

Critical-Agency in ICT4D:

a case study of Zambian women's use of
participatory video technology
to challenge gender inequality

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Declaration of Authorship:

I, Tony Roberts, hereby declare that this thesis, and the work presented in it, is entirely my own. Where I have consulted the work of others this is clearly stated.

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Abstract:

Women in Zambia experience profound gender discrimination and disadvantage which constrains their development. This research provides a case study of Asikana Network, a women's group formed to tackle gender inequality in Zambia's male-dominated technology sector. It analyses their use of information and communication technologies for pursuing development goals (ICT4D) especially their use of 'participatory video'.

Some Southern scholars, including Paulo Freire and Amartya Sen have argued that in order for disadvantaged people to better self-determine their own development they need first to enhance their 'critical-agency'. This involves both their *critical* analysis of the root causes of the disadvantage that they experience, as well as their *agency* to act on those structures to transform their situation. This research analyses the concept of critical-agency and the use of participatory video to enhance it, drawing on the capability approach and critical feminist pedagogy. A participatory action research approach and a mixture of qualitative methods are employed, analysing data from films, interviews and focus groups.

Empirically the research addresses three gaps in the existing literature; it provides a case study of Zambian women's use of participatory video to enhance critical-agency; it identifies specific affordances of participatory video that enhance critical-agency, and it contributes methodological recommendations for critical participatory video practice. The research also makes conceptual contributions: in developing and defining the concept of critical-agency and its constituent elements; and by making some tentative recommendations towards a critical theory-practice of ICT4D characterised by an emancipatory practice and by a transformist intent.

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List of Abbreviations:

AAG	Association of American Geographers
ADBG	African Development Bank Group
APRM	African Peer Review Mechanism
FAO	Food and Agriculture Organization of the United Nations
GSMA	Groupe Speciale Mobile Associazione
HDI	Human Development Index
HRW	Human Rights Watch
ICT	Information and Communication Technology
ICT4D	Information and Communication Technologies for Development
IIED	International Institute for Environment and Development
ILO	International Labour Office of the United Nations
IMF	International Monetary Fund
KNEC	Kenya National Examination Council
MRG	Minority Rights Group
OECD	Organisation for Economic Co-operation and Development
OMCT	World Organisation Against Torture
PV	Participatory Video
STEM	Science Technology Engineering and Maths
UNCTAD	United Nations Council on Trade and Development
UNDP	United Nations Development Programme
UNESCO	United Nations Education Scientific and Cultural Organisation
UNHCHR	United Nations High Commission for Human Rights
WFP	World Food Programme
WHO	World Health Organisation
ZCSO	Zambian Central Statistical Office
ZICTA	Zambian Information and Communication Technology Authority

Chapter 1. Introduction

This research was motivated by, and focuses on, the work of Asikana Network, a women's group formed to tackle the profound gender¹ discrimination and disadvantage experienced by women in Zambia's male-dominated field of information and communications technology (ICT). This research focuses specifically on Asikana's use of the ICT of 'participatory video', a process in which a group of non-experts collectively produce films about development issues of priority concern to them.

Zambia faces a range of development challenges which are reflected in its Human Development Index (HDI) ranking of 141 out of 187. It is a land-locked post-colonial nation whose economy is heavily dependant upon mining and agriculture (as Chapter 5 elaborates in some detail). These development inequalities are unevenly experienced; Zambian women and girls experience greater systematic disadvantage relative to Zambian men and boys including in access to healthcare, underrepresentation at all levels of education (especially tertiary education), in paid employment and income (see particularly Section 5.5.3). As globalisation emphasises the importance of *The Network Society* (Castells and Cardoso, 2005), information and communication technologies (ICTs) represent a potentially powerful means to women's empowerment (see Section 2.1.3 below). However Zambia's emerging technology sector is heavily male-dominated, and as this research will show, it is currently a sector in which women are acutely underrepresented, discriminated against and systematically disadvantaged. It is

¹In this thesis I use 'gender' to refer to the socially-constructed attributes and opportunities associated with being male and female and the relationships between women and men and girls and boys. These attributes are learned through socialisation processes and are context / time-specific. Gender determines what is expected, allowed and valued in a women or a man in a given context. In most societies there are differences and inequalities between women and men in responsibilities assigned, activities undertaken, and access to and control over resources. Gender is part of the broader socio-cultural context and other important criteria of socio-cultural analysis, including class and race, intersect with gender.

in this context of multi-layered development (dis)advantage that the work of Asikana Network is of particular research interest.

