project managers and ministry officials. When the top-down approach is used, including the school management receiving instructions from their national officials, the local leaders view it as condescending attitude both from their superiors and the project managers and create resentment that does not auger well for collaboration and implementation.

iv. Complement not Competition

Stakeholders presented grave pictures of how implementing agencies portray themselves as if they are in a competition, in a race to be the first to show results. They form small enclaves and curve project boundaries to ensure their competitors do not cross into their territory and adulterate their success. In pursuit of their goal to claim credit for any changes, the agencies forget their cardinal role: they are all serving the children and their work should be to complement their efforts. One government official described the situation as follows:

When NGOs visit our offices and request for permission to work with schools, they begin by asking who else is working in that area.... Thereafter, they ask you not to allow anyone else (NGO) to work in the same area. In most cases, they want to go into areas that already have been sensitized on the same subject....When we ask them to go to other places, they claim their resources will not allow them to reach the remote areas but when you look at their budget you realize that is not the case.... They want to work in these areas because they

will accomplish their activities quickly and since some work has been done there already, they will be able to show some results. That is why there are very many NGO's in one province in this country when other provinces have never had any intervention (Government official).

It should be acknowledged that some development partners and civil society organizations disputed this assertion. For example, one development partner official said: "Our interventions are based on evidence and we plan intervention based on data available which in most cases indicate the needs of that particular community.... It may be true that some provinces have more partners implementing programs than others. Provinces that appear 'neglected' may be as a result of other factors such as insecurity which has implications on operations costs". Overall, however, the interviewed stakeholders indicated a trend among agencies to look for an easier way out; very few agencies want to venture into areas where there are substantial challenges.

The issues raised here by government official and development partner suggest that there is need for consultation between school management and implementing agencies prior to interventions. This will ensure selection of sites and the work thereafter complements and feeds into the needs of the community (schools) and reduces competition that is often experienced. This finding again supports principles enunciated in the social mobilisation approach in programming (see Section 3.2).

v. Strengthening of Capacity and Support Tools

Implementers of some of these projects expect too much from us. They introduce short programmes hurriedly and want us to help them achieve their goals without giving us tools that can help us meet their needs.... They talk to us for half a day and expect we have mastered all the information that is required to assist the children and sometimes their parents. How is that possible? They must ensure that we are properly trained in order to acquire knowledge and skills that we can use to impart the information to the children. Sometimes we fail them not because we don't want to work but because we have no

idea what to do after they come for a (training) session and go back to their offices (Teacher and Patron of a school Health Club).

This teacher, who had the responsibility of leading WASH activities through the Health Club, expressed the frustration of her colleagues who are often charged with responsibilities of leading initiatives that they know very little about. It is assumed that as teachers, they have prior training from by some other agency that has worked within the school previously. “Even if it is true that that we may have undergone some training before...things change and we require updated information,” another school teacher added. Lack of materials for reference or teaching aids are some of the challenges they face. Some of the materials delivered to them for reference “have been written in medical jargon” (in the words of one research participant) that may not be easily understood.

The stakeholders said with proper planning, the agencies need to take time and to ensure that relevant, culturally sensitive and easy-to-use materials are developed for specific interventions. “What do you expect when you deliver materials showing children washing hands from taps with running water when they have never seen a tap in their county leave alone the school?” posed a Head Teacher. Project implementers prepare materials at the national level and expect that these materials are suitable throughout the country. There should be consideration for different situations and dynamics in Kenya. “Children have failed to relate to such materials and messages simply because the language and visuals do not resonate with their surroundings,” summed a government official.

vi. Weak structures and Support Mechanisms

Closely related to capacity building of local staff who are expected to implement the projects in schools is the development of structures that will ensure planned activities are implemented, monitored and accomplished based on set objectives. Apart from existence of Health Clubs in most of the schools, there are no other supportive structures in the county or sub-county level that can offer any form of support to the school.

We are lucky in Kenya to have some structures in all the key ministries that evolve from the national to county, sub-county and zones. The offices at all the levels have well trained officers willing

to support programmes that add value to the work they do at all these levels. Both the Ministry of Education and Ministry of Public Health and Sanitation recognize the role their officers do play in implementing such projects. I wish NGOs involved in implementation could tap on these structures, strengthen capacity of officers at all levels and enhance the effectiveness of their work (Development partner official).

Using the existing government county structure would not only improve efficiency but can also promote sustainability of the programmes. Since the NGOs operations do not have many personnel on the ground due to budgetary constraints, it is important they explore other ways of strengthening their operations in order to ensure that programs they initiate make an impact. One of the options available in school-based projects is to strengthen these structures and tap on their potential to support the teachers charged with these responsibilities. The government has invested heavily in training of these county and sub-county officials. “You get some of the best brains at these levels in terms of project management and technical know-how” said a development partner official. Although the argument has been that the government officers at the county level are already overloaded with many activities, the advantage is that they will not require a lot of logistical and financial support to supervise these activities. They transverse their counties on a daily basis carrying out their assignments. All they need to do is to allocate some time to stop-over in a school en-route to a function and perform the monitoring of hygiene promotion activities.

vii. No Lectures please, we are Children!

As indicated in Chapter 5, children prefer to learn in an atmosphere of fun. After going through class session throughout the day, they find it monotonous to again be subjected to more lectures on handwashing. Children we spoke to said that hygiene lecturers “have become boring and do not make sense anymore because they are repetitive and nothing new is said”. Another child said that “as members of the Health Club, we no longer look forward to the club day. The meetings have been turned into another class session. Children prefer approaches that are interactive, provoking and innovative. During a FGD, children expressed appreciation of organizations that had used such approaches during visits to their school to promote handwashing. ‘There was little talking from the visitors as they

asked as to play games.... We later learned a lot about handwashing from the game”. Another child said “our teachers need to be taught some of the methods used by the visitors and then they can use the same during club days instead of using the blackboards”. This was in reference the more common learning process where teachers write with chalk on blackboards.



Photo 7.3: Pupils and teachers watching a puppet show at Toi Primary School
Copyright: Rufus C.E. Eshuchi, 2011

The children have brought out several issues in the above statements. First, they are eager to learn but the methods and approaches should differ to those used in standard class environments; the children appreciate the engaging strategies used by the ‘visitors’ and wish their teachers could learn to do the same. This sentiments support my initial argument that teacher’s capacity need to be strengthened. If the agencies interested in promoting hygiene and handwashing in institution want to make an impact, the best investment is to impart skills in the teachers who will in turn drive the process even in their absence.

viii. Don’t use us: Engage us, we have a Voice too!

Agencies working and advocating for children strongly promote children’s right to express themselves and to participate in the projects that concern them. My experiences over the years as National Handwashing Coordinator indicate that paradoxically a number of agencies used to plan activities for children without even consulting them, leave alone making an effort to involve them. Children would be invited in the session at the last minute to only

endorse plans and decisions that had already been made. At this point the project managers would brag that they involved the children. Although young, the children who participated in this PhD project indicated that they were aware of this paradox and wanted better. One, for example, said:

We don't want people who come to our schools just to use us as objects to make money and go away. We want them to know we are aware of our rights and we are willing to work with them as long as they are open....our teachers are here as our parents. We want them (project implementers) to talk to them and if we have their permission, we will participate in these activities...but only if our wishes are respected. They must know we are like equals...even children have a voice and no one knows our problems more than ourselves (Child, FGD participant).

Snel (2003) emphasizes that children must be important participants in all aspects of school health programmes and not simply the beneficiaries. This perspective was endorsed by the children, teachers, parents and other stakeholders involved in my PhD research.

ix. Are Teachers too Busy? Motivate them!

“Who said we are too busy? Just motivate us and you will realize our potential,” said one teacher during FGD, as her colleagues nodded in affirmation. Coming from a teacher who had been working with the children in puppetry workshop without any payment for one month, I was taken aback. Previously, I had been made aware that teachers are unwilling to take on extra responsibilities, because they already feel overtaxed with the heavy academic curriculum that demands their time to coach pupils especially in upper grades even after working hours. For more than four years when I worked as the National Handwashing Coordinator, we were cautioned by government officials that we should not further overwork the teachers. Some officials even suggested that since most of these projects are donor driven, we had project funds to compensate the teachers financially for the extra work they do. I always resisted participating in any discussions where the teachers would ask to be paid, as my argument has always been the so called ‘extra’ work is for the benefit of the children and the community.

This statement made by the teacher during the FGD prompted me ask a question that I had been holding back for many years during the period I have worked with school teachers on a number of initiatives. “How would you like to be motivated? What can we do to compensate your efforts? Given a choice, how much money would you ask for?” There was silence and the same teacher stood up with a bright smile on her face and chuckled before she addressed us in a soft and measured tone:

I believe I am talking for (the) majority of us (teachers).....I am a mother, grandmother and teacher all in one. I view my work as a calling from God....and as a grandmother and mother, it is my love for these children that makes me wake up in the morning before cock-crow to ensure they are fed, clothed and educated. If I am convinced that anything else I do in addition to that will ensure I am playing my role to improve their lives, I don't need a shilling from anybody....All I want is for you to come and tell me thank you. The best payment you can give me is to show recognition...show you value what I do...I am not doing it for you or the government...I am doing it for my child, my grandchild. Tell me...how much am I worth? (Teacher and School Health Club Patron).

A Head Teacher attending the session cut in with the comment: ”My staff have never complained and asked for money. When we say motivation, we don't mean money but there are other ways we can be motivated....once you realize the challenges we face and step in to help us overcome them, we feel encouraged that someone is able to notice our efforts...that is all we want at times”. This statement enlisted even more reactions from a PTA member and parent who said that “even at your place of work, you encounter challenges. When your boss steps in to support you to meet these challenges in whichever way, that shows he or she appreciates what you doing. But if they were to leave you on your own, you feel unappreciated,” he added.

7.2.4. Puppetry is Engaging

A colleague working in international development had initially been critical of my study when I mentioned to him my puppetry approach to addressing HWWS. However, when I extended invitations to colleagues from the handwashing fraternity to attend the puppetry performances, to my surprise his criticism developed into keen interest in the activities and went out of his way to ensure he watched the children perform in all the three schools. I was unaware of the reason for his interest until after we both visited one of the schools where Grade One children were rehearsing for their grand puppetry performance, which would occur during a Friday morning assembly. He sat quietly, watching the young boys and girls struggling with their lines and their little hands wearing the socks and paper puppets struggling to stay afloat above the rope that the teacher had tied across the stage to mark the height of the booth. After the rehearsals, he pulled the teacher aside but I could not hear what their discussion was about. As we drove back to the city, he was quiet for almost fifteen minutes as we maneuvered through the mid-morning Nairobi traffic. He finally broke his silence and softly said to me looking in the side window:

I was wrong brother. Puppetry is different and engaging. This is one of the most practical projects I have seen. This morning, I am convinced that our school programs need to be injected with some new energy and lustre. The performance (rehearsal) I watched this morning has proved several things. Firstly, there is room to teach our children new ways to communicate 'old and stale' messages. There was something new in the way the kids passed messages about handwashing that have been with us for the last three years. Secondly, I could not believe I sat there for more than 45 minutes watching papers and socks telling me a story...it was so engaging. As an adult, I thought I was going to lose them after the first few minutes...but there I was, mesmerized...just watching the small boys and girls reciting poems, singing and telling us their stories...

He was not the only adult sceptic at the beginning of the project. When one parent was asked to allow his child to participate in the workshop, he termed the activity 'childish and a waste of time'. This contrasted with feedback from parents at the end of the project, which

indicated that they saw the value of activities. For example, two parents participating in the FGD pointed out that the initiative had provided learning opportunities for them as well. One of them explained that “my child now comes home and when we forget to wash hands he says...that cartoon at school says you must wash your hands before you eat ...or the cartoon says you must wash your hands with soap after the toilet...this is information I thought I can only get when I attend a seminar...not through the cartoon and the child”.

This statement from a parent reinforces my assertion in Section 4.1 that children are good ambassadors and whatever they learn at school is also shared with peers and parents out of school. It also confirms the contention made in Section 7.2.4 that puppetry can thus be very engaging and appeal equally to children and adults. The playful nature of puppetry may seem childish, but the inclusion of, comedy, satire, parody, caricature and even tragedy in puppetry have been used to convey very important messages that may be retained in our memory for a long time.

7.2.5 Puppetry places children in central role

Children’s rights advocates during the last five years have been calling for anyone working with children to ensure that children play a leading and central role in the activities from planning to implementation (UNICEF, 2009). The children must have a say in their affairs, make critical decisions on matters concerning them. In short, the advocates want to hear the children’s voice. This is the philosophy behind this study. Children were selected in a democratic and voluntary process to participate in a project meant to improve their lives and their families. The process taken to implement the project ensured we lived to the spirit and letter of our philosophy. With minimal guidance from the research team, the pupils contributed towards the script writing process, selected the characters (including casting), constructed the puppets and went as far as designing the set and décor used during performances.

During the rehearsals, the children with the help of the research assistants took charge and directed the show; contributing ideas and changing the scripts to suit the evolving storyline and messages. The patron of one health club described how fulfilling it was to see the children participate and ‘own’ the exercise:

For the years I have taught these children, I had never realised how much potential we are sitting on...In a very democratic manner, they listened to each other, shared ideas and reached consensus without my help. They would at times argue over the way they should pass the message...they seem to clearly understand how their peers would receive and interpret it (a message)...something we adults never think about sometimes. We in most cases assume children are able to comprehend messages in any form. This process made me realize how mistaken we are most times when we are talking to these children. We assume a know-it-all attitude without considering that the children know what they want.

This statement was supported by other stakeholders interviewed who worked or took time to observe the children during the workshop process. They all agreed that the puppetry initiative was a very good approach to promote HWWS as “the children who are the main beneficiaries of the idea would also be the ones to promote it”.



Photo 7.4: Glove puppets created by children at Premier Academy
Copyright: Rufus C.E. Eshuchi, 2011

7.2.6 Puppetry approach enhances participation

The role of participatory approach in specific types of communication for specific purposes has been emphasized in Section 3.3. Involvement and participation of the children in the process of planning and execution of the puppetry project created ownership on the part of the school community and especially the children themselves. The school management in our initial discussion (see 7.2.3.3) had expressed their frustration that the school community did not understand the objectives of a number of projects that had previously been initiated by ‘visitors’. From the discussion with stakeholders, it was evident that the approach taken to introduce the puppetry initiative leading to workshops and performances enhanced participation and ownership. The whole process of the initiative (see 4.2 and 7.2.3.5) describes in detail how the children were involved in the puppetry workshops and performances. “Attempts to introduce shortcuts to this process would lead to a situation where the chances of imposing an idea on the teachers and the children in the workshop to pass to the school community is zero”, as one government official observed.

A teacher in charge of a health club pointed to the bottom-up approach nature of the puppetry project, which enabled us to take all voices into consideration and allowed the group to collectively synthesize ideas and reach consensus:

In the past, we have had to read books and documents we obtain to understand the subject and messages that suit the children. This has not been easy especially if you are alone managing the club and at the same time carrying out your other duties as a teacher. What we have learned from this approach is that one does not have to labour to know everything. Everyone has a role to play and through their contribution and participation, we are able to come up with messages that are acceptable to all. There is a saying in my community that safari ants are tiny but they carry five times their weight....this is approach has showed us that it is possible....a big task has become lighter with all our active participation.

7.2.7 Sustainability of puppetry activities

“Institutionalization can guarantee sustainability of puppetry but it requires policy backing,” one government official said during an interview for this research. Following the completion of this puppetry project, management in the three participating schools wholeheartedly welcomed the idea that there should be policy backing to continue puppetry to promote health and hygiene in schools.

The involvement of the school management and the community, and their buy-in and trust for the puppetry initiative, can be considered one step towards sustainability. Less reliance on donors and the government in favour of increased resolution and contribution from the communities to promote the project is a positive step. With policy backing in place, there is a high possibility banking on positive response from all stakeholders, the initiative can be sustained.

Another official observed:

There are indications we are moving in the right direction. With innovations such as SOPO and puppetry, Kenya is seeking to share and disseminate information differently from the traditional approach. If we expect behaviour change, we must be ready to adopt innovation and social marketing approaches. We must be ready to learn from the private sector. How come the private sector launches a product and manages to convince people to begin using it...even leaving an old product they have been used to? That is where social marketing becomes very useful. (Government official)

But it is obvious that this project faced a number of challenges (see 7.2.6) that had to be addressed to ensure it ran smoothly. This provided insights about what should be done to ensure the success of similar projects in future. The following sections summarises some of the key areas identified that need to be addressed in order for the initiative to succeed in primary schools.

- **Structures and institutionalisation**

Any project requires some formal structures to operate within. Most Kenyan schools do have clubs (health or environment) under which WASH activities may operate from. This however is not enough as these clubs require to be rejuvenated in a number of ways. As indicated earlier in section 7.3.3.6, structures will not only be required at the school level but these support structures should be established from the national, county and zonal level. Already at the national level, there is Hygiene and Sanitation Working Group coordinated by the Ministry of Public Health and Sanitation with membership of key partners and stakeholders such as the Ministry of Water and Irrigation, Ministry of Education, Ministry of Local Government, development partners (including UNICEF, WHO and the World Bank), civil society organizations and private sector.

It is recommended that where possible, representatives and officials of these key stakeholders have a similar forum at the county and zonal level to coordinate handwashing with soap initiatives. Apart from coordination, the Working Group at the national level will also play an advisory role, provide technical support and help develop capacity of partners at community and school level besides other functions that will ensure the initiative is structured and proper institutions are in place to ensure the initiatives success. As one official interviewed put it:

For over four decades, the government and partners have invested heavily in hygiene promotion and more specifically HWWS. During this period, very little resources went into advocacy, partnership creation, establishment of structures to sustain the initiatives, innovation, varying approaches, research, and strategies based on evidence just to name a few. These in my own opinion are the challenges the initiatives have had to struggle with hence our inability to monitor, evaluate and show the impact of our investments. (CSO Official)

- **Curriculum and Capacity Development**

Based on experiences with other extra-curriculum or curriculum-based activities' operating in schools, there is scope to include puppetry into the formal curriculum. Music, poetry and drama have flourished because they are incorporated in school curriculum (in

the syllabus, taught in class as an examinable subject) as well as extra curriculum (not included in the syllabus but taught during club days for purpose of the children competing at different levels with other schools). This approach has enabled the children to learn and develop skills in these genres. At the same time, the capacity of teachers who are involved in these activities in or out of class have been developed. The genres are taught in the teacher training colleges as an examinable subject enabling the teachers to equip themselves technically to handle the classes and other challenges they may encounter. During inter-school competitions, teachers and the education officials and other art lovers join hands to plan and adjudicate the events.

However, these changes cannot be effected on a wide scale without intervention at policy level. The Ministry of Education would need to kick-start the process by drafting a Policy Paper that recommends such changes. The Policy Paper would have to be reviewed by the ministry technocrats and then stakeholders in the education sector would be invited to discuss and make their contribution. The Policy Paper would then be tabled in the Cabinet, and if it is ratified, it is then made available to the ministry for implementation. The Kenya Institute of Education would ensure the content is included in the curriculum for teaching purposes or in extra curriculum activities. One of the CSO officials interviewed for this research warned that any formal policy change would require a long-term approach:

We acknowledge that puppetry is a complimentary way of disseminating the handwashing messages. Existence of an organized club in the school serves as a platform for puppetry activities. Once policy issues have been sorted out, stakeholders through the relevant department (Kenya Institute of Education) will have to develop a curriculum for both teachers training colleges to train teachers in puppetry. It will be nice too if puppetry can become one of the genres children use in the Kenya Schools Drama Festivals (held every year)...this will popularize puppetry across the country (CSO official).

- **Advocacy**

As indicated above, a major advocacy initiative need to be designed to enable those in

positions of influence at national, regional and community level to understand the benefits of puppetry. One major concern to be addressed is the feeling that puppetry if adapted will replace other methods. As stated in my introduction, this method is not aimed at competing already existing approaches in addressing handwashing with soap issues; rather it is supposed to complement the work being done by other players to simplify messages, encourage community participation hence ownership and give children a voice in issues concerning them.

An official I interviewed who works for a development organization expressed his reservations regarding a quick adoption of a new approach:

It is not going to be easy especially for civil society organisations to buy-in. Most of these agencies either don't like change or are driving someone's agenda. It is like any new idea that comes up may be seen as competing theirs. If your ideas show better results, it may be accepted by those who are ready to accommodate you or rejected by those who fear competition and hard work. The latter are many in the development field. Be ready to be criticised and dressed down by this group. (Development Partner Official).

The statement above shows that people are always very apprehensive of new ideas when they are introduced. The first feeling is to try and protect their turf as they imagine new ideas or approaches introduced may make them lose their livelihoods. This is very common especially among civil society organizations. One way of ensuring they keep status quo is therefore to become critical of the perceived threat and look for mistakes or shortcomings that may exist. These fears as baseless as they may appear must be addressed so that the puppetry initiative faces less resistance among the stakeholders.