Asikana Network describes itself as '*a group of females aiming to empower women in ICT related fields*' and lists amongst its principles '*participatory approaches to development, and the application of ICTs in development*'². In this research Asikana members use participatory video to make films about their own experience of gender injustice in Zambia's ICT sector, and to develop and articulate their agenda for change.

Participatory video has become a popular development practice in recent decades due to claims made regarding its efficacy as a tool for disadvantaged groups to investigate and to represent their issues themselves. In this research a particular type of *critical* participatory video practice was employed to enhance Asikana member's critical-agency³ for development. Here critical-agency refers to people's *critical* understanding of the (dis)advantage that they experience as well as their *agency* in acting together to overcome it⁴.

This research is fundamentally about whether Asikana Network's use of participatory video enhances the critical-agency of Zambian women to self-determine and pursue their own development goals. As such it is located within the wider field of information and communication technologies for development (ICT4D).

² For a self-definition of Asikana Network see for example <http://asikananetwork.org/sample-page/>

³ I hyphenate critical-agency to signify a unity of theory and practice in a praxis of both critique on action and action on critique. This position is elaborated in the literature review.

⁴ This understanding of critical-agency is derived from Freire's (1970) concepts of critical consciousness and agency, which are discussed in detail in Chapter 2.

1.1 Contributions

This thesis contributes to the existing literature by adding new knowledge, conceptual clarifications and methodological recommendations in several respects. There has, to my knowledge, been little qualitative research foregrounding Zambian women's experience of discrimination in the technology sector, or their self-organisation to overcome it. This research provides a case study of Asikana member's experience of disadvantage in the ICT sector, which includes new knowledge about the reproduction of unequal gender relations in Zambia's ICT sector and about women's agency in resisting it.

The thesis contributes conceptual clarification with regard to defining the constitutive elements of critical-agency, and the role ICT might play in enhancing it. This research also contributes new knowledge about the particular affordances of participatory video to enhance critical-agency for development. The term 'affordances' refers to the actionable properties of a technology, which *invite, allow or enable* a particular user action (Gibson, 1977; Norman 1988). Technological affordances are the theme of Section 4.7.

Finally, this research makes methodological recommendations for the critical practice of participatory video and offers some tentative recommendations towards a critical theory of ICT4D characterised by emancipatory practice and transformist intent. The following sections expand on this introduction by contextualising the evolution of the research design and questions, before then setting out the rationale for the remaining chapters.

1.2 The Empirical Issues

Meeting with Asikana Network was striking both because of the profound discrimination and disadvantage that their members routinely experience and also because of the formidable resolve and resourcefulness that they demonstrate in resisting it. I first met the founders of Asikana Network at an event at BongoHive in Zambia's capital city. BongoHive is Lusaka's 'technology and innovation hub'; a place where technology enthusiasts, experts and entrepreneurs meet to work on their latest projects; coding mobile phone applications, starting new technology ventures; and creating ICT4D projects. Africa's Tech Hubs had received a great deal of media coverage and I was concerned to learn more about them. There were only two women at the event; they were two of the co-founders of Asikana Network; one was employed in a commercial company as a software programmer and the other as an ICT support technician in an international development agency⁵. By contrast the other fifty people in attendance were all men. All of the BongoHive founders were men, as were all of their Board members and staff. Although BongoHive is a grant-funded organisation, I learnt that this gender composition was also typical of many of Zambia's commercial ICT workplaces. As the analytical chapters of this thesis will detail more fully, Zambian women and girls face systematic discrimination and disadvantage in the home, school and workplace in ways that severely constrain their freedom and development. Zambian girls are half as likely to complete secondary education as boys (ZCSO, 2015). Early withdrawal from education is often a result of early pregnancy and marriage (UNESCO, 2012) or due to girls being required to undertake domestic chores that have been gendered as women's work (ADBG, 2006). Zambian girls are especially under-represented as graduates in the

⁵ I do not name the two women here, even by their research pseudo-names, as it would then be possible to identify them from the descriptions given and then to identify their quotations in the thesis text.

'STEM' subjects of science, technology, engineering and maths (UNESCO, 2012). This disadvantage in educational attainment often translates into under-representation in high-reward workplace positions (Klaveren et al, 2009). Zambian women are under-represented in information and communication technology roles (ZCSO, 2015) especially in senior positions (ILO, 2012). Under-representation of women in the field of information and communication technologies is particularly problematic for women as this fast-growing sector is becoming key to many aspects of modern life (ADB, 2006). It would be possible to be overwhelmed by this situation, and to think perhaps that there was little that a small group of individuals could do to effect change, but Asikana Network members are practically engaged in social action to provide solidarity and to effect change.