This challenge echoes what the DOI theory (see Section 3.4) addressed. Among the stakeholders, the spread of ideas from one society to another or from a focus or institution within a society to other parts. Diffusion process takes place when an innovation spreads across a population of potential adopters over time (Rogers 1995). In this case, the idea or innovation here is puppetry that has to be introduced and accepted by stakeholders. An advocacy campaign based on evidence of the project's efficacy and impact also has the potential to attract supporters in all sectors (public, private, civil society organizations

and individuals in the community) who would contribute and mobilize resources critical for the initial setting of structures and training. As if to acknowledge the gigantic task in being able to sustain puppetry in schools, one participant said:

It is therefore critical that high level advocacy, community mobilization and sensitization must be carried out. Aggressive resource mobilization by the government as well as the stakeholders and school committees to mobilize sufficient resources is important to ensure materials, capacity building activities for teachers especially and establishing structures that will ensure sustainability of the approach is maintained (PTA member).

One participant indicated that “CSO’s working within their communities will be useful in convincing the stakeholders of the viability of puppetry”. The idea again is not to get new players who will have to take time and learn about the community, but to work with both partners already on the ground that the community already trust and credible players at higher level to sell the idea to the stakeholders. For example, Kenyan teachers have a very strong trade union whose support is critical. If the campaign can target the trade unions first and win their support, it would be relatively easy to sell the idea among the membership.

- **Partnership approach a Panacea to Development**

Recognizing that donor aid is dwindling and there are too many initiatives competing for these dwindling resources, it is important for players in the development work to consider other methods of supporting initiatives. In 7.2.3.4 above, we emphasized the need to complement each other’s activities instead of competing. This same spirit should be practiced when introducing new initiatives in a community. Before embarking on implementation, it is important to map out and engage with key players and potential players in the region or schools. If the agencies manage to forge partnership between them, this enables better coordination, a uniform approach, standard messages, possible reduction in operation costs and many other benefits.

Kenya has in the last five years begun to realize the fruits of such partnerships. The concept of Public Private Partnership (PPP) seemed like a pipe dream when it was mooted in the

country in 2006. In a number of initiatives, it is now apparent that this may be the panacea to development as multinationals and even in some cases indigenous private sector companies have showed interest in supporting initiatives as part of their corporate social responsibility (CRS). No evidence exists on the impact of PPP in Kenya but studies from elsewhere indicate success gained as a result of this partnership. A study commissioned USAID, UNICEF and the World Bank and carried out by Saade and others outline the success of PPP in Central America (Saade et. al.2001). This support has gone a long way in supplementing government and donor budgets that have been shrinking over the same period. In this PhD study, this was ably demonstrated by the commitment of soap manufacturer (PZ Cussons) who provided soap that was used during trials and observation and also distributed to the schools to motivate the children and management. It was also evident when a CSO such as Child Africa Media Ltd offered its expertise and experience in working with children in various health and social issues, and when the UNICEF and the World Bank contributed its technical support in the field of handwashing, just to mention a few. Child Africa Media Ltd publishes *Bingwa*, a quarterly children's magazine authored by children in primary schools around the country. The magazine addresses WASH issues and how they affect children. The World Bank and UNICEF were key to introduction of handwashing initiative in Kenya and supported the baseline study of 2009. I have singled out the three organizations as they actively participated in mobilisation activities and data collection process leading to successful completion of my PhD pilot project in the three schools.

Thirdly, partnerships create synergy. Those stakeholders who were interviewed indicated that of late there has been a lot of focus on handwashing alone by CSO's and development partners and forgotten about other related programs that would provide support to handwashing. "Initiatives have not been holistic. You cannot address handwashing alone without addressing availability of water and soap, sanitation and safe drinking water, etc.," said a school head teacher. This is true and it will be foolhardy for any agency to imagine it can implement a comprehensive program alone. The best approach is to seek partnerships with other players providing complementary elements. For example, agencies that specialize in sanitation facilities or water would provide those services, while the private sector may want to provide soap or other resources.

Partnerships between the schools and the local community were discussed by stakeholders as an important recipe in success of this HWWS initiative. Social mobilisation approach used

promoted participation of all the key stakeholders in the initiative. Parents through the PTA realized the importance of such initiative in the community and came out fully to support it contributing money to enable the schools buy materials to construct puppets by attending performances and mobilizing children. The private sector represented by PZ Cussons donated soap. In all the three schools, the local community became part and parcel of this initiative as they were actively involved. Children were motivated and felt proud to be part of a process that had support of the school management, the government and their parents. A partner during the initiative summed it as follows: “All development related initiatives have adopted partnership approach. What matters is the level of that partnership. In the case of this project, the team mobilized the local community, private sector, CSO’s as well as the public sector. This is the way to go...” (CSO official).

7.2.8 Challenges and mitigation

The following section looks at the challenges the puppetry initiative may encounter in our effort to make it sustainable. In the previous section, I explored what need to be done based on responses from key stakeholders. This sub-section looks at some of the challenges identified and tries to find ways of overcoming them to ensure implementation and sustainability of the programme.

- **Unknown and unexploited potential of puppetry**

During the project period, it became apparent during the performances and interviews with a number of stakeholders that the potential of puppetry as a communication medium is either underrated or unknown. Despite the fact that puppetry has been used in Kenya to address health issues for almost two decades, the development workers I encountered have either never given it serious consideration or just never thought that puppetry itself is a serious communication medium.

I was involved in the “introduction” of puppetry to promote health and development messages in Kenya in 1993 while working for Family Planning Private Sector. Critics at that time termed puppetry as “childish and only suitable for children”. FPPS was determined to introduce ‘Puppetry against AIDS Program’ despite key stakeholders in the health sector in Kenya expressing their reservations about viability of puppetry. The pilot project proved

critics wrong and FPPS was buoyed with that success to scale up the program nationally. History is repeating itself once more. At the beginning of my project, I heard key stakeholders criticize viability of puppetry, its potential and doubt about its suitability and sustainability in schools. As will be discussed further below, after watching the performances, fear and doubts they had were allayed from seeing just one show.

From this I have concluded that for the stakeholders to appreciate the potential of puppetry, they have to see the children in action. This is critical for policy makers and stakeholders with ability to support the establishment of structures that will promote sustainability of the initiative in schools. Even within the school community, the management, parents, teachers and the children were not quite sure they would handle the task ahead of them. But once we began the workshop process, both the teachers and the participating children realized that they had the ability and skills to carry the process through.

- **Acceptance by gatekeepers**

In Diffusion of Innovation theory, it is widely recognised that for any innovation or a change to take root in any community, key people in that community seen as gatekeepers have to approve of it. For example, Valente and Pumpuang (2007, 881) note: ‘Opinion leaders can act as gatekeepers for interventions, help change social norms, and accelerate behaviour change’. These key stakeholders are always looked up to by community members to provide direction on critical issues that affect them.

In line with the social mobilisation approach, I was able to meet with a number of gatekeepers in the respective communities, such as members of parliament, councillors, CSO officials, chiefs and other traditional leaders etc. Several meetings were held prior to introduction of the project in schools. Even after the workshop process began, some of the gatekeepers still had their reservations about the viability of puppetry. Some raised concerns regarding the time that children were being engaged “at expense of their studies”.

The major challenge was for this group of individuals in the community to accept a new innovation. They are so used to promoting hygiene practices in a class environment without much interaction between the teachers and pupils. But after a series of discussions and observation of the children performing the shows, they verbally acknowledged the importance of this pilot project and accepted puppetry’s viability. The lesson I learnt during this process was that it takes time for community members and especially those in positions

of responsibility to be convinced and accept new ideas even if they are for their benefit. Thus, the idea must be introduced to them through a careful process to ensure they all understand and give it due consideration before it is implemented. In my case, I explained to them what my initiative was about, the process, their expected involvement and the expected benefits.

- **Time and resources**

The greatest challenge we faced from the onset was the time the process of implementing the pilot project took. I encountered a number of obstacles in obtaining clearance to carry out this study from Kenyan authorities I experienced a delay of six months while I waited for various bureaucratic agencies to provide permission to commence research. Had all my plans gone as scheduled initially to begin collecting data in February 2011, this may not have been a major challenge but the consequence of this delay was a rather rushed process in the methodology. Instead of the performances and observing the handwashing practices for 12 weeks, we reduced the period to two weeks to enable us conclude the project at the end of the school term just before schools closed for Christmas and New Year vacations. The children participating in the puppet shows had to be released during class hours for rehearsals, as we did not want to engage the children late in the evenings and weekends. This was so especially during the last two weeks of the workshops before public performances.

7.3 Understanding Children's Behaviour and Puppetry in the School Environment

The art of living is knowing how far to go – then going a little further - anonymous.

In an attempt to answer some of the research questions, Section 7.3 examines the process of establishing and implementing puppetry workshops in the three study schools. It attempts to answer the secondary question: what is the effectiveness of puppetry in disseminating information on handwashing with soap in schools. This subsection breaks down the process and how the children were engaged and benefited from this process. Stakeholders and children interviewed said that through the puppetry workshop process, they were not only able to disseminate messages on HWWS, but in the process, they learned other skills that are likely contribute positively to their artistic growth.

7.3.1 Methodology to Puppetry Activities

There are two meanings to the word “facilitator” in Section 7.3. The first is facilitators of puppetry workshops, i.e. you and any assistants who guided/led the children in the process of developing the puppetry theme, creating puppets, writing stories, etc and building their presentation skills. The second are the child facilitators who were the “narrators” of the puppetry shows that were eventually performed..

The adult facilitators (the three Research Assistants and I) worked with the school’s management to identify children who participated in puppetry workshops as well as FGDs that followed. The selection process was described in Section 2.1.2. The team identified the key messages and made outline of scripts. Characters were selected for the performance and the roles divided amongst the team of 12. They constructed the puppets or repaired the old ones they had and began rehearsals with support from the teacher and the Research Assistant. The child facilitators (narrators) were trained on how to handle the audience and guide questions/comments and answer sessions. In addition to the research assistant, I enlisted the services of six other volunteers (young male and female; two per school) who assisted in observing handwashing habits of children.

The adult facilitators met the pupils on different day of the week depending on time allocated by the school management. In Boonhouse, we met the team for a total of 28 hours on Tuesdays and Fridays. In Toi, the facilitator met the pupils on Wednesdays and Fridays for 24 hours while Premier Academy meetings took place on Tuesdays and Thursdays for 20 hours. All the meetings lasted an average of two hours within the school compound in the presence of a teacher (club patron).

The performances were participatory as the narrator from time to time posed questions to members of the audience in an attempt to unlock dilemmas in the play. The audience in most cases would debate and come up with solutions to the dilemma/problem posed. Further details on puppetry workshops and performances are in Section 7.3.2 that discusses how puppetry promotes innovation and skills and overall approach on how children were engaged and became the leaders/drivers of the process.

7.3.2 Puppetry promotes innovation and skills building

One teacher who was in-charge of the workshop had this to say during the FGD:

If it were not a requirement that a teacher has to supervise them, I would have as well gone home...the children once given a free hand are able to take charge and take decisions even better than adults. Even the ones (children) I did think would not offer any advice easily settled in after a few days of rehearsal and took up leadership roles very easily. Amazingly, without even prompting from anyone, the leadership role rotated among all the children involved with time...one minute it was child 'X' leading and the next minute it was child 'Y'...This process helped the children develop qualities that we had never witnessed before. Even the shy ones were able to bring out their hidden talents as never seen before.

This statement supports my thesis that puppetry is not only an approach to disseminate information but a number of key skills are likely to be developed or strengthened in the workshop processes. These processes included:

i. Scripting and characterization

Conceptualizing a story and writing a script for the story is not a skill that most people, leave alone children, are used to. It is, however, a skill one can learn when they have interest and an opportunity to do so. The process of puppetry workshop for this study began with children, with the help of the teachers, creating a script with key messages on handwashing with soap. Children were asked to think of situations when they put themselves at risk due to poor hygiene practices. Ideas flowed as children engaged each other in arguments on how to craft the messages. The teacher and the research assistant took note of the key points that were identified and agreed upon.

Next, the children plotted roles and characters in the story. They were however requested to limit the characters in the story to a maximum of 10. More than 10 characters would have made the story too long, required more puppets and at times involved a big cast. Once the casting was finalized, children tried out the storyline in a role play. Initially some of them were shy as they had never acted before. The

unwritten script was rehearsed severally with changes made on the wordings and messaging in the process. This process was important to ensure the messages were clear and easily understood and the team was sure of number and type of characters required before embarking on puppet construction. Once the children started rehearsing with the puppets, the shyness and fear reduced. The children became more confided when they mastered their lines.

The children then were asked to write this script that they had plotted and finalize it in a play form. This was done by a few of the children selected by the team and the scripts were thereafter reviewed by the teacher and research assistant to ensure they met the required standards and was technically ideal for a puppetry performance. I noticed that the skills to write the script was initially difficult but I encouraged them to write down the ideas as they flow and the team will review it and make corrections as necessary. It is important to note that the children led the process and at each stage had a free hand in determining what to say, how to say it and when to say it to fellow children in a manner they were sure the other children would understand best.

One school had a story that highlighted the ignorance of parents on issues of hygiene. The parents do not participate in PTA meetings in the school hence have no idea what the school management goes through to ensure the children learn in an environment that ensures the children are not only reminded about handwashing but are encouraged to practise it both in school and at home. The parents do nothing to support their child and when he falls sick, they end up blaming the school management of what has befallen their son. Both children and parents who have been supportive of the WASH initiative defend the school management and encourage the parents of the sick child to get involved. Another script simply highlights incidents when children end up eating their food without washing their hands with soap. The story addresses obstacles that have prevented the children from HWWS and appeals to the community to address these limitations. Interestingly all the scripts seem to suggest that solutions to promoting HWWS are found among the school community members. They suggested that if the community around the school took keen interest in their children's welfare while at school; ensure they worked with the school management to avail water and soap, the community will reap the benefits of this gesture as much as the school.

ii. Construction of Puppets

In a few instances, the children bought puppets or brought puppets from home. However, from the onset, we had decided that it would benefit the children to learn the skill of constructing puppets using locally available materials. Due to limited time, we decided not to design and construct complex puppets using glue and polystyrene as earlier planned. We used paper, sock and cloth puppets, which were simpler and easier to construct. Although such puppets have a shorter user period as they are not as robust, they never the less served their purpose and the children still experienced the excitement usually created as they developed their character, painted and clothed the puppet.

Before constructing their puppets, the children sketched the characters on paper. This exercise helped the child to begin visualizing their character so that by the time they begin construction, they have developed a mental picture of the puppet. I noticed majority of them were challenged as not all children are good at sketching and we made them understand that this did not have to be a perfect drawing but just an image that gave a sense of what they were about to construct. The idea was to ensure the children go through this process themselves to own the end product.

As is usually the case in my 22 years' experience working with puppetry troupes, puppeteers usually become attached to their puppets and never want to let anyone else use them. They become possessive and guard them jealously. The children developed very 'close relationship' with their puppets throughout the workshop period. This attachment results because the puppet and its character represent what the puppeteer believes in. They develop such a strong bond, because it is through this character that the puppeteer expresses their opinion and feelings. In some cases, the puppeteer invests so much time and devotion to this process that they may see the puppet as part of their being. Deep feelings (probably the ones that cannot be expressed elsewhere) are easily expressed by the puppet during performances without fear or embarrassment. This finding supports the review of puppetry carried out in Chapter 5.

During and after construction, we discouraged the puppeteers from mishandling the puppet by throwing it around, dropping it or similar rough handling, which we termed 'puppet abuse'. This disciplined treatment of the puppets also contributes to the

puppeteer's attachment and belief that they have given the object 'a breath of life' and therefore is a live character as mentioned in Section 5.1.

A teacher in-charge of arts and crafts in Class 5 in one of the schools noted that the construction of the puppets led to an increase in fine arts and crafts among project participants more generally.

iii. Manipulation

The beauty of puppetry lies in manipulation of the object. Without proper manipulation, the object is static, lifeless and boring to watch (see Section 5.2). This is one process that can be fascinating but as it is done repetitively, it becomes tiring hence unappealing. My experience as a puppet show director shows that it is mostly during this process that most puppeteers in training opt to drop-out. The exercises put the puppeteers under extreme pressure both physically and emotionally. The children in all the three schools were not an exception. I noticed the pressure this exercise put them through during the first two days of manipulation. None of the children however complained.

We tried not to overstretch the children but at the same time provided sufficient latitude to ensure they understood what was required of them. We discouraged long rehearsals under direction but encouraged the children to carry the puppets home and practice the movements on their own during their free time using a mirror as the reflection helps them see the levels and the movements. As the scripts were not lengthy, the puppeteers had short roles to play making their experiences fun and interesting. Due to the short rehearsal sessions, the children adopted a system where they worked in pairs during their free time. They practised manipulating the puppets one at a time with their colleague acting as the 'director'.

iv. Décor and costuming

The puppetry show is never complete without the team working on ways of enhancing the stage décor and puppets costume. In this case, I recommended a simple set and décor considering that the schools did not have a budget to finance an elaborate production. After the rehearsals process began, the children were asked to suggest

what they thought the set should look like. Again, we gave children paper, pencil and crayons to sketch and colour the drawings. The drawings were shared among the participants and a couple of them were selected for the overall set the design, although the facilitators did suggest how to improve the sketches. Because of time constraints, we did not fully exploit the available talent among the children. During other puppetry workshops over the years we have trained puppeteers, the practice is to let the puppeteers design and improve on the images drawn to ensure they reflect their thoughts and feelings.

These images were transferred to a large canvas that was hung in the background during the performances. Although not done professionally, it enhanced the décor. Additional props were placed on the stage in various positions such as flower and potted plants. The idea was to trigger the children's imagination about possible ways of communicating performance settings.

v. Performances

A performance is the climax of any puppetry workshop. All the three schools scheduled their performances on different days of the week based on individual school activities. A common factor among all the three schools was that all had one performance during school morning assembly, a sign that it was highly regarded by the school management. Assembly time is prime time on school timetables. All students and staff must attend as it is during this time that all important announcements are made. Other performances were scheduled for smaller groups at either class or club level.

The performances were intended to encourage participation of the entire audience that included children, teachers, parents/guardians, school auxiliary staff and other invited guests. The facilitators were trained to ensure they solicit views of the audience at various stages of the performance. For example, if a puppet character posed a problem/obstacle to handwashing, the facilitator would quickly step in and ask the audience to offer some solutions. A few people would be invited to offer possible solutions and the facilitator would tactfully ensure the solutions are sound and practical before shifting focus of the show back to the puppets. A longer question and answer discussion (15-30 minutes) would be held after the show to ensure issues that

were not clearly understood are discussed with the support of a teacher or a local public health officer if present.

In one instance, the discussion by the puppets mentioned the unavailability of the soap for handwashing. The teacher (puppet character) wanted to know how the school can overcome this barrier. The facilitator at this point asked the audience, who included parents, to offer suggestions. At the end of the discussion that took less than three minutes, four parents had suggested that the responsibility lies with them (parents) to ensure they contribute funds at the beginning of every school term to ensure soap is bought and available for handwashing. There were instances when no clear solution was found. An example was on disappearance of soap from the handwashing stations after placement. The participants suggested that this should be left to the school management to come up with a practical solution. This finding again supports the view I advanced that puppetry approach enhances community participation. Community members were able to identify problems affecting them and come up with home-grown solutions to these problems (see Section 4.1).

In Premier Academy, the school management invited parents to attend this performance. In Toi and Boonhouse schools, parents were also invited but on different occasions. Both schools had Thanksgiving Prayer sessions to dedicate Grade 8 pupils who were sitting for their national examinations. It was during these prayer sessions that the puppeteers performed to the parents. I also invited stakeholders from various organizations and most of them found time to attend at least one of the performances spread over a two weeks period. The schools organized more performances that either targeted different groups or occasions during November. Key interviews and FGD were conducted soon after the performances with different officials and teams.

For the ethnographic approach to succeed within the school environment, initial work has to be done to minimize the challenges it may pose with the subjects.

- The School Environment – As this study was mainly looking at promoting handwashing with soap in schools, it was important to find an appropriate and convenient way of capturing both qualitative and quantitative information. Children on average spend eight

hours per day in the school environment, from 8.00 a.m. to 4.00 p.m. Approximately five hours or less are spent at home after a day in school before they sleep, save for the weekends. The ethnographic approach (see Section 2.2) ensured that children were observed in the environment that preoccupies most of their time on weekdays, and analysis of school settings is therefore important for future interventions given the influence of this environment on understanding and behaviour.

- Entry in the community – In Kenya, Ministry of Education is the custodian of all education institutions. For one to gain entry in the schools, you have to obtain permission from the accounting officer in the ministry; the Permanent Secretary or his appointed authority (See Chapter 2 Sub Sections 2.1.1 and 2.1.2).
- Establishing rapport – Having gained the confidence of gatekeepers and the school management, the school environment became an easy and safe surrounding to work from. The team of nine puppetry assistants plus myself spent well over eight weeks in the school from the beginning of workshop process to performances and observations. By this time, the team (puppetry assistants and I) were considered part of the school community. Both the children and teachers established good rapport with the team and freely discussed issues around hygiene. Although it was a requirement that whenever the team interacted with the children, it had to be in the presence of a teacher, the children did not find the teachers' presence to be an inhibition after a couple of weeks. The children were always looking forward to the workshops and the performances. It was, therefore, easy to bring in the observers during the performances and for them to mingle with the children and conduct the observations without raising any suspicion of their intentions.
- Controlled environment–Initially, we had anticipated some difficulties during observations of the handwashing behaviour in a school environment. As the children know members of the school community, any stranger who enters the school raises eyebrows and the children and staff are likely to be suspicious of their intentions. Fortunately, this did not affect our observations, as we were able to quickly establish rapport with all the stakeholders, gain their confidence, and collect the data without much hitch.