Early in 2011, at my first meeting with Asikana founders I agreed to make a short promotional video for Asikana. At that time they had been organising the women's group for less than a year and had not yet constituted themselves as a legal entity. They were, however, active in organising technical training for women in basic computing as well as website and mobile applications programming. They already had almost one hundred members mainly between the ages of 18 and 23. I was interested to understand the nature of the discrimination that their members were facing from family members, teachers and employers when they expressed an interest in pursuing their interest in technology. I was also interested to learn more about how and why women were being systematically disadvantaged in Zambia's ICT sector and I wanted to understand how Asikana identified the causes of the disadvantage that women experienced in order to define their activities to overcome them. As a result I began formulating a research design and questions to reflect the experience and concerns of Asikana's founders, and

which would serve to elicit the views of their wider membership. My initial literature review revealed that there was no existing qualitative research about Zambian women's experience of gender inequity in the ICT sector, nor about their resistance to it. Given the injustice of the situation and the growing importance of ICTs as a key area of social and economic development, it seemed that the need for research in this area was compelling.

On my next visit to Zambia I facilitated a three-day process of strategic planning with Asikana's four founders at the end of which they requested that I teach a short course in digital film⁶ production for their members. Facilitating the strategic planning had increased my understanding of the founder's felt-needs and priorities; I wanted to use this understanding to inform the choice of initial themes on the digital film-making course. So when I returned to Zambia later that year I proposed to the founders that I facilitate a form of group film-making called 'participatory video'. This would involve Asikana members in making their own short films on subjects that reflected their shared interest in tackling gender discrimination in Zambia's ICT sector. I suggested that Asikana members could make films in which they aimed to answer questions such as 'Why are women under-represented in Zambia's ICT sector?' and 'What can be done to improve the situation?'. By this means it was possible to combine Asikana's practical interest in developing members' technical skills in digital film production with their strategic interest in tackling gender discrimination. I also proposed to Asikana's founders that I be given permission to carry out my doctoral research on the process, and to enrol some of their members as co-researchers using a participatory action research

⁶ The terms 'film' and 'video' are used interchangeably in this thesis. Both are anachronistic in this digital age as they refer to media no longer used to record and store images. However they remain in common usage and I am unaware of an appropriate and understandable alternative.

methodology. Their agreement made it possible to combine Asikana members' interest in learning film-making with the interest of Asikana founders in understanding members' diverse experience of discrimination in order to better inform their strategic planning. It also served my own interest to research how a technology like participatory video might enhance members' critical-agency for development. This then became my central research question: "Can Asikana Network's use of participatory video enhance members' critical-agency for development?" where the specific aspect of development in question was overcoming gender discrimination and disadvantage in Zambia's ICT sector. Subsidiary to this central question (RQ1) I wanted to understand whether any change was attributable to contextual, personal and methodological factors. That is to say I wanted to understand whether outcomes were influenced by the political, economic, social and cultural context, by personal competencies such as self-efficacy, and by technical and communication skills, or whether the particular participatory methodological approaches influenced outcomes. These concerns shaped the three subsidiary research questions below.

RQ1: Can Asikana Network use participatory video to enhance members' critical-agency to determine their own development?

SRQ1.1: What contextual factors influence outcomes?

SRQ1.2: What personal competence factors influence outcomes?

SRQ1.3: What methodological factors influence outcomes?

My initial literature review revealed that there was no existing case study of women's use of ICT4D to tackle gender (dis)advantage in Zambia's ICT sector. Flyvberg (2011) is

amongst scholars who argue that provision of exemplar case studies is important in grounding any academic discipline and the field of ICT4D particularly lacks case studies attentive to issues of gender representation and equity. In adopting a case study approach however it is important to acknowledge that Asikana is not a representative sample of any wider population and that therefore any findings are not *statistically* generalisable. However such a longitudinal case study, by analysing a specific phenomenon in depth, may produce new knowledge and theory that could prove to be *analytically* generalisable to other contexts (Glaser and Strauss, 1967; Yin, 1984; Flyvbjerg, 2011).

1.3 The Conceptual Issues

Posing the research question of whether Asikana Network's use of participatory video can enhance critical-agency for development immediately raises a number of conceptual issues including, but not limited to, what is meant by the terms 'participatory video', 'critical-agency' and 'development'? This section will briefly introduce and define these key concepts, each of which will be developed in greater detail in Chapter 2.