- Non obtrusive – Ethnographic approach proved to be non-obtrusive as we worked with the children through the puppetry workshops and to the performances and observation. All the process provided useful learning and the children were not aware that particular things that they did or said were of value to us. As described earlier in section 8.0, the interaction provided extremely useful insights that no other data collection methods could have gathered. During the workshop process for instance, the children brainstormed about various messages and how best they could communicate the information to their peers. We let them argue and eventually reach a consensus. This process made us realise the following:
 - Children are very resourceful, and, when given appropriate support, display high level organizational, leadership and artistic skills.
 - Children know what they want and are well placed to design the messages and convey it to the peers in a “language” they understand best.
 - Children enjoy learning in a fun way. They are able to become creative and innovative when given an opportunity and space to do so. .
 - Children are good ambassadors and whatever they learn in school, they share it at home. Parents whose children participated in the workshops attested that their children shared details of information acquired during this process and have become handwashing champions in the community.

7.3.3 Facilitation, questions and discussions during puppetry performances

Facilitation is one of the key elements in the puppetry performances. It is during the facilitation process that questions are asked and discussions follow that enhance the quality of the participatory approach. The terms facilitator and narrator are used interchangeably in puppetry. The role is played by an individual who is also referred to as the link between the puppets and the audience because we get to hear most of the story through this individual. He or she introduces the show, leads us through different scenes revealing to us the plots as they unfold. He/she can take us forward or backward depending on how the plot unfolds. The individual playing this role spurs the discussion as he/she plays the role of a catalyst or ‘devil’s advocate’. As a puppet show is designed to be participatory, the facilitator plays the crucial role of linking the audience with the puppets to ask questions and provide solutions to the problem/issue being addressed. This role calls for innovation, ingenuity, cunningness and

resourcefulness. Techniques used by the child facilitator/narrator in this project to ensure the audience was involved in the community performance included:

- Music, dance and verse – sing and dance to a popular tune, recite verses that resonate with the audience. This served as an ice breaker and encouraged the audience to take cue and participate in the show.
- Telling stories – popular stories when recited during a performance helps psyche the audience. Stories that are commonly told to Kenyan children generated interest in the show as they were relevant to the storyline.
- Asking questions – The facilitator/narrator used the opportunity between the scene breaks to ask questions about the previous scene. As children’s concentration span is short, this was important to ensure they had followed the story. It is important for a facilitator to know how and when to ask questions. The questions asked were related to the handwashing issues touching on what are the barriers and motivators from their point of view. The questions also helped to solicit useful comments that direct the discussion toward the preferred agenda.

In short, the facilitator/narrator is like the driver; he/she controls the show, varies the pace, stimulates discussion, and ensures the right answers are given. The facilitator must skilfully sum up what has been said (or not said) to ensure the audience leaves the venue with a solution to the issue(s) at hand.

7.3.4 Outcomes of the Puppetry for HWWS Project

The puppetry approach is one of the key pillars of this thesis. The key question that was set out at the beginning of the study was to explore what is required to make handwashing with soap interventions work in schools and factors that enable implementation of an effective programme in the primary schools in Kenya. Section 7.2.4 synthesizes the stakeholders and children’s views on puppetry as a medium to address hygiene issues among children. Discussions with stakeholders went into details of implementation and further identified challenges this approach may pose and makes suggestions on how to mitigate this challenges. A number of the parents said that this was the first time they have had an opportunity to watch a puppet show. Some said they had watched puppetry performed by community based groups but had never envisaged their children performing leave alone constructing the

puppets. Those who watched puppetry for the first time admitted that they had formed an opinion this was a medium that appeals to only children but their exposure to the show had revealed that it was not “kiddish” as they had thought.

All stakeholders liked the idea of education and entertainment (see Section 3.3) that the puppetry idea promoted and the parents especially commented on being impressed at how much knowledge their children seemed to retain after the shows. One parent commented: “We have been talking about handwashing in my house for a while and no one seems to remember to practice it, but after watching the puppet show, that image of a puppet is fixed in our minds and we find ourselves laughing at it but most important, remembering to wash our hands at the four times the puppet told us.” This supports the theory promulgated by education-entertainment theorists that the approach enables the audience to remember and practice what they learn (see Section 3.3).

One of the teachers in the FGD said: “She suggested that this approach has worked well for her in issues relating to homework and discipline” . Although the teacher was unable to explain clearly what this would involve in practice, further discussion with the school management indicated she was proposing a branded campaign such as SOPO. The SOPO Initiative as described in sections 1.1 and 6.4.1 is a multimedia campaign (animated TV film, print materials, community and school activations) being implemented by MOPHS. The SOPO character (a green mascot) is simply referred to as ‘the children’s best friend’ and has become a household handwashing brand in Kenya. Once you mention SOPO, children visualize the green mascot that represents the SOPO character, and handwashing ambassador. The mascot is a cartoon like character that stars in the animated SOPO film, and is always rushing to the children’s rescue from germs. The puppets created by the children had very many similarities with the mascot and even some parents and teachers simply referred to the puppets as “these cartoons” in our discussions. This seems to suggest that the two approaches will not be at complete variance. Puppetry seems to complement SOPO character pretty well and are all seen as “children’s friend” in promoting handwashing and creating champions out of the children.

A caretaker at one of the schools also said that she had seen a marked change in behaviour since the shows had been staged at the primary school. She further explained that “the children usually come looking for the key to the main tank when the water runs out of the

smaller tanks. They usually ask for the key to the water tank in order to wash hands after visiting the toilet. They never used to do this before”.

The government official who watched the show identified several key elements to why the puppetry shows were successful in conveying a memorable message that influenced behaviours:

When a child speaks to another child, they have a language, signs and codes which as adults we may never understand. A teacher or a parent speaks from a position of authority. That position is respected but does not necessarily mean the children agree with what the adult say. Even when they (children) agree, it may not be easy to observe what they have been told. On the other hand, when a child talks to another child, it is from a position of empathy. The child understands the needs of the other child much better than me. It is therefore possible that they will agree as the tone, body language etc... may just strike the right note...that is what they require...child-to-child approach.

The official then paused and asked: “Is this probably what we have been missing over the decades we have been using different approaches? How important is the role of children in driving their own agenda?”

The process followed during the puppetry workshops has also benefitted the children involved in the puppetry performances by developing their characters as young adults who can play a role in shaping the lives of their peers. For example, this process enabled the children to develop patience, assisted them to take and appreciate instruction but more important, develop a culture of perseverance and self-control. Teachers interviewed confirmed they have noticed a change in character, behaviour and habits among children who took part in the puppetry workshop process. For example, one said:

There is a child in my class who was very withdrawn and never liked to participate in a discussion or even answering questions unless when prompted by the teacher. He happened to be selected [see selection criteria in chapter 2.1.1] to participate in the workshop. I

think he was prompted by his peers to sign up. Initially, the club patron expressed his reservations to me whether he will manage. As days went by, he was able to fit in and came up as one of the best performers. This has had a positive effect on his overall character. The boy has become so confident in class and he is able to respond to questions and participate in discussions. He is no longer a loner as before...I cannot say for sure that puppetry workshop is the cause of this change but coming so soon after his participation, I am tempted to believe the workshop (puppetry) contributed to this change.

7.3.5 Challenges of the Puppetry for HWWS Project

The challenges related to data analysis are also reflected in the data collection itself. That is why in the study: *Can Hygiene be Cool and Fun? Insights from School Children in Senegal*, Sidibe and Curtis observed: “Conducting observational research among children, especially in busy settings such a primary school, requires different research skills to the interviews and focus groups routinely used with adults. To produce valid results when working with children, the methods must correspond to their interests and capacities, and work within the delicate institutional structure of a school’ (Sidibe and Curtis 2007, p 3), When observing an activity, two observers are likely to record two different observations of the same event. I tried to overcome this challenge by asking the observers not to draw any conclusions or inferences from the information collected at the field level. The aim was to reduce the disparities in reporting and interpretation. The checklists were developed with highly structured and prescriptive categories in order to guide the observation process in a way that also minimized variations shortcoming and helped to clearly identify facilities, infrastructure and supplies made available in schools such as water, soap, toilets, etc.

How objective can a researcher be when applying ethnographic methods? The ethnographic approach helped me gain complete understanding of the whole study and the process. However, in all ethnographic research, it is possible that researchers may become so engrossed in the process that they lose objectivity. It is almost impossible as a researcher to divorce oneself from the subjects. As Winget (2005) noted the difficulty that exists to fully comprehend the events and for a researcher to be able to achieve that level of understanding, there has to be some interrelationship as it is not only impossible to have an objective

distance, but also because striving for objectivity is not a realistic goal and perhaps even counter-productive. In order to maintain the benefits of ethnographic method, but not become too subjective, the data collected was validated before analysis through triangulation of methods – such as observation, participant observation and contextual analysis - provided a range of perspectives and data that reduced the risk of drawing conclusions from a narrow outlook. Despite these challenges and limitations, ethnographic approach in this study proved very useful as an effective method of data collection with more advantages that outweigh the limitations inherent in the approach.

This PhD study has examined the lives and activities of children in school in a non-obtrusive manner. It would have been very difficult to gain into these insights without applying ethnographic approach to this study. Ethnography when combined with other methods (FGD and KII) enabled us obtain some answers about children's motivation and experience in relation to handwashing with soap behaviour.

Ethnographic approach assisted me to discover and reach some useful conclusion that may guide agencies interested in designing programmes and messages for children in schools. These insights include location of toilets and handwashing facilities, type of handwashing facilities, number of handwashing facilities in relation to the children population and availability of soap and water. The study revealed that schools are and will continue providing a platform albeit with social dynamics that are critical. These dynamics should be examined and understood if one has to develop strategies for successful handwashing initiatives in schools. Observations revealed that a culture of handwashing to take root in schools, implementers of these initiatives must take time to understand what the children want. Structures to support and forge sustainability must be put in place. Both hardware and software must be considered hand in hand. The approach revealed the main motivators and obstacles to handwashing with soap interventions. Other important learning's generated by this approach and included the process of establishing an intervention in a school community. Social mobilisation as an approach to mobilize communities, FGDs and KII with stakeholders and the children complemented the ethnographic approach.

Measures that can be taken to mitigate against these challenges were identified. The potential of puppetry as a communication medium is either underrated or unknown and stakeholders and gatekeepers need to take time and understand its viability. Adopting a partnership

approach that will ensure mobilisation of resources within the community to support and sustain the initiative.

While programming of the puppetry initiative, the approach should assume an all-inclusive approach such as community mobilization. Implementation process should avoid a one-off activity approach and instead strive to engage children in participatory activities that will ensure their voice is heard. For any of the hygiene promotion activities to be sustained, there has to be a balance for both software and hardware and establish support structures to support the teachers as well as strengthen their capacity.

7.3.6 Sustainability of HWWS initiative in Schools

One of the greatest challenges in school based programmes is sustainability so that the benefits of HWWS in Schools continue beyond the support provided by the study/trial. In this PhD study, I have explored sustainability from three perspectives. The first perspective relates to social mobilization efforts that went in this study that created partnerships. The second perspective is from activities point of view; how the activities I initiated in the three schools can be sustained after the trials by the school management and the community; and the third perspective relates to sustaining the services that I and the partnership availed to ensure the HWWS initiative was implemented. One needs to ask the following questions to understand sustainability in this context:

- What is the status of the initiative? The study served as a catalyst for collaborative efforts to improve the ways in which children and families. In all the three schools, the school management has taken a keen interest in the initiative pledging the administration support to the activities beyond the trials period.
- What is the origin of the partnership? Is the partnership functional? Although the study trials did not attract all the partners that were initially identified as potential supporters of this PhD initiative, a number of those who got involved had a keen interest in the health of the children. African Child Media discussion with FPPS to support puppetry training in selected rural schools in Kenya. It is out of this interest that the partnership started evolving. However one of the major challenges the partnership face is lack of leadership.

In my absence no organization has been able to take up the role of mobilising others to support activities in the three schools or even take up new schools.

- How is the initiative positioned within the school/community? The study trials approach was aimed at promoting community ownership. The school management that includes Parents-Teachers association (PTA) bought into project and the approach - using puppetry to promote the HWWS initiative). All the stakeholders who participated at the school and community level understood from the start that the initiative was aimed at benefiting the lives of their children and therefore must be driven and owned by them.
- Who has taken the leadership role and what is their vision for the initiative? The teachers who took charge of the initiative have expressed a passion for puppetry, having been trained by FPPS. Once they had recognition and a catalyst to rejuvenate the clubs, they took up the leadership role with gusto. Taking up leadership of HWWS initiative was also reflected in the manner the school management supported the initiative through their pronouncements to the children and during FGDs. There has been lack of necessary support by a CSO or private sector organization to assist the schools.
- Is there a likelihood of continuation of puppetry and HWWS activities which includes providing water and soap beyond the trial period? Stakeholders and school management pledged to do all within their means to promote HWWS in the schools. In all the three schools, the puppeteers continue to perform and promote HWWS messages during selected days in the schools. The challenge two of the schools are facing is procurement of soap following the completion of the intervention. The school management in both school said they are exploring a number of ways to ensure they continuously avail soap and water to encourage ongoing handwashing at schools. Parents and all the other stakeholders said they understand and support this initiative.

A major institutional challenge faced in sustaining and scaling up the HWWS programme is the lack of coordination between various sectoral departments. Often the lack of inter-sectoral cooperation results in a lack of understanding on who will supervise and monitor the schools to ensure they have all that is required within a school to promote HWWS. Educational staff, including supervisors from the MoE (County and Zonal level), often lack interest and transport facilities needed to go for training or to monitor programmes in schools scattered

over a wide geographic area. Teachers are often underpaid, have a high workload, and within this context are supposed to teach, supervise and guide their students. These factors affect their interest in sustaining additional initiatives such as WASH in Schools.

7.4 Conclusions

In Chapter Seven, I have endeavoured to answer the study's central question as well as secondary questions. It is clear from the findings that there must be a number of conditions to facilitate HWWS in primary schools in Kenya. These conditions include physical structures such as infrastructure, hardware such as toilet and handwashing facilities, soap, etc. Other conditions to be addressed include organisational needs such as communications and cultural issues, implementation, participatory approach, social mobilisation to enable implementation and monitoring of the initiative.

The analysis following the puppetry intervention shows that out of all the children who washed their hands with soap at the observed critical junctures 49% were boys and 51% were girls. While the overall gender difference between the three schools together is minor, is interesting to note that there is a notable difference between the two sexes at particular schools. Our study did not set out to find the differences and dynamics between the two sexes and this revelation may warrant further research.

As was mentioned in Section 7.1, Toi Primary School has a total of 34 toilets with ten of them set aside for girls and 24 for boys. Premier Academy has three for girls and four for boys making a total of seven. Boonhouse also has mixed sex toilet block with five units and another block with six toilets for boys only making a total of 11 units for the whole school.

In Toi Primary more boys (49 %) than girls (2 %) were observed to have washed their hands with soap. However, a high number of the girls (33 %) washed their hands without soap; and 27 % of the girls and 12 % of the boys did not wash at all. In Premier Academy, a higher proportion – 70 % of the girls and 62 % of the boys – washed their hands with soap while 17% did not wash at all, respectively. In Boonhouse School, an even higher proportion – 79 % of the girls and 70 % of the boys – were observed to have washed their hands with soap.

These results however did not provide any indication that handwashing behaviour was influenced by the socio-economic status of the schools. There may be a number of reasons why rates of HWWS were higher at Boonhouse and Premier Schools than at Toi. At Premier School, the handwashing facilities were conveniently placed within the toilets while Boonhouse School placed extra water tanks and tippy taps outside the latrines unlike at Toi School where the facilities were located a distance from the toilet block. The behaviour of teachers in Premier and Boonhouse Schools may also have contributed to the higher rates. It is possible that the teachers in these two schools may have announced repeatedly and encourage the children to wash hands at critical junctures than in Toi Primary School. Crowding and state of the handwashing facilities during school break may have also contributed to the low rates at Toi Primary School. No firm conclusions can be drawn on what were the factors that led to the difference between the HWWS rates at the three schools following the puppetry performances. As my PhD study did not explore these factors, this question may be explore in further research to determine exactly what may have contributed to these differences.

Teachers, the school management and parents have a major role to play. It is however critical for stakeholders striving to implement initiatives in the school to ensure the role of children in approaches used is not ignored. An approach that engages and involves children is likely to succeed. The civil society and development partners involved in implementation should appreciate the role they are all playing and avoid appearing as if they are in competition. At the end of Chapter 7, I have also explored sustainability of the HWWS programme in schools; sustainability of puppetry approach and explored how partnership I midwifed for my PhD can be sustained for the benefit of the HWWS programme in schools. One year after the trials, feedback from the school community and other stakeholders indicates that this element is facing a myriad of challenges, such as procurement of soap, supply of water and maintaining the partnership.

Chapter 8

Policy Environment to Promote HWWS in Schools

"You can't educate a child who isn't healthy, and you can't keep children healthy who are not educated." Joycelyn Elders, MD, Former US Surgeon General

8.0 Introduction

This chapter looks at the policy issues that are pertinent to promoting handwashing with soap behaviour in schools and to some extent the community. Policy as spelt out in the National Environmental Sanitation and Hygiene Policy (Ministry of Health, 2007) is key in implementing initiatives aimed at hygiene promotion. Although the policy does not specifically outline implementation of these initiatives in schools, several sections of this document touch on what should be done to address sanitation and hygiene in learning institutions. Handwashing is rarely mentioned specifically in the policy, as the approach is holistic aimed at addressing various components of sanitation and hygiene. Of particular relevance is the aim that all schools, institutions and public places will have accessible, affordable, functional, hygienic and sustainable toilet and handwashing facilities and that the public will make full use of them.

Chapter 8 captures the roles and policies of the government in hygiene and sanitation. My PhD study revealed that teachers, parents and children are dynamic and important actors. Despite this, they cannot be expected to act alone to fill the void created by policy deficiencies. This Chapter therefore, probes the nature and potential impact of national government's policies, so that it becomes clearer how the activities of government and community stakeholders may potentially complement each other, allowing greater outcomes than if government or community stakeholders were to act alone or without knowledge of each other's activities. The participatory approach that I tested in my intervention with the

three schools and documented in my thesis findings can only succeed if the government and key stakeholders act to support the community initiative.

8.1 The Goal

In 2007, then Ministry of Health with assistance from WSP, WHO and UNICEF developed the National Environmental and Sanitation and Hygiene Policy (NESHP) to guide interventions by partners related to hygiene and sanitation. The policy document recognizes that hygiene and sanitation is a major issue not only in the community but in schools as indicated below:

By the year 2015, as a contribution to Kenya attaining the Millennium Development Goals, we aim to ensure that all households will be made aware of the importance of improved environmental sanitation and hygiene (ESH) practices for improved health; and that 90 percent of households will have access to a hygienic, affordable, and sustainable toilet facility, improved housing, food safety, usage of safe drinking water and the means to safely dispose of waste products. In particular, every school will have hygienic toilets and hand-washing facilities – separate for boys and girls. Attainment of these goals is expected to drastically reduce the incidence of sanitation-related diseases. (Ministry of Health 2007, 6)

Kenya's government recognizes the important role sanitation plays if the nation is to achieve the MDGs by the year 2015. Provision of water, a clean environment, dignified sanitation facilities, etc. are critical services. Dignified sanitation in developing countries refers to being able to provide facilities that will not lower dignity of the user by exposing them to dehumanizing situations. Defecating in the open or using deplorable facilities (dirty and hazardous) is considered to lower the dignity of the users. It is critical to note that the stakeholders are not only considering quantity but are also interested in quality and equity of these services to school children. These two have become important in measuring services being provided to citizens in developing countries. Stakeholders interviewed during FGDS and key informant interviews during my PhD study emphasised the role of policy in promoting HWWS behaviour in schools.

For more than four decades, development partners through the government and civil society organizations have tried to put up structures and conduct interventions in institutions and elsewhere in the community in their effort to meet people's needs. A major deficit has been maintenance and sustainability of these structures and approaches tried by these partners. This policy attempts to offer direction on the way forward. The goal of the policy is to ensure that "every school, institution, household, market and other public place will have access to, and make use of, hygienic, affordable, functional, and sustainable toilet and hand washing facilities" (Ministry of Health 2007, 8).

The policy recognizes the importance of investing in software as well as hardware. Over the years, there has been emphasis on construction of structures to improve sanitation. This has occurred across the country without similar investment in health promotion initiatives to match investments in hardware. The government as well as development partners laud this new focus on software, as is reflected in the policy: "Improving sanitation is not limited to physical-structural aspects but also includes the proper use and maintenance of facilities as well as behaviour change towards more hygienic practices" (Ministry of Health 2007, 8). Indeed, stakeholders interviewed supported this view. "There is recognition that despite limitations schools have regarding physical structures, information dissemination focusing on knowledge and behaviour change needs to be stepped up" (CSO official).

Kenya's government, together with donors in the health sector, have over the years tended to implement programmes at the community level for beneficiaries without necessarily involving them let alone attempting to encourage community members to contribute towards these programmes. As former National Handwashing Coordinator, I have seen this approach often being criticized as ineffective because community members do not show ownership of these initiatives and simply refer to them as "government's" or "donor's" programmes. The new policy tries to promote the communities' participation in conceptualizing, planning and budgetary support to the initiative. Contribution of resources toward such ventures does not have to be monetary but can come in any other form such as time while planning, labour, etc. The social mobilization approach used in my PhD study is therefore in line with the government's policy as stated in the policy document: "Furthermore it has been shown that, when members of a household have been motivated to invest their own resources in sanitation improvements, they are more likely to change to the kind of behaviour that will achieve lasting health benefits" (Ministry of Health 2007, 8).

8.2 Funding

As mentioned in Section 8.1 above, funding of hygiene promotion initiatives over the years has been a preserve of the government. As a senior programme manager who has worked in HWWS and similar programs, I have observed that the funds though managed by relevant line ministries has not necessarily come from the treasury (taxpayers) but channelled through the government as donor support. UNICEF, WHO, United States Agency for International Development, European Union, Department of Foreign and International Development (British government) and the World Bank have played a leading role. In the last few years, such funds have been dwindling and the government has found itself unable to support such programmes. This has been largely due to partners' reservations on the way their funds have been managed and accounted for. This problem is not unique to the areas of sanitation or hygiene. There has been much concern about a consistent deterioration in the levels of public accountability by various levels of government in Kenya, with widespread misuse of public money for purposes unrelated to their originally intended targets or misappropriation of funds for private gain (Gathii 2009, Odhiambo-Mbai 2003, Reinikka and Svensson, 2002).

Civil society organizations have been the beneficiary as development partners have preferred to channel implementation funds through the CSOs. Having realized that, the policy was therefore formulated in a manner aimed at tapping the resources by all the development partners through the working group by taking over the coordination of the Environmental and Sanitation Working Group (ESWG). All partners (including CSOs) seek the government's approval through the working group to implement any hygiene related projects. The agency is therefore obliged to report on the activities, geographical scope and coverage, budget, etc to ESWG. At the end of any reporting period, the government takes credit for supporting the initiatives and all funds spend are reflected in the ministries reports as having been managed by the ministry.

8.2.1 Government's Role

Although the government's allocation towards handwashing initiatives has been minimal, relevant ministries (especially the Ministry of Public Health and Sanitation), under whose docket hygiene promotion activities fall, have been under pressure to ensure that resources are allocated for these functions. Despite the budget allocation being minimal, the Ministry

of Public Health and Sanitation has contributed towards the national handwashing initiative by ensuring that it coordinates national activities between partners and line ministries. The Ministry has also ensured availability of staff to provide technical support and leadership to partners implementing these programmes. The statement in the policy document below sums up the role of the government through Ministry:

Promoting improved hygiene and sanitation throughout the country requires the cooperation of every level of government. Government will make annual allocations to all local and regional authorities earmarked for promotion and support of ESH activities. The Government will lay down guidelines and conditions on how these allocations shall be utilized. Local authorities shall be expected to maintain high standards of ESH services in their areas of jurisdiction. They will also be encouraged to allocate some of their own funds to ESH. Local government also receives conditional capital grants for the provision of infrastructure, including community-level ESH services. These conditional grants consist of the local government grant administered by the Ministry of Local Government, and the public health grant administered by the Ministry of Health. (Ministry of Health 2007, 23)

Development partners interviewed during my PhD study pointed out that although key ministries including MOPHS lack capacity and are short of human resources, most of them “have showed their interest in the initiatives by dedicating staff full time to work on the donor supported projects. This gesture therefore proves the importance the government attaches to WASH” (Development Partner Official).

As the Ministry plays a coordinating role, one of its major responsibilities is to mobilize resources from partners willing to support hygiene promotion initiatives from all sectors. The ideal situation envisaged in the policy, however, is not the reality on the ground. A government official interviewed during my study admitted that “budgetary constraints have been and will in the foreseeable future limit the implementation of the policy. Development partners are therefore urged to support the Division [of Environmental Health under MOPHS] to realise this dream for the sake of our children. Otherwise our good intentions will go to nought”. The Department thus requires more money from development partners to be able to effectively take up the responsibilities that are listed below.

The Ministry of Health, through the Division of Environmental Health, will take the lead role in this process. These resources will be used to cover core activities, including the work of a coordinating and advisory team, development, production, dissemination of promotional material, advocacy campaigns, training and capacity building, payment of field staff, and monitoring and evaluation; they will also cover limited subsidies. The resources will also cover activities such as research, standardization, preparation of guidelines and construction of demonstration units (Ministry of Health 2007, 23).

8.2.2 Development Partners

Key development partners working towards better hygiene and sanitation in Kenya include WHO, The World Bank, UNICEF, United States Agency for International Development (USAID), Japan International Cooperation Agency (JICA), German Development Agency (GTZ) United Kingdom's Department of Foreign and International Development (DFID), European Union (EU), Canadian Development Agency (CIDA), Swedish Development Agency (SIDA,) Embassy of Belgium, Netherlands and Norway just to name a few leading development partners in hygiene and sanitation sector. "Regarding donor support, the policy states that the Government will seek donor funding to supplement the implementation of the ESH policy. This support will need to be coordinated, aligned, and integrated with the Kenya Government's funding and support policies and managed in terms of national policies and strategies for the sector as a whole" (Ministry of Health 2007,24). In practice, the majority of these partners support the government directly through grants based on work plans developed jointly. Other partners implement some of the agreed-upon activities directly through programmes they support. Others subcontract CSOs and private sector agencies to implement programmes on their behalf. Ultimately, all these initiatives/activities are aimed at promoting hygiene practices in the community (schools included).

8.2.3 The Private Sector

In the last five years, I have seen the private sector develop a keen interest in sanitation and hygiene. Soap manufacturers and sanitary hardware manufacturers besides other private sector companies like banks, manufacturers of baby products, etc are at the forefront working

with the government and sometimes holding parallel activities to support hygiene promotion. Companies may have various reasons for this interest, including their:

- 1) corporate social responsibility (CSR) strategies,
- 2) marketing strategy to promoting their products, and
- 3) competition for visibility.

The Ministry of Health (2007, 24) has cultivated this increase in private sector activity:

Private sector partners will be encouraged to invest in ESH services on commercial principles; and in the introduction of affordable and modern technology that can easily be replicated by communities. This may be done through local authorities where it is possible to enforce the user pays principle. The private sector can also put up facilities in public institutions and enter into contracts with these institutions on investment recovery arrangements. Private sector partners will be encouraged to invest in garbage collection trucks and exhauster equipment, as well as being invited to bid for service contracts. To support household-driven improvement of sanitation services, Government will facilitate the establishment of private sanitation service outlets throughout the country at each administrative location. Micro-finance institutions will be encouraged to provide suitable finance. Special attention will be given to ways of ensuring that landlords and developers of properties invest in and construct suitable sanitation services for tenants and home-buyers.

I was privileged to oversee the advocacy efforts targeting the private sector as the National Handwashing Initiative coordinator when the Government of Kenya launched the handwashing with soap initiative in 2007, and major soap companies expressed interest in supporting school based activities. Unfortunately the soap manufacturers wanted to have the campaigns branded with their soap name or logo. The partnership between the government, the private sector and the civil society that had evolved in the years prior to 2007 under the globally established Public Private Partnership for Handwashing with Soap (PPPHWS) had anticipated this demand, as it had already experienced the same demands in Asia and South America where multinationals hoped to promote their soap brands during national handwashing initiatives. PPPHWS had set guidelines and urged governments forming partnerships to adhere to these guidelines to ensure they provide level playing field for all

stakeholders and partners. As Kenya's National Handwashing Coordinator, I observed that this worked well for the PPPHWS. These guidelines, in conjunction with the national Global Handwashing Day events that have been conducted since 2008, have created a harmonious working relationship among would have been competitors in the soap companies.

Engaging the private sector in national programmes is complex. The programme implementers have to devise a mechanism and rules of engagement to ensure the initiative benefits for the partnership. The World Bank has published guidelines to assist programme initiators. The guidelines emphasize that "if a handwashing program is to succeed, advocates will have to sell the idea to stakeholders, including government, industry, and potential funders. A SWOT (strengths, weaknesses, opportunities, and threats) analysis can determine which factors need to be addressed when engaging these stakeholders" (World Bank 2007, 15).

The guide suggests that the public sector as well as the private sector may be suspicious of each other's intention in the partnership:

Because both the public and private sectors have an interest in promoting handwashing, country programs usually take the form of a public-private partnership (PPP). While the public sector can be wary of working with industry and the private sector skeptical that working with government would produce significant results, both sectors stand to gain from cooperation... industry typically invests a significant portion of its energies into understanding the consumer in order to make and promote appropriate products. Hygiene promotion programs generally lack this expertise, which is not widely available in the public sector... the public sector gains from the marketing expertise and resources of industry (World Bank 2007,14).

This is a critical point to be made to both partners but requires the role of a third party (such as a development partner who may initially play the role of a mediator to explain to the government and the industry the benefits of partnership. The World Bank suggests that this is a win-win situation for both sectors but sums up by stating that "though industry likes to be a good citizen, what drives country-level activities is profit. Industries invest time, expertise, and resources where they see a potential profit. It is therefore vital to make estimates of

potential growth in the whole soap market” (2007, 17). My PhD study enjoyed the support of the private sector through soap donations from companies such as PZ Cussons. This is an indication that the private sector is willing to support activities in schools and communities as part of their social corporate responsibility.

8.2.4 Civil Society Organizations

The 2007 Policy defines the government’s vision of the role of Kenya’s civil society organizations by stating: “NGOs will be encouraged to participate either as agents for others, or as partners carrying out activities for which they are well suited” (Ministry of Health 2007, 24). Indeed the role of CSO cannot be ignored. As was stated above, a large portion of donors’ money for hygiene promotion is channelled through this sector. The CSOs are less bureaucratic, have capacity to implement to scale and are amenable to innovative approaches. NGOs and CBOs will therefore continue to play a leading role in hygiene promotion. Thus Kenya’s CSOs are encouraged by the government to assist in community mobilization, education, and training in improved ESH methods. While coordinating advocacy efforts as the National Handwashing Initiative Coordinator, I saw the private sector play a role in constructing demonstration or piloting hygiene services in selected areas as part of a national plan to progressively develop support programmes throughout the country.

During my PhD study, I approached and encouraged NGOs and CBOs to get involved and participate. Since my study was viewed as a pilot, most NGOs may have viewed it as insignificant initially. But after the puppetry workshops and public performances by the children, I noticed increased interest from some of them. During a group discussion in Toi Primary, one member of a FGD summed when she said: “Stakeholders have been asking me who is behind these activities....and why it is only in one school. They want more schools and children to be involved and don’t mind financing it” (teacher and member of FGD). This was one of a number of indications that stakeholders who watched the puppet shows saw the potential and may be keen to work with other schools to replicate this initiative.

8.3 Conclusion

The Government of Kenya is making efforts to engage all stakeholders in addressing HWWS needs in the country. A multi-disciplinary team, with representation from all stakeholders, was set up via the NEHSP to gather information, develop approaches, guidelines, and standards for addressing hygiene promotion needs of rural and urban communities. The Task Force operates under the Interministerial Coordinating Committee (ICC) engages all stakeholders at all levels. It is the responsibility of the stakeholders to make suitable arrangements for WASH sector promotion within their areas of jurisdiction.

The policy environment to promote WASH sector in Kenya is well developed. MOH spells out goals and objectives that are meant to guide implementation of various activities to promote hygiene and more specifically handwashing with soap.

From my experience as the National handwashing Initiative Coordinator, I noticed that a major bottleneck, however, is lack of capacity in the relevant government ministries to implement this policy. Budgetary constraints have hampered the Kenya government efforts ability to hire and train staff at national and county levels. The government is therefore exploring alternative methods of ensuring that the policy is implemented for the benefit of the WASH sector. Development partners, civil society and the private sector have been mobilised to support this effort. This effort appears to be succeeding at the national level but this support need to trickle down to the counties and districts where there is greater need.

Chapter 8 has explored the policy environment that supports handwashing with soap activities in schools. Discussions with stakeholders during interviews had identified policy as a critical area to support implementation of handwashing initiatives. It is clear that policy document exist but resources to enable its' implementation is what is required. The resource mobilisation cannot be left to one player but requires concerted efforts of all the players (government, development partners, civil society and the private sector).

As discussed in Section 7.2.7, policy is a critical area to support the school handwashing initiatives. Matters related to capacity building, curriculum development, rules of engaging with the public sector demand high level advocacy to influence government policy. Chapter 8 therefore emphasizes the importance of policy environment.

Chapter 9

Conclusion

9.1 Introduction

Positive hygiene behaviours are some of the habits that can be promoted in the school environment, as we already mentioned in Chapter 6.2.2. The premise was presented that if school children make handwashing a habit, they can act as change agents for handwashing at family and community levels.

Addressing hygiene in schools requires a thorough understanding of the influences on school children. The first section of this chapter thus presents the dynamics of interactions in and out of the classroom, tries to understand what appeals to children and looks for a deeper understanding of what motivates their behaviour. Section 9.2.1 looks at the facilitators and motivators as identified by children and stakeholders during this study while 9.2.2 looks at generally what motivates the child as identified through other studies. My experiences working as the National Handwashing Coordinator with the World Bank and through other initiatives I have been involved in also contributes to this section. Section 9.3.1 will explore barriers identified by children and stakeholders while 9.3.2 will look at some of the barriers identified through other studies and initiatives that I have been involved in. It uses data collected during FGDs and key informant interviews (KII's) to explore these issues.

The latter part of Chapter Nine explores the relevance and implications of theories about Diffusion of Innovation, Social and Community Mobilization to initiatives to promote and sustain HWWS and other hygiene practices. As with the earlier sections of the chapter, the information is from the children themselves as well as stakeholder who include teachers, parents and other interested parties drawn from public and private sectors, civil society as well as the local community.

9.2 Why do children wash hands?

What motivates Kenyan children to wash their hands with soap? What is it that poses the greatest challenges to children once they actually want to wash hand with soap at critical junctures? My thesis has explored many factors related to policy, lack or inadequate facilities and approaches. I conclude that it is not only availability of soap and water in schools that will make children wash hands. Water and soap are the pre-requisites and their availability is a must; but much more need to be done if HWWS has to become a habit among children in schools. Stakeholders involved in HWWS initiatives have to consider the factors discussed earlier and summarised in subsequent sections in Chapter 9.

9.2.1 Facilitators, Motivators and Barriers to HWWS

This study has identified the following as important facilitators and motivators to handwashing with soap among children in school, as well as barriers, which include:

a. Teachers

The stakeholders who were interviewed notably emphasized the role of the teaching staff within the institutions as role models with strong influences on children's behaviours as well as facilitators who create enabling environments for children. "Active participation by teachers in the campaign is critical to adoption and sustainability of the behaviour in schools cannot be overemphasized," one government official said. All stakeholders interviewed stressed the need to actively engage teachers as partners together with the children. They cited cases where either teachers or students have been actively engaged without the support of the other party. This has led to the total failure or less effective interventions. As one CSO official noted, "The reluctance of teachers to support health clubs in school has reduced the effectiveness of such clubs in promoting hygiene."

While in school, children spend most of their time under the instruction of teachers. The system of education in Kenya is that every class has a class teacher who is responsible for both the education and social welfare of the children. The children may interact with other teachers (who teach other subjects) but the home class teacher is a dominant character in their school lives. One 13-year-old girl explained: "The class teacher is a major influence in my life...both academically and socially. As a girl, I get a lot of guidance on many issues from

my class teacher. If the class teacher is a man, I am forced to seek a former class teacher from my former class... a woman... who is able to take a mentors role and guide me on matters that are girl specific” (Class Eight girl). This emphasized the important role and position teachers hold within the school and in the community. Children continue to rely on them to intervene on many issues even at home and the parents respect that position.

b. Recognition in schools and community

When children were asked what motivates them to wash hands with soap, they suggested that being recognized within the school and thereafter in the community as a champion is a motivator. One 11-year-old boy said that “within the [health] club, we have a system to recognize clean pupils...they are called champions...every child wants to be a champion” (Class six boy). This statement reiterates a point stated in Chapter 8. For any positive action, those involved value recognition. The positive feeling that results reinforces the positive action in the individual. Other members of the community are likely to consider doing the same. The light-hearted competition and recognition driven by hygiene champions in the health club thus promotes handwashing with soap behaviour among club members, and extends beyond the club when others see these activities and their rewards.

c. Convenient location of facilities

Convenient access to soap and water came out strongly as a facilitator in the school. The findings of this PhD confirm World Bank (2009, 52) studies that appropriate location of handwashing facilities can support HWWS behaviour. The facilities are either very far from the toilets or located in the opposite direction (World Bank 2009, 52). As discussed in Chapter 6, children easily forget to wash hands after the using the toilet or find it inconvenient to walk to the handwashing facilities if they are not located nearby. A ten-year-old boy in the FGDs said: “I remember to wash my hands with soap when it is (soap and water) near the toilet...but if it is placed far away, I am likely to forget when I leave the toilet” (Class 6 pupil). Another respondent noted: “Children get distracted easily...when they leave the toilet. If the basin is not near the toilet, they are likely to get into play and forget that they are supposed to wash hands. But if the basin and soap is right outside the toilet, chances are they will remember” (Teacher and Health Club Patron).

In one of the schools, I observed that children rushed to the toilet and rushed out towards the kiosk to purchase snacks but in the process, passed the handwashing facility located midway

between the classes and the kiosk without washing hands. As Chapter 7 indicates, the problem becomes worse when the handwashing facilities are in the opposite direction between toilet block and kiosk. In another toilet block at the same school, where the handwashing facility was right outside the building, the majority of the pupils lined up to wash hands before running to the kiosk. This is a clear pointer that the convenient location facilitated HWWS among the children.

d. Condition and type of facilities

Another motivating factor I observed was the condition and type of the handwashing facility. Fewer children were observed to wash hands at a facility that was tidy with better drainage but avoided taps that spilled water and soiled their uniforms. In one of the schools where we had set up leaky tins, the children seemed excited about the innovation during the first day. I observed though that fewer children used the leaky tins especially after day one of observations. Spot checks revealed that the area around the leaky tins became murky as there was no proper drainage in place. This likely discouraged those who did not want to step in the muddy and slippery spot. Bars of soaps fall into the muddy water or disappear in the trough. Children expressed their displeasure if the facilities are not maintained well.

One of the head teachers I interviewed added a further perspective by saying: “If you want to encourage the handwashing behaviour, you must ensure you get the right handwashing facilities, soap and water. Let us ensure the children are well taken care of...this will ensure they feel encouraged to use them...girls especially like clean and well-constructed facilities that don’t make them dirty”. I observed that girls were very sensitive to using dirty and clogged facilities. They would leave the toilet, look at the facility and either just walk away or rinse one hand and go. The head teacher added: “Girls will always avoid using the toilet when they are not comfortable and even feel unsafe...in cases where some cubicles don’t have lockable doors...they may opt to miss school even if they are menstruating and cannot use school toilets...this has greatly contributed to absenteeism hence poor performance”. This may have contributed to the gender differences in HWWS noted in Section 7.1. It endorses the observations of sources such as UNICEF, Nahir and Ahmed, and others regarding the importance of clean, tidy, well-constructed facilities (see Chapter 6).

Handwashing facilities in most schools are too high to reach, especially for children in the lower primary classes. The solution to this problem is hinged on a number of issues – number

of facilities, type of facilities and their maintenance. Addressing these three issues will minimize the barriers that children encounter in their effort to wash hands (World Bank 2009, 52). In addition, limited handwashing facilities lead to pushing around the facilities. Younger children find it even harder than usual to reach the handwashing facilities and may even be bullied and push by older children when they line-up to wash their hands. The authorities must consider the ratio of pupils per toilet in the schools as well as the number of handwashing facilities that go with the toilets (World Bank 2009, 52).

e. Number of HW facilities

The number of toilets and hand washing facilities are critical in facilitation handwashing habits among the children, particularly given the short time period available for meal breaks. The fewer the stations, the fewer numbers of children one would expect to wash their hands. In a school where children had adequate facilities such as Premier Academy, we noted high and consistent practice of the handwashing behaviour. The adequacy of facilities contrasted with Boonhouse and Toi Primary schools where using the toilet and handwashing facilities seemed to be an arduous task as the demand was higher at the allocated time. One 13-year-old said: “I don’t like visiting the toilet during break as other children are lining up and waiting for their turn...I feel rushed” (Class Eight girl).

In Boonhouse School however, the results on HWWS were encouraging despite the school having the worst ratio of toilets and handwashing facilities per student. The school had fewer facilities and yet reported the highest HWWS rates during observation. This study cannot conclusively discuss what may have contributed to this situation. I however noted that the school management was very enthusiastic about my PhD study and members of the school PTA were very supportive. I observed that children who watched the puppet show rushed to wash hands with soap immediately they got the message. On realization that the facilities were not sufficient, teachers supervised the children who queued up to wash hands. This may have contributed to the high HWWS rates in Boonhouse.