1.3.1 Human Development

According to President Nyerere of Tanzania, a fundamental flaw in the orthodox econocentric approach to development, was in “*thinking of development in terms of things, and not of people*” (Nyerere, 1973: 7). President Nyerere argued that, “*people can't be developed, they can only develop themselves*” (ibid) and he proposed a radically different normative approach in which 'development' should be understood as the 'bottom-up' process of enabling people to determine and to attain their own self-defined objectives (Esteva, 1992: 7). This agency-based approach was at the heart of Freire's

(1970) work in Brazil, as well as that of Orlando Fals-Borda (1979) in Colombia, and Rajesh Tandon (1981) in India, and constituted what Tandon (2008) claimed represented a distinctly Southern approach to development practice and research. This participatory approach to developing human capacity and intent, as opposed to economic output, called '*human development*' to distinguish it from orthodox economic development, was popularised in anglophone development studies, and practice by, amongst others, Robert Chambers (1983, 1997) and his colleagues at the Institute for Development Studies at Sussex University, and later extended and articulated by Amartya Sen (1999) as part of his 'capability approach'.

Amartya Sen (1999: 3) defines development as "*a process of expanding the real freedoms that people enjoy*", as well as "*the removal of major sources of unfreedom: poverty as well as tyranny, poor economic opportunities as well as systematic deprivation, neglect of public facilities as well as intolerance or over-activity of repressive states*". This approach to development is advantageous in that it is process-focused, relatively expansive, encompasses social justice and freedoms as well as individual material well-being, and cannot be confined to an econometric understanding of development as income per head.

1.3.2 Critical-Agency

Prior to this research I had practitioner experience of the application of information and communication technologies for development (ICT4D) extending back to the 1980s. During this time I had experience of, and was myself responsible for a range of 'sub-optimal' ICT4D outcomes, as well as for some relative successes. My motivation in returning to study included a desire to reflect more critically, and to study in more depth,

whether and under what conditions ICTs might advance development. My professional experience had prompted a keen interest in the themes of agency and participatory approaches, which had been enthusiastically promoted in the 1990s but were subsequently critiqued by Cooke and Kothari (2001) amongst others. When I reviewed the literature in this regard it became clear that Paulo Freire's (1970) twin concepts of critical consciousness and agency (later shortened to 'critical agency' by other scholars of critical pedagogy) had provided part of the theoretical underpinning in all of the foundational texts on participatory video (Shaw and Robertson, 1997; Braden and Huong, 1998; White, 2003; Lunch and Lunch, 2006).

The literature review also revealed that Amartya Sen, having turned to agency in the 1980s (Sen, 1985) and turned to participation in the 1990s (Sen, 1999) had now turned to 'critical agency'. Dreze and Sen (2002, 2013) argue that increasing women's agency is insufficient for tackling gender discrimination and injustice, and that 'critical agency' is necessary to enable women to effectively question and reassess the prevailing gender norms and values. This is important in this research, as later chapters will illustrate, in that there are several senses in which Zambian women themselves play key roles in (re)producing unequal gender relationships through their *uncritical* agency. Critical-agency is the ability of individuals and groups to *critique* their social circumstances in a way that informs their *agency* in acting to overcome it. Dreze and Sen (2002: 233) make a convincing case that “*critical agency is important in combating inequality of every kind*” and that it is therefore 'pivotal' to human development.

If we are to take this claim seriously then having a clear conceptual understanding of critical-agency, its constituent elements and mechanisms for enhancing it, is key. Dreze

and Sen do not define critical-agency, nor do they elaborate its contents, or explain how disadvantaged people might go about enhancing their critical-agency for development. A broader literature review did not surface any shared understanding about the definition of critical-agency or exploration of its constituent elements. This presents a theoretical problem for ICT4D and a methodological problem for my research. The theoretical problem for ICT4D is that, if we are to take seriously Dreze and Sen's (2002) claim that critical-agency is central to development, then we need to be able to define it and to understand the relationship between ICT and critical-agency, and between critical-agency and development. There is a gap in the existing literature in this regard, which this research sets out to address.

The methodological problem for my research was: how is it possible to establish evidence about the individual elements of critical-agency in the absence of clarity about what exactly constitutes critical-agency? Or put another way 'How would we know critical-agency if we bumped into it?' To overcome this problem I used the existing literature (as detailed in Chapter 2) to construct a working definition of critical-agency as, *“peoples' ability to critique experienced inequality and act together to overcome it”*. I produced a provisional list of six constituent elements of critical-agency as: reflection, engagement, dialogue, intent, voice and action by drawing upon the existing literature on agency and participatory video. This list was produced by means of a review of the literature on Sen and Freire's conception of critical agency (See Section 3.4.1) as well as the existing literature on participatory video (See Table 7). This provisional list enabled the development of the following research questions, which were designed to detect whether these elements were in fact evident in this case study, and whether they were attributable to affordances of participatory video.