The number of taps or basins is critical. But this study has found that it is also important to consider availability of soap. “It is not fair to provide one small bar of soap to go around 20 or more children...the younger ones especially find this very demanding and either give up after waiting for long or simply avoid going to the facility altogether...the soap must also be kept well. I saw children avoid using soap that is soggy and dirty” (CSO official). The issue

is not one simply of affordability of soap but how to effectively keep and use the available soap (World Bank 2009, 51-52). Stakeholders in the three schools that participated in the puppetry initiative raised this as the greatest challenge the initiative faced. They struggled to find what type of soap is effective in school situation and how to minimize wastage and theft to ensure the soap purchased remains at the handwashing facilities.

f. Availability and amount of water at site

A perennial water shortage is a problem that many institutions in Kenya face. The three schools involved my study are not an exception. Luckily, during the period of observation, there was running water in the taps throughout. Children said they sometimes do not bother to washing hands at critical times because the taps often run dry. For example, one 10-year-old boy stated that “there is no need of going to the tap when you leave the toilet...as it is of no use anyway as there is usually no water” (Class Five boy).

A shortage or complete absence of water for handwashing discourages children from sustaining the habit once they begin the practice. If there is any interruption due to lack of or inadequate facilities, it becomes difficult for the children to remember once supplies return. “Any effort to help an individual leave alone children must be given attention and full support by all those involved. Once they notice any shortcoming or find the behaviour laborious...they get discouraged and drop the new behaviour...it becomes very difficult to convince them to try it again”(Development partner official).

g. Role Models

Children involved in health club activities feel they occupy a special position within the school as well as in the community. The role they play as champions puts demands on them because as individuals, they must live and show good example to their peers and the younger children. One 14-year-old explained that “once you become a member of the health club, the school expects you to practice what you preach...you cannot afford to be seen doing the wrong things by your classmates and other children...you must set good example” (Class Eight girl).

This suggests that recognition and reward system adopted by the clubs in schools comes with a price, but one that creates further stimulus. One government official noted that: “The majority of the boys and girls in these clubs are always called upon during school functions and even weekly parades to talk to their peers...they cannot do that if they are not clean and

tidy. They know they are being watched all the time and must exercise care and good behaviour. No child in the club would like to be picked up on parade for a wrong reason. This has made them role models” (Government official). This price may be heavy for some of the children but majority find the task(s) that go with the club activities an honour. Teachers and students interviewed said that this role played by children has served as a major motivator and more and more children are striving to observe and sustain hygiene behaviours including handwashing for them to be recognized.

h. Change Agents

In the past three years, WASH activities in Kenya have become one of the most talked about health activities among government officials, CSOs, the school community and the private sector especially soap manufacturers. “In schools, hygiene and sanitation has gained more prominence than HIV did...depending on the approach, it is become almost a social movement... some sort of activism that most of us want to be associated with” (CSO official). Recognising the role children can play in this effort has an important multiplier effect on their personal behaviours. It encourages their functioning as change agents (discussed in Section 8.2) and allows them to see themselves as stakeholders who belong to a social movement. For example, one 14-year-old said: “I feel happy and honoured when I am called upon to demonstrate the right way of handwashing during school assembly...it is even better when I do that out of my school for other children at home or in neighbouring schools. This makes me realize how important I am” (Class Eight girl).

9.2.2 Other Research on What Motivates the Kenyan Child

During the past five years, handwashing has become a popular subject in Kenya. Nearly all sectors (public, private, civil society and development partners) are involved in activities promoting handwashing with soap. This section explores and summarises some of the motivators that my study did not capture but have been uncovered by other studies. As was discussed earlier in the thesis, I have not conceived of puppetry as a sole medium for promoting HWWS, so it is important to consider factors that influence both the success of puppetry and complimentary means of building and sustaining rates of hand washing.

Interviews with children reveal that they do not consider health as a motivator to wash hands (World Bank 2009; Karama 2011). The children recognize the fact that handwashing like

other hygiene practices reduces the incidences of disease infection and when practiced, one is likely to stay healthy. Awareness on the benefits of handwashing with soap is very high among children. In a study supported by Unilever in Nairobi schools, 87% of the children were able to cite the critical times when they should wash hands with soap (Karama 2011 22), but they did not necessarily wash their hands then. Similar trends have been noted in Senegal (Sidibe and Curtis 2007, 6).

When children were asked what would motivate them to wash hands, the following were discussed:

a. Celebrities as role models

Engaging known personalities in social development causes is a not new concept. Miller in her study of American celebrities and their influence as role models argue that “within today’s crop of high profile celebrities are a select group who supercede traditional notions of celebrity. These “larger than life” individuals whose status extends through multi-media empires are not simply entertainers but tastemakers. Instead of contributing to culture through mere artistic expression, these celebrities are defined by their power and influence in the public sphere” (Miller 2004, 8).

Brody in an article published by Ogilvy Public Relations is concerned that celebrity endorsements and especially those supporting health causes are now being frowned upon by the media. This may be so because of the nature of contracts the celebrities get into with the firms. When celebrities are paid for this kind of initiatives, it erodes the public confidence that may exist in the endorsement. Brody however adds that despite the media downplaying the role of celebrities, they still have a role to play in health campaigns. He adds:

Celebrity health campaigns still have value. They work for our clients, for our third-party partners, for the medical profession and for the general public. They educate. They leverage marquee value for a greater social good. They get results hardcore, verifiable, quantifiable results. Interviews are conducted, media impressions generated, and key messages delivered (Brody 2012, 1).

However none of the celebrities have been approached in Kenya to support handwashing initiative. In order to create a wider awareness through the charm and following of luminaries

it is suggested that a few renowned luminaries especially entertainers – should be engaged to help promote the cause at different levels. Children want to do what their role models do. If a person they consider a celebrity washes hands, they are likely to do the same (MOPHS 2009, 8). Celebrities include musicians, actors, comedians, politicians etc. be they international, national or regional.

Based on this finding, campaigns to promote handwashing with soap in Kenya have engaged local celebrities. Musicians and actors top the list of the celebrities using social marketing approaches to promote handwashing behaviour.

b. Peers

Sidibe and Curtis find that conformity with the behaviours of other school children is a big motivation for change within children's groups. The experience in other countries has shown that when everyone else is seen to be washing their hands at the specified times, no child wants to be left out, and this trend is particularly evident if a class has its own facilities that students take responsibility for looking after (Sidibe and Curtis 2007, 6). The role of peers was emphasized in Chapter 7.

c. Status and fitting In

Below are some quotations from children interviewed during the baseline study in 2007. The quotations indicate a sense of pride and satisfaction children have when they embrace cleanliness and hygienic practices. They are noticed, respected and rewarded. This is a way sums up the key motivators. If being noticed by others gives them a sense of pride and enables others to respect them and sometimes leads to reward, then this is the key motivator.

Box 9.1: Quotes from children in different parts of Kenya

- “I would be ashamed if people said I am dirty. Clean people are admired and respected in the community.” (Kisumu district)
- “You should be clean always... when you are clean you will appeal to everyone but when you are dirty people will avoid you.” (Machakos district)
- “The story I have is about a certain time we had gone to church. My church is Salvation Army, and we all dress in white. We had visitors in the church, we sang in the choir, the visitors we had were politicians. There was one lady whose dress was discoloured, the politician stood up and said that all those whose dresses were sparkling white [should] come and receive some money... the woman with the discoloured dress was left with nowhere to fit. It left me feeling that when you are clean you will get respect and you will appeal to people, but when you are dirty, you will just feel odd.” (Bungoma district)

Source: World Bank 2009, 47

Evidence for the World Bank study and my PhD study agree on a number of issues. The children value recognition that comes with being clean and look forward to being identified in school and their community as role models. One driver of the HWWS habit among children that comes out in both studies is the children’s desire to fit in. The children will do what they think enables them to be viewed positively by their peers and the society at large. HWWS and general cleanliness is one of them.

9.2.3 Puppetry in Schools

This PhD study was lauded by stakeholders who had an opportunity to watch the performances and interact with all children who either watched the shows or participated in the puppetry workshops. Apart from the ability of puppetry to address HWWS, it can be used to address any other WASH, environment, health in general and other social issues. All the stakeholders agreed that it is a good approach and once institutionalized, can effectively be used to support many initiatives in schools (see statements by stakeholders in sections 7.2 and 7.3).

During this study, both the strengths and limitations of puppetry in schools as a means for championing HWWS were noted. Section 5.3 noted that the general strengths of puppetry in schools is entertaining and promotes understanding of subject being discussed; develops children’s reasoning skills; makes them question their deeds and actions; they are able to find

their own solutions to problems affecting them and their own solutions are more likely to stick and translate into behavioural change than ‘imposed’ ones. This thesis also found further benefits of puppetry include:

- The approach promoted participation and interaction between the school community members in defining HWWS issues/problems. The community was able to discuss and come up with possible solutions to the problems affecting them.
- Puppetry was described by stakeholders as an innovative approach that promoted learning in a fun way. All those involved enjoyed the edutainment approach (see Section 3.7) and provided them with a satirical opportunity to laugh but take time to reflect on issues affecting HWWS initiative in their community.
- While using puppets, the children felt secure to discuss and point out issues that they would normally not talk about. For example, some of the scripts directly apportioned blame to the school management or the government. In normal situations, children may face constraints in discussing that type of topic openly, especially in front of the same people they hold responsible for the problem they are facing.

As discussed in Sections 3.6 and 3.7 on EE, the importance of channels or approaches used to deliver information cannot be over emphasized. While exploring the strengths and weaknesses of puppetry as outlined in this section, it is noteworthy to highlight puppetry as an approach that subscribe to the tenets of EE. Despite the limitation outlined below, it came out clearly during FGD sessions with stakeholders that puppetry has immense potential as an approach that harnesses the potential of children, enabling them not only to voice their wants and needs but giving them an opportunity to learn artistic skills.

Limitations to the puppetry approach noted in the process of this study include:

- Initial capital investment in construction materials for puppets and related performance kits. This may be a cost that majority of schools may not be able to meet unless they get support from other sources such as parents contributing, the government, private sector and CSO’s just to mention a few.
- Building capacity of teachers to run the clubs require resources that must be planned for. Construction and manipulation of puppets is a skill that requires training. Unless those people with the skills, such as FPPS trainers or other community puppeteers, offer their services, the majority of the school teacher may not be able to learn these skills.

- The process of scripting, construction of puppets, rehearsals etc. is time consuming and requires dedication by club members and their patron. With competing activities in school, this may be a major challenge unless school management allocates a number of hours of extra curriculum time for “puppetry club activities”.

Overall, the pilot study was well received by stakeholders. Success of the initiative was largely attributed to the social mobilization process used to lobby and create partnership among different stakeholders. I propose that future puppetry initiatives borrow and improve on this model as further illustrated in section 9.4.1.

9.3 Diffusion of Innovation theory

Section 3.4 and 3.5 describes Diffusion of Innovation theory as it relates to HW behaviour and social change respectively. In Section 3.5, I singled out DOI as theory that has dominated health promotion and communication over the decades, with the approach being strongly shaped by Everett Rogers’ model for explaining diffusion of innovation (1995, xv). I stated that top-down health education models are being replaced with more participatory approaches and communicators are using more rigorous methodologies to develop their strategies (Rogers, 1995). Section 9.4 uses the results of interviews with stakeholders and observations conducted at the three participating schools to analyse the implications of DOI theory for attempts to instil a HWWS culture via school-based activities among Kenyan children. The following four key themes emerged from the findings:

i. Holistic and Thematic approach

Teachers and parents who were interviewed expressed concern with the ways that previous activities aimed at promoting positive hygiene practices were introduced into schools, implemented and concluded. Projects conducted by other agents prior to my PhD appear to have aimed at raising awareness on hygiene and sanitation among the children and staff in the schools. However, behaviour change had not been cemented. Stakeholders suggested that a holistic and thematic approach be used to address handwashing, safe drinking water and sanitation. They felt that addressing the three thematic areas together is more useful as it is a combination of the three habits that will reduce diarrhoeal diseases and promote health among the children for the benefit of the community at large.

Teachers and parents I interviewed argued that addressing handwashing with soap alone and not addressing the other two problems will be solving only a third of the problem as they all affect the well-being of the child. It was beyond the scope of this PhD to attempt to address all three issues. For this to be done effectively, a partnership approach is necessary as it may be beyond the ability of one partner to address the three areas. The implication of this finding to future initiatives is that the approach will be able to attract more partners involved in implementing the three thematic areas to support a joint puppetry workshop. This concept is explored further in Section 9.4.1 below.

ii. **Repetition and Messages**

All stakeholders provided arguments or examples to show that activities in hygiene promotion in schools by civil society organizations have had major shortcomings. The one-off events organized for pupils serve only to pass messages but hardly translate into action by the children. For future initiatives to succeed, serious considerations need to be made regarding the mode and frequency of delivery of these messages. One stakeholder said: “Behaviour change is a process and to expect any meaningful change to take place, messages to the children must be delivered to them repeatedly to remind them of what is the expected behaviour before we expect them to begin adopting any long-term positive change” (CSO official in FGD). This implies that puppetry cannot be seen as a one-and-done activity for students, and if it is used as a strategy, there needs to be ongoing engagement of students in puppetry or complementary activities to promote and entrench HWWS.

Stakeholders also pointed out the challenge occasioned by different players disseminating different or even sometimes contradictory messages. They cited examples, such as “branded campaigns by soap companies that manipulate messages to promote their soap brands” as one such approach that has confused the children raising questions whether some brands are superior to others. Stakeholders emphasized that messages should be clear, concise and accurate. Those stakeholders who were familiar with the puppetry workshop process endorsed this approach, and said it was commendable as children themselves with minimal guidance were able to design and frame the messages in a manner the children themselves understood and appreciated.

iii. **Reward systems**

People like to be appreciated. When good deeds are recognized, complimented or rewarded, this encourages compliance. The reward ceremonies may be organized at the school, community or regional level to reward both students and teachers who have excelled in promoting handwashing initiatives. As has been noted previously, student ‘Champions’ as they prefer to be called can become role models to others and in this way encourage change in individual and group behaviour. Stakeholders made various suggestions on what they perceive as rewards. These include special badges, medals, certificates, T-shirts, caps, bags and any other accessories inscribed with messages that recognize their efforts. Institutions can also be recognized for their effort in initiating and managing similar activities or coming up with innovations that promote hygiene, sanitation and safe water.

Before establishing a HWWS initiative in school, it is important that the partnership explores possible effective reward options. During my pilot study, we informed the children that this was a voluntary initiative and they should not expect any rewards. However at the end of the study, we gave the workshop participants some bars of soap to take home, a gesture that was appreciated.

iv. **Group accountability - numbers matter!**

Stakeholders put forward a strong case for ‘strength in numbers’, or that community or group effort is better than individual effort. They argued that change may begin with an individual who may influence others to take action; greater change comes when a group of people adopt a new idea and push for its adoption. Similarly, a group that stands together comes out stronger than a lone voice agitating for change. This philosophy resonates with the Kenyan spirit of *‘Harambee’* (Let us pull together).

It was suggested that for HWWS initiatives to succeed and be sustainable, there must be a group or team of key stakeholders within individual schools, or across society who are responsible and accountable for the initiative. This proposal is in line with the social mobilisation approach I applied during the pilot of this project (discussed further in section 9.4.3). The important point is that if the responsibility of such an initiative rests on one person or few individuals, it is unlikely to succeed.

For the purpose of this study, I define an innovation as an idea or behaviour that is perceived as new by its audience. DOI offers three valuable insights into the process of social change. The first insight looks at what qualities make an innovation spread successfully. The second insight examines the importance of peer-to-peer conversations and peer- networks in a community. The third insight seeks to understand the needs of different user segments in the community. Earlier in the thesis, I raised several fundamental questions which are answered below:

- Is it possible therefore in my case to achieve this innovation through children in the participating schools and clubs?
- Can the early adopters of HWWS behaviour among the children I initially work with help influence the rest of the school children?
- What sort of qualities or characteristics do need to identify among the children I will work with to get ‘the best’ (credible, trustworthy, knowledgeable, etc) children who will help me achieve my thesis goal?

9.4. Champions of Change! Health Clubs as Change Vehicles!

Health clubs were used in this PhD as ideal vehicles of championing discussions about HWWS leading to children washing hands after visit the toilets and before eating food. In the clubs, during the puppetry workshops, children got an opportunity to express themselves, idealize, innovate and chart their communication path based on their beliefs and aspirations. The puppetry workshop process presented them with an opportunity to overhaul and invigorate the health club activities. Children and teachers alike in Section 6.3.1 expressed their desires regarding Health Club activities. Children saw clubs as an avenue through which they could use as their outlet to learn, articulate their feelings out of the pre-set inflexible class environment, and question and scrutinise issues they do not understand.

In FGDs, children said that some of the reasons they appreciated the clubs were:

- Children are able to learn – Children appreciate any new information but they prefer to learn in a fun situation. Children learn and retain what they are taught if they see and participate in activities that reinforce messages, such as the songs and poems that are popular in playgroups. The puppetry workshops presented such an opportunity. The

children involved in the workshops not only said they were learning but had an opportunity to contribute their ideas, thoughts, their wants and needs in the process.

- Children as role models – the structure of the clubs within the school environment helps to place them in a position of scrutiny. Depending on the club activities, club members often find themselves in elevated and privileged positions within the school community. As was discussed in Section 9.2.2, members therefore feel an obligation to behave as role models in matters that are prescribed in the club rules.
- Children are fast learners. Compared to adults, children can more easily change their behaviour or develop new long-term behaviours as a result of increased knowledge and facilitated practices. Children and youth may question existing practices in their households, and by demonstrating good hygiene, they become agents of change within their families and communities (UNICEF, 2010, 14).

From the observation and discussions with both teachers and pupils, it emerged clearly that if children who are chosen as role models are selected through a democratic process, and other children view them as credible and trustworthy, they are likely to play a role in shaping behaviour of other children.

- Children influence others – peer culture
A core issue in Diffusion of Innovation theory is the role of the early adopters and change agents. In the community, change agents potentially include the opinion leaders, gatekeepers, health workers, social workers, teachers, political leaders. In schools, change agents may include management, teachers and pupils. Children who participated in the puppetry workshops and FGDs pointed out the influence of peer culture among children. One girl said that “there are those boys and girls most of us look up to because they perform well in class or they excel in sports. Once such pupils are selected to lead in any activity, they are seen as credible leaders and majority of other children are likely to follow them”. This statement implies that pupils in school respect those they see as leaders (fellow pupils) and are more likely to easily influence fellow pupils’ habits.

The capacity of school children to be change agents has been demonstrated in a case study, published by a consortium of partners (Joint Call to Action for WASH in Schools,

2010), which shows that school-led initiatives cannot just very effective in their own right – they can trickle down in the community. For example, in Nepal, a School-Led Total Sanitation (SLTS) which mirrors the Community-Led Total Sanitation (CLTS), a community based approach to eliminating open defecation, capitalizes on the crucial role that children can play as promoters of sanitation and hygiene in their communities (UNICEF 2007, 26). A programme implemented in 2005 by the Government of Nepal and UNICEF draws on a wide range of successful Community Approaches to Total Sanitation (CATS). The Nepalese initiative created a complete package of sanitation and hygiene programming that begins at the school and extends throughout the community. Children in this initiative are central in catalysing improved sanitation in schools, homes and communities. Through participatory approaches, motivational tools, flexibility for innovation and building ownership at the local level, SLTS is accelerating latrine coverage across Nepal – and creating a social movement for communities to become free of open defecation (UNICEF 2007, 26). Thus it becomes evident that because children are agents of change, education for good hygiene practices in schools links students, families and communities (UNICEF 2010).

This PhD reinforces the importance and role of children as early adopters and agents of change. Further research is needed, however, to trace the relationship between change agents within schools, and whether and how puppetry interventions – such as the one conducted for this thesis – leads to change outside schools.

9.4.1 Support mechanisms

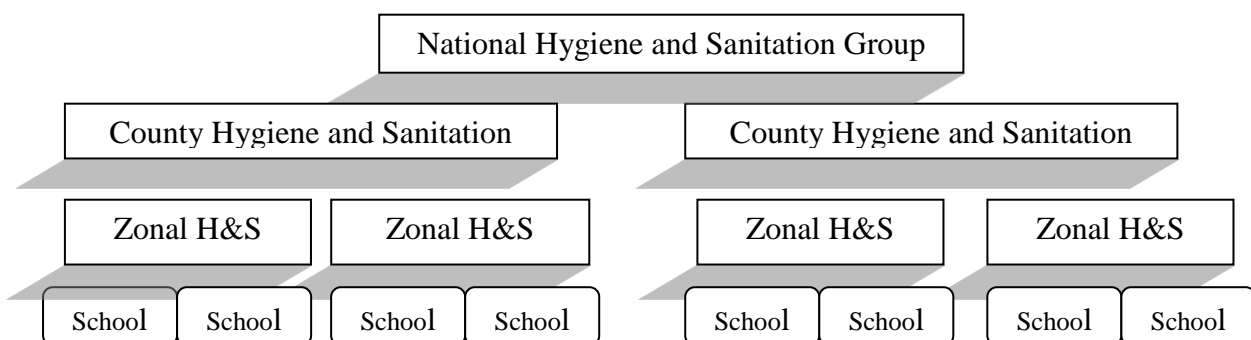
Managing diversity is a comprehensive process for developing an environment that works for all. It is a “culture” change process that ensures complexities such as systems, policies, and practices benefit all. Introduction of puppetry in schools to support hygiene promotion efforts is a departure from approaches that have been used before. Ministries involved, school management and the teachers view puppetry approach as new and complex. Of great importance to the success of this puppetry initiative through health clubs is the development and establishment of a structure that supports the schools. This is a necessary prerequisite for creating the environment that enables schools to effectively introduce and use puppetry and/or complementary mechanisms for promoting HWWS and other hygiene messages.

Support structures have multiple roles to play. I discuss four key roles that were emphasized during the FGDs and key interviews with stakeholders:

- Supervision –Supervision is important not only for management purposes but also to ensure standards are set and maintained. Following interviews with stakeholders, it became apparent that the health clubs within the schools are run by the patrons and few (if any) Head Teachers know what goes on in the clubs. The teacher running it may be doing it as duty or out of love to improve the lives of the children. The government and stakeholders have set up minimum standards for WASH initiatives but implementation of this has been bogged down by lack of structures to support schools to implement them.

Stakeholders recommended a structure at the county level that would ensure the health clubs are monitored and activities standardize with uniform messages across the regional schools. The proposed structure would be coordinated by the District Public Health Officer with the District Education Officer hosting the secretariat. Other members of the team should include key players in the county in WASH matters. The county composition should be duplicated at the zonal level. The zonal team would be the one charged with the responsibility of monitoring school level activities.

Figure 9.1: Proposed Monitoring Structure



- Capacity Strengthening – One weakness identified by the stakeholders was capacity of staff at all the three levels (county, zonal and school). The national team that is already in place has adequate capacity to plan, design and roll-out programmes at the national level because of its composition with membership drawn from central government, development partners, civil society and the private sector. But for these programmes to

succeed, similar capacity has to be in place at the regional levels. Some counties and zones are better off than others, especially where a number of NGOs are implementing activities. A few schools have also a fairly strengthened capacity with Head Teachers, Health Club Patrons and even some PTA members trained in WASH by the NGOs. Under the proposed structure, the national group in consultation with the county groups will identify needs at zonal and school level and recommend suitable activities and programmes that will help strengthen capacity.

- Resource mobilization and distribution – Some stakeholders have argued that the country still has fairly adequate resources provided by donors targeting WASH activities. There is an ongoing problem in the way these resources are allocated and distributed across the country. Stakeholders even pointed out examples and stated how some regions have received huge chunks of funds from international donors supporting CSO's only to end up duplicating what has been done instead of venturing into new regions that have never had any funded activities. Other cases cited are too many CSOs working in the same region and competing to show the donors the gains made through their work.

Stakeholders again proposed that right from the national level, the H&S group should play an advisory role in determining how and what the funds provided to CSOs by various donors should be used for. Accountability of resources allocated for WASH should be governed at the lowest level. Once the community knows what has been allocated for the activities, it is bound to be utilized well on the intended purpose and cases of misappropriation will be minimized. Donors would be asked to seek the committee's opinion before funding request by both public agencies and civil society. This would ensure the distribution is fair and representative. Pilot and roll-out of large scale programmes would be coordinated by these committees as well.

- Enabling environment – Agencies implementing WASH activities have always raised concerns to the government about challenges they face in the process of carrying out their activities. The challenges may be related to existing or lack of policy to provide guidance on critical issues. Both international agencies and local CSO's have in the past raised their concern but no steps have been taken to iron out these hiccups. The stakeholders interviewed felt the unresponsive attitude of government authorities has been due to lack

of a platform by CSO's from which these issues can be raised and brought to the attention of those in authority. If the proposed structure was set and eventually recognized under the law, it would be a good platform from which stakeholders would feel comfortable to deliberate issues and forward to relevant authorities in government at the national level for follow-up and action.

An environment will have to be created in which WASH can flourish. This means that policies must be put in place, budget needs to be available, supportive structures established, and that teachers are well prepared and make WASH a team effort and that contact with other community-level organizations is sought to make the school activities more meaningful.

In common with the Peer Educators model that was used in Kenya to address HIV, the health clubs are likely to serve as springboards for in-depth discussions, training and interactions to help the children master detailed information and give them skills to facilitate a variety of discussions, with the objective of stimulating behaviour change among group members (Russell 2008), peer educators were also trained to recognize when participants may be changing their behaviour (Family Health International, 2002). The quality of the questions emerging from the community at different stages of the dialogue during peer education sessions became an important indicator of progress. The delivery of information disseminated to beneficiaries was designed to respond to questions emerging from communities as they deepened their ability to reflect on their predicaments through peer education. One objective of peer educators was to provoke more and better questions from the community. Behaviour change was then to be monitored by observing how questions changed as risk perceptions were altered (Family Health International, 2002).

9.4.2 Social and Community Mobilization

“Social mobilization is a broad-scale movement to engage people’s participation to achieve specific development goal through self-reliant efforts “(WHO 2003, 93).

In this section I look at social mobilization at the first level when I identified potential partners (mapping exercise) and approached them to participate in my study. The second level involved the puppetry workshop and performances. At the latter level, it is important to examine how different stakeholders took up different roles and how this approach enhanced the study. There are two fundamental characteristics of the Social/Community Mobilization approach. The first is its characterization of the variety of individuals, social and organizational roles and relationships in the community that might be used in a concerted campaign or initiative. As discussed in Section 3.1, I identified partners based on their strengths and expertise in WASH sector and their potential contribution (see also Table 2.2 on Partnerships and their roles and responsibilities) The second and most important aspect is the description of the nature and extent of the involvement, ranging from simple endorsement to building active coalitions around a health initiative. As was discussed in Section 3.1 the HWWS puppetry team began by seeking the community’s endorsement as well as getting their support through deeper involvement, such as just taking a keen interest in what the children were doing, contributing money to make puppets (in premier academy), allowing the puppeteers to perform during key events in the school, etc.

Although this PhD study did not aim to investigate the broader issue of stakeholder involvement, some of the officials who were interviewed for this research alluded to some of the challenges that have led to lack of stakeholder interest in HWWS programmes that are supposed to be community-based in Kenya. Some of the reasons included varying approaches by programme implementers as sometimes dictated by funding agencies, depending on the goals of the project and aims/attributes of the community, lack of consultations before and during conceptualization, different viewpoints held by implementing agencies and the community, competing interests among partners, lack of evidence to justify selection of interventions etc. The following sections discuss how this PhD project attempted to overcome such limitations through careful consideration of partnerships, participation and diversity of partners.

i. Partnerships

Formation of partnerships among key stakeholders in the community was considered thoroughly during the initial stages of the study. A mapping exercise revealed that there were dozens of partners from all sectors (public, private, civil society and development partners) operating in the study area that may have been interested in the collaborating in the study. I worked on a shorter but more realistic list based on the scope of my project, the timeframe I had to complete the study, my resources and my interests and passion in promoting HWWS. I simply referred to this as the realistic picture on the ground. I selected and approached those who I judged would be able to fully support my efforts and add value to the process as discussed in Section 2.1.6.

The partnerships continued to evolve throughout the period of the study. The process and the puppetry approach generated a lot of interest among partners in WASH sector as partnerships played a critical role in the puppetry initiative's success. The most important of the lessons and best practices that were learned in the process were:

- Roles – Every partner played a different role complementing each other. This role may not have been directly contributed to my PhD study but it was critical to ensure all the project facets were covered just in case I required the partners help. For example, the Ministry of Water and Irrigation was a key partner. During the project implementation, the Ministry did not in any way provide water even though this had been singled out as its main role. But the advice and counsel provided by officials from this ministry provided useful insights that enriched my PhD study while at the same time providing psychological comfort to the research team that if we should have required water, the ministry would be at hand to assist.
- Managing competition between partners – I had appealed for support from three soap companies. All had responded favourably to my appeal and pledged to support by providing soap samples for the handwashing trials. I, however, realized that they all needed publicity from this effort hence chose PZ Cussons as they were the first to confirm support. I made this decision based on my experience in dealing with the private sector as the National Handwashing Initiative Coordinator with the World Bank. Through that role, I had learnt that

private sector partners were not comfortable working with their competitors on one project where they have to share publicity.

- Coordination of partners and stakeholders – The larger the group, the more challenging the coordination. As my project was academically oriented, the Ministry of Public Health and Sanitation together with the Ministry of Education gave me their blessings, permitted me to proceed with the study, and asked me to keep them posted of progress. However, they did not become involved in the coordination of the partnership, which I had to manage by myself. This worked well for me overall but I lacked the “muscles” that usually accompany government coordinated initiatives. I had to apply more diplomacy and personal contacts to ensure the scheduled events went on with good attendance from the partners and other stakeholders
- Level of partnership operations – While choosing partners, I considered their roles and at the same time, their level of operation. Partners included agencies and organizations that operate at national level with expertise in WASH but, at the same time, I retained agencies that operate at community level. Individuals with a stake at all levels were critical to the partnership. For example at the school level, parents and staff members chose to support the initiative from their own personal interest and benefit.

In sum, partnership is a critical ingredient in social mobilization. The choice of partners, level of involvement and roles they play make or break an initiative.

ii. Participatory approaches

Participatory approaches were important because in a social mobilization, there are many stakeholders playing different roles in an effort to achieve one goal. These efforts have to be coordinated by one entity that enables all stakeholders to not just to be heard but to represent their interests. If the process is not participatory, critical voices may be muffled and there may be disgruntlement and fall-outs.

My puppetry programme used participatory approaches, such as from the consensus building efforts (as discussed in Section 3.3) and puppetry workshops. This promoted the following values:

- Equality – in distribution of power, decision making, etc. While in most programmes with children adopt a top-down approach, in my puppetry trials, the children had a chance to make decisions and contribute to the workshop process. Both boys and girls had equal opportunity to participate and air their views openly without the adults (teachers and research assistants) influence.
- Fairness – rational, justified and impartial processes within the partnership. As the principal researcher, I assumed the role of the partnership coordinator. I took time to explain to the partners what this study was all about with their clear roles and responsibilities. Throughout the study period, all the partners never complained of irrational decisions or unfair treatment to anybody.
- Rights – based on functions and mutual respect. As stated in the bullet point above, the partnership was based on respective functions and mutual respect. All the partners including the children enjoyed their freedom and rights. This was a voluntary partnership and all partners were free to join or leave at will.

iii. Diversity

In social and community mobilization, stakeholders with diverse backgrounds join the collaboration. Most of the partners in this project were organizations already working in different aspects of WASH with their own missions, strengths, weaknesses, resources. In most cases, the advantages of this outweighed the disadvantages and challenges caused by the diversity of interests.

For my puppetry project, the partners complemented each other very well. The partnership brought synergy that I had not anticipated. This energized the team and especially when the partners realized they were not being asked to make any financial contributions to support the initiative. What did I learn from this?

- Partners have their own strength and weaknesses. When deciding on roles the stakeholders should play, it is important to assign partners roles in areas where they have strengths and comparative advantages. When partners are recognized and acknowledged for their strengths, they feel encouraged and motivated..
- Partners have their own mission and vision, thus already know what they want to do and how to go about doing it. It is therefore challenging to align their thinking, mission and vision to fit yours. An initiative that brings together several partners

with different missions needs to agree on how they will reconcile potential conflicts between their own organizational goals/methods and the initiative.

- Resources are key to the success of any initiative. All partners should be accorded respect and acknowledged as equals, regardless of whether they bring a great or small quantum of human, material or financial resources to the table.
- Individuals are also interested in joining such partnerships. Individuals who contribute may represent their organizations, while others may be simply be interested in offering personal support towards initiatives that serve the public good (in this case, the welfare of the children and the community). Parents and teachers in the communities where we piloted this project fell in the latter category. Their passion and determinations to promote WASH in their community was the force behind the project.

While comparing the social mobilization model to the public private partnership approach (PPP), an FGD member said:

Kenya had adopted the Public Private Partnership model spearheaded by WSP and MOPHS to implement HWWS program. The model has pros and cons. For example, partners from the private sector while supporting the initiative had different objectives. Their support was intended to promote sale of a specific brand of soap, be seen to be supporting CSR activities as well as well as gain publicity. This brought friction especially between the soap companies and their boardroom woes came to the fore. PPP will work only when the partners realize that the need to change children's behaviour supersedes their own commercial interests (Development partner official)

Although PPP and social mobilization are different, this official was attuned to their similarities. They two concepts thrive on a form of partnership and the private sector is a key player in both approaches. The fears and concerns raised by the stakeholders must be addressed as coordination mechanisms are set to avoid disappointments when the private sector begins pushing their agenda.

9.4.3 *Puppetry Workshops*

Chiavo notes that: “Good community mobilization is complimented by or relies on good communication tools or approaches such as theatre...most important they need to be delivered by and for the people” (Chiavo 2007, 171). The puppetry workshop process was based on this premise. Puppetry workshops were chosen for this project because the approach suits Schiavo’s perception of a good community theatre approach that facilitates social and community mobilization. The community members are engaged in the process to learn and deliver the messages to their own people.

The children and teachers in the health club were invited to identify the problem. During this process, they examined at the relationship between hygiene and health, and how that affects education. Although this study did not set out to investigate the benefits of handwashing with soap, children who participated in the puppetry workshop and others we interviewed emphasized how strongly they felt about those outcomes.

- Healthy children are more likely to learn more effectively Children in the FGDs stressed that a number of them are faced with major health problems and it is evident that this affects their effective learning. “One does not have to be badly off (very sick) to miss school, but even when they come to school feeling unwell, they cannot concentrate in class as they may be in pain...this affects their learning” (Class six pupil, Toi Primary).
- Health promotion leads to healthy children and effective learning hence better learning outcomes and educational attainment. Anecdotal evidence indicates that healthy children attain better grades in exams. One child summed her experience by stating that “I have seen children who perform well in examination are usually those who don’t miss class or suffer from diseases....so I believe when one is healthy, he or she is able to perform better and get good grades” (Class eight pupil, Boonhouse Primary).
- Better education helps children meet their social aims - Focus group discussions members explained that once a child is performing well in class, they also appear to do well in other social activities. This was also linked to good health of which hygiene habits contribute considerably. “[My] classmates who top the class are also good in sports, drama and debate...just to name a few. Those who are struggling in class work hardly

excel in extra-curriculum activities. Although not all...but poor health is a major contributor” (Class seven pupil, Premier Academy).

- Young people who feel good about their school and themselves and who are connected to significant adults (role models) are less likely to undertake high risk behaviours - One teacher said that from her observation “children who are confident tend to perform well in class...this confidence is drawn from a good feeling they have about themselves, their school and significant trust they have in selected role model (in or out of school)...such children hardly make mistakes when it comes to making right choices” (Health Club Patron).
- Schools are worksites for the staff and are settings that can practice and model effective worksite health promotion for the benefit of both staff and pupils. Stakeholders in this PhD research emphasized the need to focus on both teachers and pupils in our initiatives. They felt that these two complement each other and they need each other. If the emphasis is on the children alone, there is a possibility the teachers will feel they are left out but if the activity benefits both groups, it is likely to gain the teachers support. “It is therefore planners and programme designers begin considering of initiatives that benefit both teachers and students...if teachers are practicing these positive behaviours, it is possible the children who look up to role models will do the same” (CSO official).

Although children did not initially connect handwashing to these benefits, such insights did emerge when they engaged in further discussions and brainstorming, and this understanding became even clearer and more entrenched when they began writing scripts with messages. The workshop participants explored various ways and language they believed their peers will understand easily and best. It became apparent that if I had written the scripts for them based on my knowledge on handwashing, students would not have undergone the journey of self-discovery and the messages would have been crafted differently with a different language format or style. The content of the scripts evolved and changed as the rehearsals progressed and eventually what was performed was so different from the drafts initially written. The changes were proposed by the children during the rehearsal as it assumed workshop style with all participants making their contributions to the whole process.

When children who watched the shows were asked to state what messages they singled out from the shows, they were able state all the key messages, an indication that they were clear

and identified themselves with what their peers presented. During the performance, the children were fully engaged in the show. The concentration was attributed to the mystery nature of puppets. However it also came out that they were following the storyline as majority of them clearly responded to the facilitator/narrator when questions were asked and statements that required their responses were raised. At the end of the show, the children were engaged in a discussion to explore solutions to challenges facing them. They were able to point out what may be done to mitigate against these challenges.

9.5 Can Social Mobilization promote Sustainability?

Stakeholders interviewed shared their opinion and experiences regarding the sustainability of the HWWS initiative and promoting handwashing behaviour through puppetry. Evidence I have obtained from the schools however indicate that the schools are facing some challenges that must be addressed for the initiative to be sustained. These challenges include provision of soap, water, coordination of partnership, and motivating teachers to ensure the behaviour is promoted through the health club using a puppetry approach.

Generally, stakeholders agreed that sustainability is possible but depends on a number of factors and processes. As a stakeholder from the public sector suggests:

Partnerships bringing together the public sector, private sector, civil society organizations and community members is definitely one way of promoting sustainability of an initiative. Although the program may be conceptualized at the top, consultation with the stakeholders are critical to enhance ownership....once the stakeholders buy-in and realize the benefits of the initiative, they are likely to embrace the idea and support it fully. All we need to do is to ensure there are structures in place to support the activities and ensure less reliance on donor support.... (Government official)

Another official proposed that for such initiative as the puppetry programme to succeed and become sustainable, efforts have to be made to provide support:

I believe that the activities are sustainable but with assistance of the students, teachers and parents over the long run. Monetary assistance

would help to sustain puppetry within the schools. More support from trained puppeteers would go a long way in sustaining the activities in the school...interest by the education authorities in such activities would be a valuable source of support. I wish it [puppetry] can become part of the curriculum one day (School Head Teacher).

Several key points arise based on stakeholder's opinion on sustainability. First, sustainability of the HWWS initiative is depended on survival of the partnership created. If the partners are able to support the school management, it is likely to ensure sustainability of activities and services. Secondly, to ensure the puppetry approach is sustained, the children puppeteers require support from the adult puppeteers. Lastly, community ownership is critical. If the local community (which includes school management) support the children, the activities are likely to continue and this will ensure continuity of HWWS behaviour among children.

9.6 Conclusion

Chapter 9 has identified key issues that facilitate and motivate Kenyan child to wash hands with soap through information provided by key stakeholders and insights gained through engaging children in the puppetry workshop process and observation. These are teachers, recognition of children who practice HWWS behaviour, convenient location of handwashing facilities including the number and type of facilities, availability and amount of water and soap, as well as children as role models and change agents in the community.

My PhD study also found out that children learn from their peers but also there is potential for them to learn from local and national celebrities. Health Clubs within the school have been identified as ideal platform with unharnessed potential to address HWWS in particular and WASH issues in general. The importance in this puppetry project to promote HWWS by taking a holistic and thematic approach, ensuring repetition of messages during various campaigns and having appropriate reward systems for participating children (champions).

This pilot study has explored places that are ideal to promote HWWS behaviour. Schools or any other settings where children have extra-curricular activities provide opportunities for children to interact and to learn. Socialization agents in a child's life may be persons and organization such as family members, peers, mass media, schools and retailers. Children learn their skills, knowledge and attitudes through interactions with various social agents in

specific social settings. The role played by teachers in shaping children's behaviour cannot be underestimated.

During the puppetry workshop implemented through health clubs, children got an opportunity to express themselves, idealize, innovate and chart their communication path based on their beliefs and aspirations. Supportive mechanisms by stakeholders to provide much needed resources to enable schools to establish puppetry programmes that can address WASH issues as well as coordinating structures by relevant government departments and the school management and accountability are critical.

I emphasize the importance of ensuring that both software and hardware are key factors when promoting handwashing with soap among children in the school environment. Handwashing programme implementers have to look at four critical issues: the enabling environment, supply of necessary tools, ways to create demand, and maintaining quality of the services. Above all these, the role of the children is critical. Their voice must be heard.

Chapter 10

Recommendations for Future Action, Policy Implications and Further Research

“The most beautiful bird gets caged first” goes an African saying.

There may be many “birds” in form of approaches that can be used to promote HWWS in schools. Puppetry has been tried and tested. It may not be the most beautiful “bird” but it is the one in the cage at the moment.

10.0 Introduction

This study explored what conditions need to be in place if HWWS initiatives are to be successful in primary schools in Kenya. As part of this project, I have explored participatory HWWS interventions, with a case study of puppetry. The study generated evidence to show that this approach can be considered for scale up in an effort to complement other methods and approaches currently in use to address hygiene issues affecting school children.

Engaging children is a complex matter due to various reasons. Although schools provide a captive audience for any programme implementer and a good entry point in the community at large, due care has to be taken to ensure all stakeholders are mobilised and involved in the process to ensure their buy-in and sustainability of the initiative. In the process of gathering evidence to support viability of puppetry, this study has also raised some questions that I am unable to answer in this context. Some of these questions I recommend may be explored in future or subsequent studies.

This chapter extends the conclusions reached in Chapter 9 by covering the recommendations that arise from the pilot puppetry study in the three schools and looking at the research and policy implications for the design and implementation of handwashing with soap initiatives in schools. Section 10.1 addresses implementation of the puppetry programme that might potentially address not just for promoting handwashing with soap but other issues relating to

health and hygiene. Section 10.2 delves into policy implications and issues. In the process of the study, I have also come across several areas where it was not possible to reach definitive conclusions. Section 10.3 highlights these gaps either as challenges or areas where future research is required.

10.1 Recommendations for Future Action

This study aimed to explore what conditions need to be in place if HWWS initiatives are to be successful in primary schools in Kenya and in addition to contribute to approaches used in promoting HWWS in schools in Kenya. Evidence gathered through consultation with stakeholders, school management teams and the children as well as observations that there are a number of conditions that need to be fulfilled for HWWS initiative to succeed. I noted during puppetry workshops and behaviour trials that puppetry is a viable and effective approach. In support of this study, I have identified eight recommendations that are important and key to successful implementation of a HWWS initiative in Kenyan primary schools as well as successful introduction and implementation of puppetry as an approach that may be used to address hygiene and sanitation in primary schools. This study recommends the following:

10.1.1 *Adopt a holistic approach to WASH:* Stakeholders involved in handwashing with soap initiatives have strongly argued that it will be cost effective, save time and resources to have interventions in school that address three critical areas under WASH – toilet use, safe drinking water and handwashing with soap. Addressing the three thematic areas will have several advantages: reduce workload on teacher and pupils; pull donor resources into one basket and operate under the health club; messages are complementary and all use one approach, e.g. puppetry scripts will have messages that address the three issues without overloading teachers and pupils with activities to address the three themes.

10.1.2 *Involvement of all actors in the community:* The advantages of social mobilisation approach in rallying the community towards a cause have been noted. Before initiating a project in a particular school, I recommend that a mapping exercise carried out to ensure all key players are engaged and their role and responsibilities is clear. This approach harmonises activities, reduces competition harnessing resources and promotes synergy. Within the school environment, there are actors whom we can easily neglect in our planning process but may

turn out to be influential. For example, food vendors who sell food to children around the school compound may play a role in promoting handwashing if they are sensitized and their capacity strengthened to enable them meet the challenges they encounter.

10.1.3 *Employ multi-media communication approach to WASH:* No single approach in communication will achieve desired results. For a communication initiative to succeed, it is recommended that multimedia communication approaches are employed; messages are designed to suit different sets of actors, audiences and settings; and more important, children are involved in designing the messages that resonate and appeal to them. Positioning of the messages for interpersonal communication, print and other mass media channels is also important and must be carefully crafted and delivered. It is critical to ensure messages delivered through different channels are not contradictory and confusing to children. Stakeholders noted that after more than four decades of hygiene promotions in schools, handwashing rates are still very low; it is time for the stakeholders to reconsider the approaches that have been used. Changing a school's hygiene culture means understanding these issues and finding solutions to fit each case.

10.1.4 *Strengthen capacity of teachers and school management:* Previous initiatives have focused more on the pupils and neglected those who are expected to support the activities in the school. Stakeholders must strengthen the capacity of teachers and other key members of the school management to ensure they have the knowledge and skills to support the children in their activities. As much as we want to engage the children and make them the centrepiece of the handwashing activities, teachers and the school administration will remain the glue in the process. Programmes must therefore invest in strengthening this group's capacity.

10.1.5 *Stakeholders to coordinate and step up resource mobilization:* Although WASH activities are coordinated by the Ministry of Public Health and Sanitation, stakeholders implementing such activities mobilize resources individually as organizations. It is recommended that resource mobilization can be coordinated under the same arrangement by MoPHS to reduce duplication and effectively utilize the resources available. It is important that resource mobilisation process is coordinated centrally but implementation of decisions is participatory and transparent to ensure the beneficiaries' voices are represented.

10.1.6 Emphasis on school-club based activities with children playing a central role:

Children are key drivers of handwashing with soap activities. Initiatives in schools should be run through established clubs whose activities are designed and driven by the children themselves. Health or Environment clubs, where they exist, have been instrumental in raising prominence of initiatives in the school as they provide a platform for children learning. Children stated that they learn better in a fun environment. Activities that can make HWWS fun and are more likely to work in schools than class based activities that use a lecture mode.

10.1.7 Availability of adequate facilities, including soap and water: Children will only make handwashing with soap a habit if and when facilities are designed in ways that reduce hindrances and limit the obstacles. This is a tall order for most school based on the prevailing economic and physical conditions. However, authorities and stakeholders must prioritize this factor if there is to be progress in the WASH sector. When constructing toilet facilities, authorities must ensure the plan includes a handwashing facility. Ideally such facilities will be located proximate to toilet facilities and in a position that children will pass when they leave the toilets to go to classes, designated eating spaces or play areas.

10.1.8 Adopt technological choices that are efficient and effective: From the field observations, focus group discussions and interviews it was evident that schools and children can come up with a range of technical options, innovative handwashing based on affordability and sustainability. Local people have made use of both indigenous knowledge and technology based on cost and efficiency. Schools should be encouraged to innovate and establish facilities that are hygienic and affordable for children's use. The coordinating agency needs to find a mechanism of assisting the innovators as well as quality assurance.

10.2 Policy Implications

The implementation of these recommendations will have several implications on the various sectors involved in the improvement of sanitation and hygiene in schools. Based on my pilot study findings, the following sectors will be affected and will need to adjust or make changes if they are to accommodate implementation of this approach:

10.2.1 Water, Sanitation and Hygiene policies

Kenya has developed and launched an Environmental Sanitation and Hygiene Policy that covers all the three of the thematic areas. In 10.1.1 above, a holistic approach to WASH was

recommended. This asks for realization of total sanitation outcomes, beginning with eradication of open defecation and improved hygiene practices, including availing safe drinking water for children. To achieve these, a number of policy issues have to be addressed:

- Budgets – Stakeholders from civil society organizations have from time to time called upon the government to begin allocating resources towards WASH initiatives. In the past, the national government has depended entirely on resources from development partners to support WASH activities. Recently, the government has become keen on playing a major role and is likely to influence policy decision on the role the concerned ministry plays. Funds will have to be devoted towards assisting the three key ministries (Education, Water and Irrigation, as well as Public Health and Sanitation) to plan and implement WASH activities. This would require a major policy shift to be spearheaded by the technocrats in the ministry to influence the Treasury (the allocating authority) and not pressure from the civil society.
- Availability of water- Provision of water to schools has always been left to the local authorities and the school community. Within the government operations, the mandate lies with the Ministry of Water and Irrigation. For schools all over the country to get water, there has to be a policy shift and this to be clearly spelt out. One authority will have to be given that responsibility and ensure schools have water.

Increasing student's knowledge about health and disease prevention should therefore only be part of the story. This stresses the importance of combining hygiene education with the construction of water and environmental sanitation facilities and involving the students, teachers, community and other concerned governmental institution in school sanitation and hygiene. Knowledge must be supported by enabling and reinforcing factors if students are to become agents of change in the process of bringing about qualitative environmental sanitation changes not only schools but in households and in the greater community as well.

- Embracing School Led Total Sanitation (SLTS) - is one approach that stakeholders may have to consider. The SLTS programme aims to bring total sanitation (100% Open Defecation Free) in targeted school catchment areas which are made up of identified settlements and clusters. Incorporating the approaches and tools of School Sanitation and Hygiene Education, Community Led Total Sanitation, Basic Sanitation Package into the

School Led Total Sanitation model has further enhanced the prospect of achieving total sanitation and sped up the steps of reaching the MDG and national goal of achieving 100% latrine coverage (SIMU 2006). This approach lays emphasize on the three thematic areas that should be addressed (Safe Drinking Water, handwashing and toilet use). To embrace SLTS requires policy shift in the sector to ensure all partners implementing WASH are involved in a consultative process that will see buy-in, strengthening capacity of frontline staff and teachers in the schools.

10.2.2 Partnerships in schools

Forging partnerships seems simple but has complexities that sometimes make implementation and achieving of intended goal and objectives difficult. Partnerships that cut across several sectors make it even a more complicated affair. Development agencies have their own policies that guide partnerships and collaborations with civil society, private and public sectors. Whereas it may be easier for governments to engage with the civil society and the development sector, it becomes complex for the other sectors to engage freely. To promote healthy partnerships in WASH, stakeholders involved may need to examine some policies and adjust accordingly to suit the on-going initiatives. A major bone of contention has been on branding of campaigns by the private sector (especially soap manufacturers) while bilateral partners have insisted on non-branded campaigns. The two positions are dictated by institutional policies of the two sectors. The government at times has assumed a middle ground based on what the partners are bringing in. This sticking point needs to be addressed to smooth WASH in school operations.

Care must be taken with regards to whom school doors are opened to. Agencies and institutions that work with children have found it easier to engage children in school environment. Management of these schools have expressed their reservations regarding the “invasion” of children’s space in schools. WASH stakeholders therefore need to be careful whom to engage with and policy must be very clear on conditions as well as areas of operation.

10.2.3 Education policies

Majority of stakeholders I talked to suggested that puppetry should be incorporated in the education curriculum to ensure it has prominence just like music, poetry, drama and other

artistic subjects. Revising curriculum to incorporate puppetry requires advocacy efforts by stakeholders. Stakeholders who believe in the viability of puppetry as an approach that will make a difference by complementing other WASH initiatives need to come together and begin lobbying for the policy changes within the relevant ministry and other institutions that play a role in this.

This approach does not necessarily mean that the health club approach should be shelved. The idea is to get puppetry in the syllabus to ensure it is recognized as one of the skills that will help and shape abilities of the children to be able to interact, innovate and communicate their thoughts and feelings to the outside world. This is a major policy shift that would require resources and time to implement. The process involves engaging curriculum development officials from the Kenya Institute of Education to design a training program for in-service teachers and later to be incorporated in the Teachers Training Colleges curriculum.

10.3 Areas of Further Research

This study had very clear goal and objectives and the findings have mostly addressed these questions. However, in the process of collecting and analysing data, further questions arose. . Below are some of the areas I would like to pinpoint for future studies:

10.3.1 Just how much information that children learn in school is carried home to parents and siblings?

This PhD study strongly supports the idea of engaging children in school with the hope that they are able to transfer some of the positive messages home to parents and siblings. Further research may evaluate how much of the information they learn in school is actually shared at home, how and when, and if not, what are the obstacles? Parents and siblings might also be evaluated to find out how much they understand and if they practice what they learn from the school children.

10.3.2 Does the type of soap provided to pupils for handwashing motivate them to wash hands?

The baseline study by the World Bank published in 2009 attempted to look at motivators of handwashing with soap among school children. During the baseline study's handwashing trials, both bar soap and liquid soap was placed at the handwashing facilities. There was a

notable increase in the number of children who washed hands when perfumed soap was made available, but this analysis was not conclusive (World Bank 2009, 51). Observations showed that children hesitated using bar soap if it was soiled or left in places that seemed dirty. Children said that that they were not keen to share soap as there is a possibility of getting infected through such practice.

Advertisements that traditionally encouraged handwashing with soap (showing soap tablets) are now increasingly using the gels. Most children said this has bolstered the belief that there are issues with bar soap. During the baseline study (World Bank 2009, 40), the soap scent featured as a motivator at the school level but this information was contradicted at the community level where mothers said it affects the smell of food (when they use soap before preparing food or eating). My research similar showed that children often found the scent of soap as a turn-off (see Section 7.1.6.2). These are the research gaps that need to be filled to determine whether type of soap, scent as well as packaging affects the user.

10.3.3 What is the role of home culture and other community practices in motivating children to wash hands with soap?

Children interviewed indicated that they begin learning hygiene practices at home from their parents and older siblings. In most communities, culture and other traditional practices including religion play a key role in shaping children's behaviour. The Handwashing Baseline Study showed that more girls than boys practice hygiene habits including handwashing (World Bank 2009, 46). The same study revealed that handwashing prevalence is higher in some regions of Kenya than others. Predominantly Muslim communities have recorded slightly higher handwashing rates than other parts of the country (World Bank 2009, 23). This PhD study has also revealed the same and that is why I recommend that a specific study to answer these questions will enrich literature about handwashing among children.

10.3.4 What channels or sources of information are ideal for disseminating handwashing messages in schools?

A number of initiatives have been tried in Kenyan schools, with most focused on communicating handwashing and other hygiene messages to children. Information has been delivered by teachers in class in form of lectures, messages have been designed and different mediums used (brochures, flipcharts, posters, fliers, radio and TV spots, poems, songs, skits/drama etc). All these channels have had a role in improving knowledge and some extend

changing behaviour. A study is needed to evaluate all these initiatives and compare their effectiveness.

My puppetry study looked at the viability of the approach and delved more on the process of institutionalising the approach. The study also did not go deeper to compare the effectiveness of puppetry in relation to the other approaches and channels, as the objective was to find a complementary approach. To fill the gaps, future studies could evaluate the messages, channels used, and approaches used and compare of these approaches to determine what is more effective for the children.

10.3.5 A study to analyse quality of tippy taps and leaky tins in schools.

Due to resource constraints, a number of schools have adopted tippy taps and leaky tins to overcome shortages of water, taps and/or sinks. This technology has become so popular and common that most stakeholders have been promoting its use in schools as less water is used to achieve the behaviour desired.

Critics have, however, argued that some of the technology may be harmful. Leaky tins and tippy taps have been cited as a source of contamination, but critics have never presented any tangible evidence to show that the risks outweigh the benefits of this simple and cost effective technology. It is of great interest to all stakeholders if a study can be commissioned to look into the issues that have been raised for the benefit of the users – children.

10.3.6 Further study of puppetry as a complementary medium to promoting hygiene messages.

My PhD study faced several constraints. I was unable to expand my methodology to observe children's handwashing with soap behaviour because of time and resources. Information based on observations, and interviews with children and stakeholders indicate that puppetry has the potential as a complementary medium to promote hygiene messages in schools. My study was not able to explore and conclude this hypothesis. I observed that children's handwashing behaviour improved steadily after the puppetry workshops (see section 7.1). The observations only lasted two weeks. This gap raises the possibility of further research of puppetry intervention that does formal before puppetry workshop and after puppetry workshop observations to determine exact rates of change and follow-up observations after six to 12 months to see whether the changes in children's handwashing habits can be The

study though costly and time consuming will provide a clearer indication of the potential benefits or otherwise of the participatory puppetry approach trialed in this thesis.

10.4 Priorities for Future Action

In the foregoing chapters, handwashing with soap among children is an important public health intervention that prevents disease infection and saves lives that must be encouraged. In conclusion, I would like to recap the following actions that must be emphasized if WASH interventions are to be successful and have impact among school children:

10.4.1 Prioritize WASH Interventions

Over the last five years, stakeholders have led sustained efforts advocating for handwashing with soap initiatives. To date, Kenya government led by key officials in all ministries are very supportive. Political will has been gained as well with ministers and head of state recognizing and marking Global Handwashing Day. The private sector has joined forces with other stakeholders to support a number of key activities. The situation is comparable to the 1980s and early 1990s when HIV became a major threat to our youthful population, and the relevant government organs with support from other stakeholders moved in haste to arrest the situation. HIV became everyone's priority. This is what is needed with HWWS. Presently handwashing activities are largely defined by the head teachers of schools, and what needs to be done within the schools depends largely upon school management. It is important that all the stakeholders address this problem and make it a priority.

10.4.2 Review of policies

Policy changes are needed to ensure that current interventions are in tandem with realities on the ground. All the sectors (public, private, civil society and development partners) have been caught up in this situation without clear guidelines, hence the need to collectively review their out-dated policies. For example, hygiene messages in the curriculum have not led to sufficient, sustained behaviour change in schools. Better ways of sharing this information must be devised to ensure the messages are delivered effectively. The role of the teacher in hygiene is not limited to his/her delivery of hygiene messages found in the curriculum. The teacher's role should extend beyond the mere transfer of knowledge to pupils so that they act as catalysts who can engage with the children to trigger change.

10.4.3 Evidence based programming

Research is needed before developing interventions for children. Developing hygiene programs aimed at schools without engaging children's voices is unlikely to succeed. Similarly, any program aimed at measuring behaviour change should develop a framework to monitor and evaluate the anticipated behaviour change, the processes and impact of these interventions.

In the last couple of years, development partners supporting handwashing initiatives have been asking for evidence of results in terms of behaviour change. However, behaviour change is not an overnight phenomena; it is a process that must be midwived and nurtured before it is achieved. Development partners must therefore understand that the seed they are planting today will sprout after some time; not overnight. This is an issue that must be discussed at the onset of a programme, and parties must agree on expectations and the timelines and systems for evaluation.

10. 5 Conclusions

This research has identified many factors that need to be put in place to promote HWWS initiatives in schools. These include infrastructure such as health or environment clubs in schools; hardware such as provision of handwashing devices and soap; and software such as messages that motivate children to practice HWWS. There also needs to be organisation, policy, community involvement and the use of approaches that allow children's voice to be heard.

The study has found that puppetry has the capacity to be a very effective complement to other means of promoting handwashing with soap. However, if puppetry is to be effectively introduced into schools in Kenya, then various steps need to be taken. As was discussed in Sub-Section 10.1, those involved would need to adopt both a holistic and multi-media approach to WASH. They need to identify and involve all actors in the community, paying particular attention to strengthening the capacity of teachers and school management. They also need key stakeholders to coordinate and step up resource mobilization, possibly under MoPHS to avoid duplication and use available resources in the most effective fashion. The emphasis of these partners and stakeholders should be on developing school-club based activities with children playing a central role. Partners and stakeholders need to ensure that

these activities are supported by making adequate facilities available, especially soap and water, and ensure that technological choices such as taps and toilets are hygienic, efficient and effective.

There are also policy implications if puppetry is to be used as a complementary medium for championing HWWS. The government to begin allocating resources through Ministry of Education towards WASH initiatives and ensure relevant agencies provide water to schools. Strategies for implementing these initiatives should incorporate the approaches and tools of School Sanitation and Hygiene Education, Community Led Total Sanitation, Basic Sanitation Package into the School Led Total Sanitation. Implementers of these programmes should forge partnerships to include all stakeholders from the public and private sectors as well as civil society organizations. Efforts to incorporate puppetry in school curriculum should be encouraged.

Contextual research is also needed about handwashing with soap more generally in the Kenyan context. This thesis has identified several research gaps that need to be filled. Further research is needed to answer questions such as: How much of the information that children learn in school is actually shared at home? Does the type of soap provided motivate children to wash hands? What channels of information are ideal for WASH in schools and how effective are these channels? Leaky tins and tippy taps have been cited as a source of contamination, so what are the risks of these technologies and do the risks outweigh the benefits of this simple and cost effective technology? This thesis research has demonstrated considerable evidence of the short-term efficacy of participatory puppetry approach for HWWS interventions in schools, but further research could investigate the approach's impact in promoting both short-term and long-term behavioural change.

This thesis can be seen as an attempt to gather evidence for effective design and implementation of effective communications strategies to promote handwashing with soap, and the means to ensure that those communications are supported by appropriate facilities, organizational structures and policy frameworks. Development partners, government agencies, the private sector and NGOs need to adopt their own evidence-based approaches, which include realistic timelines and effective systems for evaluation that monitor and evaluate initiatives to encourage HWWS not just within Kenya but also other nations affected by similar problems.

APPENDICES

Appendix 1: Observation and Interview Tools

TOOL FOR INTERVIEWS WITH OFFICIALS IN PUBLIC & PRIVATE SECTOR, CIVIL SOCIETY AND DEVELOPMENT PARTNERS

This list is indicative only. The final question/discussion points will change depending on the research participant's responses and any issues/interesting observations that arise from the puppetry workshops.

PROCESS

- Introduction: Facilitator introduces himself and allows the participant to introduce themselves
 - Explain the purpose of this meeting. The participants sign consent forms.
 - Explain how long it will take: approx.1 hour
 - Ask permission to take notes or/ and record proceedings
- Emphasize confidentiality. No one will be quoted but if one is happy to be acknowledged in some of the reports produced, they should say so.

1. What is your view regarding the handwashing initiatives in schools in Kenya?
2. A lot of resources have gone into programs promoting HWWS in schools, what is the impact of these activities?
3. (Assuming s/he will point out some limitations) How can the limitations you have pointed out be addressed?
4. Do you think puppetry is a viable option? Why?
5. (If the answer in Q4 is yes) How can puppetry be institutionalized?
6. What are the major challenges puppetry may encounter in the process of institutionalizing it?
7. What can be done to mitigate these challenges
8. Is the partnership approach we used a suitable model for promoting HWWS in schools?
9. Does this model promote sustainability of HWWS initiative in schools?
10. Any other comment

FGD TOOL FOR SCHOOL MANAGEMENT

This list is indicative only. The final question/discussion points will change depending on the research participant's responses and any issues/interesting observations that arise from the puppetry workshops.

PROCESS

- Introduction: Facilitator introduces himself and allows the participants to introduce themselves
 - Explain the purpose of this meeting. The participants sign consent forms.
 - Explain how long it will take: approx.1 hour
 - Ask permission to take notes or/ and record proceedings
 - Emphasize confidentiality. No one will be quoted but if one is happy to be acknowledged in some of the reports produced, they should say so.
1. What are the major problems affecting the health of children in your school?
 2. What has the school community been doing to solve this health problem? If handwashing does not pop up, ask if it is a major problem? Why
 3. Have you received support for any of these activities from any organization? If yes who and what sort of support?
 4. If the interviewee's previous comments indicate that he/she thinks handwashing is a problem, then ask: How else can you try to solve this problem? If the interviewee's previous comments indicate that he/she does not think of handwashing as a major issue, then ask: Some organizations point to handwashing as a major health issue. Is there anything that they might say or do that might increase the priority that you yourself place on this issue?
 5. Do you think the approach that has been used before has been effective in changing the children's behaviour? If NO what was lacking? How can that approach be improved?
 6. What is your view about using puppetry?
 7. Did the partnership process help in any way?
 8. Do you think the school/community can sustain these activities? What assistance will they require?
 9. What challenges does this approach pose? What can you do to mitigate against the challenges?
 10. What other challenges would the school/community encounter?
 11. Any other comments

FGD TOOL FOR SCHOOL KIDS AFTER WATCHING PERFORMANCES

This list is indicative only. The final question/discussion points will change depending on the research participant's responses and any issues/interesting observations that arise from the puppetry workshops.

PROCESS

- Introduction: Facilitator introduces himself and allows the participants to introduce themselves
- Explain the purpose of this meeting. Teacher to sign consent forms.
- Explain how long it will take: approx.1 - 1.5 hours
- Ask permission to take notes or/ and record proceedings
- Emphasize confidentiality. No one will be quoted but if one is happy to be acknowledged in some of the reports produced, they should say so.

1. Have you ever participated in any other Health Club activities on HWWS promotion?
2. What was involved? Name some of the activities
3. How were the activities conducted?
4. Was it fun? Did you find it easy to participate in the activities?
5. Can you remember what messages were communicated?
6. How did you find the puppet show?
7. What did you like about it?
8. What didn't you like? What can be done to make it better?
9. Did you get an opportunity to participate by speaking up your thoughts and opinions?
10. Why didn't you participate as a puppeteer?
11. If given a chance, can you join the puppetry team now?
12. What message did you get from the puppet show?
13. Were the messages clear and easy to understand?
14. Have you shared any of the messages with anyone else? Whom?

TOOL FOR CHILDREN INVOLVED IN PUPPETRY WORKSHOP

This list is indicative only. The final question/discussion points will change depending on the research participant's responses and any issues/interesting observations that arise from the puppetry workshops.

PROCESS

- Introduction: Facilitator introduces himself and allows the participants to introduce themselves
 - Explain the purpose of this meeting. Teacher to sign consent forms.
 - Explain how long it will take: approx.1 - 1.5 hours
 - Ask permission to take notes or/ and record proceedings
 - Emphasize confidentiality. No one will be quoted but if one is happy to be acknowledged in some of the reports produced, they should say so.
1. Have you ever participated in any other Health Club activities on HWWS promotion?
 2. What was involved? Name some of the activities
 3. How were the activities conducted?
 4. Was it fun? Did you find it easy to participate in the activities?
 5. Can you remember what messages were communicated?
 6. What was your experience in the puppetry workshop process?
 - Construction?
 - Developing scripts
 - Characterization
 - Rehearsals
 - Performances
 - Facilitation
 - Any other comment?
 7. What did you like most about this experience?
 8. What was least useful?
 9. Any other comment?

TOOL FOR OBSERVING HANDWASHING BEHAVIOR DURING BREAK TIME

SCHOOL STRUCTURED OBSERVATIONS

This list is indicative only. The final tool will change depending on the research participant's responses and any issues/interesting observations that arise from the puppetry workshops.

1.0 IDENTIFICATION

1.1 Name of Observer _____

1.2 Date of visit _____ Day _____

1.3 Name of school: _____

1.4 Which toilets were you observing from?

Girls _____ Boys _____ Mixed sex _____ Other _____

1.5 Time start _____ Time end _____

2.0 FACILITIES

2.1 Location of HW facility

Inside _____ Outside _____ Separate from toilet _____

If separate from the toilet, approximate distance (in meters) _____

2.2 What is the toilet wall structure made of?

Stone _____ Iron sheet _____ Mud _____ Timber _____ Other (specify) _____

2.3 What type of HW facility?

Sink _____ Tank with sink _____ Tank with tap _____ Leaky tin _____ Tippy tap _____ Water bucket/basin _____ Other (specify) _____

2.4 Is there soap?

Yes _____ No _____

2.5 If there is soap, what is it?

Bar soap _____ Liquid soap _____ Powder soap _____ Water mixed with soap _____

Other (specify) _____

If you know the brand, please write it _____

2.6 Where is the soap?

Child brought from classroom _____

Soap by toilet _____

By the handwashing facilities if facilities far from toilet _____

Other (specify) _____

2.7 Was there water in the hand washing facility when you were there? Yes _____ No _____

Record Other Key Observations to include the following:

- Hygiene status of the toilets
- Hygiene status of the hand washing facilities. How is handwashing done?
- Number of toilets
- Distance from the toilet to hand washing area and classrooms. Draw a sketch map to show the distance and location

OBSERVATIONS OF STUDENTS LEAVING TOILETS DURING BREAK TIME

Instructions: fill out for all children leaving the toilet during the break time. If you miss whether they WH, fill in 'didn't see'. It is very important that you record all people leaving.

Observing: Girl _____ Boy_____

	Girl or Boy	Washed hands with soap	Rinsed hand(s)	Washed without soap	Did not wash	Did not see	Any other useful observation
1							
2							
3							
4							
5							
6							
7							
8							



**Creative Industries – Project & CI International Study Tours
Health and Safety Risk Assessment Form**

1 **Name:** Rufus Eshuchi
2 **Project No.**
3 **Portfolio:**
4 **Discipline:** Fashion, Media and Communication
5 **Research Projects** **Date** 28 / 05 / 2010
5.1 **Creative Industries Faculty** **Student No. n064063**

Research Project Information

Circle the appropriate activity pertaining to this risk assessment:

- Fieldtrip AND/OR
- Postgraduate Research - PhD Doctorate Masters Honours

Project / Activity Title:

Promoting Handwashing with Soap Behaviour through Puppetry among School Children in Kenya

Standard Operating Procedures:

Specify any established Standard Operating Procedures for this Research/Project that have a current health & safety risk assessment. Another risk assessment is not required for these Standard Operating Procedures, however, all new staff and students need to be trained in these Standard Operating Procedures and made aware of any relevant health & safety controls.

- The Australian Government’s travel Advice on Kenya
 - The US Government travel advisory
 - The United Nations security ratings
-

Non Standard Operating Procedures:

Please provide a full and complete Statement of Intent of the Research/Project activities and procedures that will be carried out not involving Standard Operating Procedures (or attach an existing copy of these activities and procedures).

OR

For projects where research staff and/or students will be involved in complex research activities and procedures (not involving Standard Operating Procedures) undertaken in workshops, studios, or on field trips etc, please attach a copy of the methods and procedures protocol for this work, to assist the health and safety risk assessment.

This research intends to examine the viability of puppetry as a medium to promote behaviour change among school children in Kenya regarding handwashing with soap. It will involve organizing puppetry workshops with children in selected schools in Kenya’s capital – Nairobi. The children will be involved in constructing the puppets, writing scripts and performing for the rest of the school. Research and methods employed in these settings will include participatory techniques, participant observation and interviews.

Two of the schools will be from the peri-urban Nairobi while the other two will be identified among the upper or middle class suburbs. After training, the troupes will perform the shows for other pupils under my supervision once a week for a period of eight to twelve weeks. Two observers will be positioned in the school compound to record cases of handwashing with soap among the children during this period. The recorded cases will be analysed against the World Bank baseline study of 2007 to determine the impact of these performances

on the children's HWWS behaviour. Instruments to guide the observation process have been developed. The performances will be interactive to ensure children discuss issues around handwashing with soap, examine the motivators and obstacles surrounding the practice and come up with practical solutions. Children within the group will be trained on how to facilitate the shows and discussions. Focus group discussions will be conducted for selected pupils not performing puppetry as well as teachers from week six of the performances. Interviews will be conducted with selected opinion leaders such as government officials, civil society organization workers and other stakeholders directly involved in the initiative. Focus group discussions will also be organized for the school management. The composition will include the head teachers, teaching and any support staff involved in the initiative as well as representative drawn from the parents-teachers association. Selected children not involved in the puppet shows will be invited to take part in a focus group discussion and interviewed from their perspectives as audiences of the puppet shows.

The researcher has been in Nairobi since December 2009 mobilising key stakeholders who include Ministry of Public Health and Sanitation, ministry of Education, Civil Society Organization and the Private sector. The researcher has worked and lived in Nairobi all his life and understands the local situation and is equipped to undertake such study. Despite the travel advisory by the Australian government, the researcher has also other sources of information and is connected to local news networks that relay news updates through the mobile phones whenever there are any events of significant risks. These networks include the Standard Media Group and the United Nations Security.

Travel to Nairobi will be by international flights (Qantas and South African Airways/Kenya Airways) Within the city, I will travel by car to the research sites. Occasionally, I may use taxis and other cabs.

Health & Safety Considerations

To ensure that key points are considered here, the following headings are generated from the advice offered on the Australian Government's support website, Smart Traveller; <http://www.smarttraveller.gov.au/zw-cgi/view/Advice/kenya>

Crime and personal security

The level of crime in Nairobi is high. Violent crime against Westerners, including armed carjacking, kidnapping for ransom and home invasions, occurs frequently and can be brazen and brutal. The researcher has lived in Nairobi for decades and is aware of the risks. Although crime is a concern in the city, one has to take necessary precautions to ensure personal security at all times.

The researcher will employ the following strategies to minimise risk at all times:

- Avoiding crime prone peri-urban sites in Nairobi
- restricting planned travel to daylight hours
- acting in a culturally appropriate manner
- conversing with locals in Kiswahili language (which the researcher is fluent in)
- using caution and avoiding unnecessary exposure to dangerous locations or situations
- limiting the value of equipment and other possessions carried while travelling such as money, jewellery, cameras etc
- storing equipment and possessions in secure places whenever possible
- avoiding unwanted attention

Crime Hot Spots

The researcher will avoid Nairobi suburbs of Mathare, Kasarani and Eastleigh and exercise caution when travelling within the city and its environs. I have the advantage of having extensive local knowledge and connections that will help me to identify and evade problem situations.

Other regions/areas cited to be crime hot spots but which the researcher does not intend to travel to research purposes include:

- National parks and game reserves
- North, north-eastern and western Kenya
- Borders with Ethiopia, Sudan and Somalia
- Borders with Uganda and Tanzania

Airline Safety

There are many international Airlines serving Africa and extending their air travel services to Kenya from Australia. These include Qantas, Emirates, South African Airline, British Airways, KLM etc. The major operators in Kenya are Kenya Airways, Fly 540, Jet Link, Air Kenya etc. These carriers are relatively safe. The researcher does not however anticipate air travel during the research period apart from flying to Kenya from Brisbane. Risks involved in air travel will be avoided by following standard protocols such as staying hydrated and walking/doing leg exercises to prevent deep vein thrombosis.

Natural Disasters, Severe Weather and Climate

There are two rainy seasons, from October to November and from March to June, when flash flooding is common. Roads may be impassable during these times. Kenya is subject to earthquakes. All oceanic regions of the world can experience tsunamis, but in the Indian and Pacific Oceans, there is a more frequent occurrence of

large, destructive tsunamis because of the many large earthquakes along major tectonic plate boundaries and ocean trenches.

The researcher will rely more on weather forecast by national and international media houses that relay fairly reliable information and take precautions whenever the media houses provide information regarding severe weather conditions.

Health Issues

Pandemic (H1N1) 2009 has spread throughout the world. Very few cases of H1N1 have been reported in Kenya and all were foreigners. I will ensure I have a comprehensive [travel insurance](#) that will cover any overseas medical costs, including medical evacuation, before you depart. The standard of medical facilities throughout Kenya varies but are adequate in urban areas, where I will be staying.

1. Project, Work and Equipment Details

Principal Academic Supervisor / Staff / Student / other parties involved - Name/s:

1. My Principal Supervisor is Dr. Angela Romano, Senior Lecturer, Journalism
2. Two research assistant/puppetry trainers

Others to be involved at the field level but are yet to be identified will include:

3. Between 8 to 12 children aged 8-12 years old per school will be involved in the puppetry activities.
4. Between 5 to 10 members of the school management (including a member of the parents-teachers association) will be invited to join the focus groups per school.
5. 2 to 4 officials from Ministry of Education, 2 to 4 Ministry of Public Health and Sanitation officials, 2 to 4 Ministry of Water and Irrigation officials, 1 - 2 United Nations Children Fund officials, 1 to 2 World Health Organization officials, 1 - 2 officials of the World Bank, and 1 - 2 officials of other leading civil society organization and the private sector will be interviewed.
6. 8 to 12 audience members, i.e. students who do not take part in the puppetry activities but who will watch the shows.

Estimated Commencement Date :

01/01/2011

Estimated Completion Date (or continuing) :

31/12/2011

External collaborators (other QUT Faculties and non-QUT parties):

None

Location(s) of work, eg field site, building, room, campus:

Nairobi City, Kenya

Equipment types involved, if any :

None

2. Hazards / Potential Hazards Identification List

Use this list to identify all hazards in the workplace, systems of work, equipment and substances used, to which anyone associated with the project may be exposed. This list is designed to assist in the identification of hazards but is not intended to be comprehensive or exhaustive. Indicate any other hazards in the space provided.

Once completed, transfer all identified risks that have been ticked off, to section 3 for risk assessment and control implementation.

Personal

- Manual handling
- Striking and grasping
- Slips/trips - footwear appropriate to task?
- Fixed posture for extended periods X
- Repetitive movements (e.g. on keyboard)
- Pressure (diving or altitudes)
- Heat or cold stress
- Interviews with participants X
- Working alone X
- Driving vehicles X

- Long distance driving in vehicles

- In home visits
- After Hours Work X
- Emergency situations X
- Aggression or violence by others X
- Sunlight exposure of UV radiation
- Excessive Noise e.g. Industry sites
- Sharps

- Animal attacks or bites e.g. dogs

Temperature

- High temperature materials
- Cryogenic (freezing) fluids

Mechanical

- Machinery / plant / equipment in motion
- Excessive Vibration
- Compression / tension of part
- Pressure equipment (high/vacuum)

Other Hazards

- Specify: Civil unrest, riots and terrorism threats

Potentially Hazardous Environments

- Hospitals / clinics / medical centres
- Industrial / manufacturing sites
- Roadside
- Farms and isolated or remote areas
- Working in confined spaces
- Working at heights
- Other potentially hazardous environments:
Specify _____

Specialised Equipment

- Mental or psychological stress

Electrical

- High voltage equipment
- Live electrical equipment

Fire and Explosion

- Flammable substances
- Explosives

Chemical / Hazardous Substances

- Toxic / hazardous substances
- Corrosive agents
- Solvents

- Generation of dusts, vapours, fumes etc

The use of Chemicals and Hazardous Substances must conform to the Workplace Health & Safety Regulation (1997) s87 to 114.

- These Regulations are met Yes No

The following additional headings have been devised by the researcher.

Support from the Government of Kenya and the World Bank

The researcher Rufus Eshuchi has consulted for the World Bank for the last four years. During this period, the researcher has acted as a technical advisor to the government of Kenya on water sanitation and hygiene program. The government through ministries of Public Health and Sanitation, Education, and Water have agreed to support this research. It is therefore expected they will extend any services requested by the researcher be it on matters related to security of all those involved in the study.

Emergency contact list

The researcher will carry emergency contact details with him at all times. The listed contacts will include my family, relevant government officials, QUT and other known, trusted colleagues in the World Bank.

Regular communication arrangement

The researcher will establish an agreed plan for regular communication with the family and authorised officers at the World Bank and ministries. Family or the officer will initiate action if a planned contact is not made. The family and the officer will be provided with relevant emergency contact details, including QUT. The principal academic supervisor at QUT will also be provided with relevant emergency contact details.

In summary, the researcher, Rufus Eshuchi, will be able to conduct his research in a culturally appropriate manner, which will enhance substantially his safety and security. The researcher's past behaviour, supportive local contacts, knowledge of Kenya, and understanding of the local language all stand to validate this claim.

Communication Plan

Describe your communication plans here and list all necessary contact details

3. Hazard Identification and Control

HAZARDS IDENTIFIED	LIKELIHOOD OF EXPOSURE Rare, Moderate, Frequent	CONSEQUENCES What can happen. Are the consequences low, moderate or extreme.	CONTROL MEASURES To reduce the risk: Elimination, substitution, engineering, administrative, PPE, altered work practices	Given the nature of the risks identified, specify the NAMES OF STAFF/STUDENTS H&S TRAINING RECEIVED, DATE OF TRAINING, for each staff/student where required
Working alone	Rare	Moderate	The researcher will strive to work in the company of his research assistants most of the time to avoid a situation where he is alone in the field.	
Driving vehicles	Frequent	Extreme	Avoid driving vehicles to the research sites outside working hours as that may pose a security threat	
Aggression or violence by others	Moderate	Moderate	Take precautions and travel in groups. Avoid exposing valuables	
Fixed posture for extended periods	Moderate	Extreme	Exercise frequently and avoid sitting long hour while working or travelling	
Repetitive movements (e.g. on keyboard)	Moderate	Moderate	Vary working hours and exercise frequently	
Interviews with participants	Frequent	Low	Most of my participants will be from organized groups with links to the schools	
After Hours Work	Rare	Extreme	Working after dark poses extreme danger in Nairobi. Strive not to work beyond sunset	
Civil unrest, riots and terrorism threats	Moderate	Extreme	Listen to news updates and avoid known locations where such incidents occur.	
High crime levels in Nairobi suburbs of Kibera, Mathare, Kasarani and Eastleigh	Frequent	Extreme	None of this areas fall within the research sites	
Active extremist groups	Rare	Extreme	Avoid areas that extremists target	
Protests and demonstrations as they may turn violent.	Moderate	Moderate	Researcher to avoid political meetings and demonstration.	
carjacking, kidnapping for ransom and home invasions	Moderate	Extreme	Take precautions both on the road and at home. If confronted by armed robbers or carjackers, cooperate as that minimises violence on victim.	
Pandemic (H1N1) 2009	Rare	Extreme	Authorities in Kenya are implementing a campaign on how to identify and handle pandemics.	
Airline Safety	Rare	Extreme	Will not travel by air while in Kenya. The researcher will select reputable airline for international travel	
Natural Disasters, Severe Weather and Climate	Rare	Moderate	Take precautions by following media reports closely.	

4. Health & Safety Documentation

Provide details of any health and safety documentation provided to staff and students engaged on this project (eg chemical safety manuals, laboratory manuals, MSDS).

None

5. First Aid

- Are appropriate first aid items available? Yes No
- Have first aid skills been acquired, if necessary? Yes No
- Has consideration been given to the requirement for after-hours first aid treatment? Yes No

6. Ancillary Staff

Have ancillary staff (cleaners, technicians) been provided with appropriate information relating to special health & safety requirements? Yes No x

If yes, what information was provided? :

N/A

Endorsements:

All staff and / or students who will be engaged on this project must sign this endorsement.

This project/work has been examined in consultation with the academic supervisor where appropriate, the Workplace Health and Safety Representative/Officer. The hazards associated with the work have been identified and the control measures where indicated have been implemented:

Principal Academic Supervisor involved:

Principal Academic Supervisor Signature _____ Date / /

Other Staff and / or students involved in the project / activity:

Name: Rufus Eshuchi
Date 29/06 /2010

Signature 

Name _____ Signature _____ Date / /

Name _____ Signature _____ Date / /

Name _____ Signature _____ Date / /

Once completed, this Health & Safety Risk Assessment of a Project, together with any other completed Risk Assessment forms as required and documents are to be returned with the application for research ethics approval for this project, to the Academic Supervisor/ Portfolio Director who will pass this form to the relevant person for Health & Safety Risk Assessment. Final approval is given by the relevant Head of Study (Undergraduate, Postgraduate or Research).

Endorsement by the Creative Industries Faculty, Health and Safety Committee:

Faculty Workplace Health & Safety Officer Endorsement:

Name _____ Signature _____ Date / /

5.1.1.1.1.1 Workplace Health & Safety Officer Comments:

Endorsement by the Head of Study:

Name _____ Signature _____ Date / /

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ⁱ Once the schools had been selected, the Chief Public Health Officer then wrote to the Director of Primary Education requesting him/her to authorize the project activities. I launched an application through the National Council of Science and Technology, which issued a permit to me with a copy to the Permanent Secretary, Ministry of Education. The Director of Education informed the Head teachers of the respective schools about the project, requesting them to cooperate with the research team and provide all the necessary support. The letters from the Director of Education were posted to the schools directly and the researcher informed. The schools management were willing to participate in the study as most of them had been sensitized on the benefit of handwashing activities. I avoided a situation where the school headteacher was ordered by their superior to host the project. Once the Head teachers received the letter, an announcement was made in school regarding the study