RQ2: In the case of Asikana Network, does participatory video enhance critical-agency evidenced as the ability to:

SRQ2.1 **reflect** critically upon the status-quo

SRQ2.2 **engage** critically with issues of structural injustice

SRQ2.3 **dialogically analyse** experienced injustice

SRQ2.4 form joint **intent** to act for valued change

SRQ2.5 **voice** dissent on the above

SRQ2.6 **act** in pursuit of valued change

These six elements of critical-agency are illustrated in Figure 1 below.

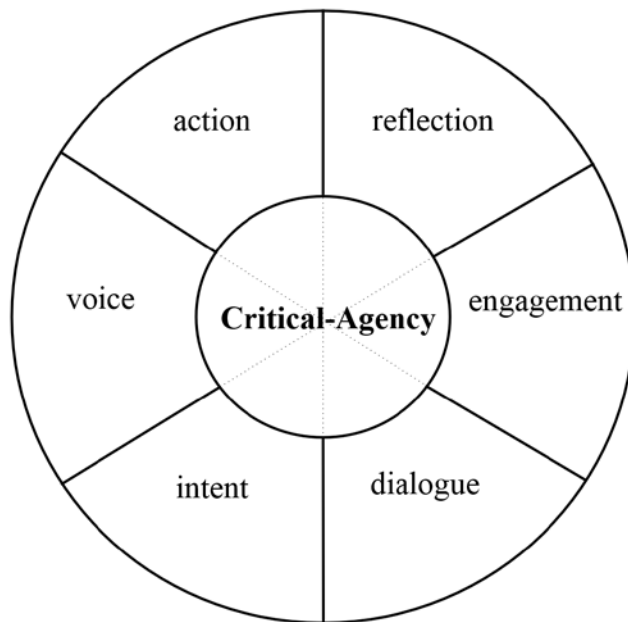


Figure 1. Provisional Elements of Critical-Agency (source author)

In fact not all of these six provisional elements were later evidenced in the empirical research. The research data did, however, identify another constituent element of critical-agency that I had not anticipated in this provisional list. The research process also clarified the nature of the 'critical' element in critical-agency and this required a further revision of the elements of critical-agency from those illustrated in Figure 1. The resulting revised list of contents for critical-agency (illustrated in Figure 21) is a conceptual contribution of this research upon which future research may build.

Having introduced human development and the concept of critical-agency, the following section defines participatory video, the final core concept embedded in the research question of 'whether participatory video can enhance critical-agency for development'.

1.3.3 Participatory Video

The term 'participatory video' has no commonly agreed definition (Salazar and Dagon, 2009). It has been used to describe a range of quite distinct practices, and some uses of video that closely resemble participatory video are not described as such (High et al, 2012). It is broadly-speaking a process of involving people without prior film-making experience in making films about issues of importance to them, from their own perspective, often initiating a process of analysis and change (Lunch and Lunch, 2006). Shaw and Robertson (1997: 26) characterise participatory video as, "*a process of media production to empower people with the confidence, skills and information they need to tackle their own issues*".

In this research participatory video was used to create a space for women to critically reflect and deliberate upon their experience of gender disadvantage in Zambia's male-

dominated ICT sector. Film-making was combined with dialogic workshops designed to involve Asikana Network members in the self-identification of the root causes of the gender (dis)advantage that they experienced. Their films produced generative themes⁷ that stimulated intense discussion amongst participants about what factors limited or enabled their freedom and agency, and informed their alternative visions of valued



Figure 2. Reviewing footage (photocredit: author)

development. In this context I found apt the definition of participatory video developed collectively by the practitioners of PV-NET (2008). My only refinement to their wording is the addition of the word 'critical' to their original formulation, which describes participatory video as: *“a collaborative approach to working with a group or*

⁷ Generative themes, in Freirian processes, are cultural or political topics of central concern or importance to participants, which can generate group discussion and critical dialogue (Riddell, 2001)

community in shaping and creating their own film, in order to open spaces for [critical] learning and communication and to enable positive change and transformation". In the next section I outline how the remaining chapters will analyse these core themes.

1.4 Structure of this Thesis

In Chapter Two I will present the literature review for this research and elaborate the theoretical framework for this thesis. I use as a normative framework Amartya Sen's (1999) conceptualisation of human development as an agency-based process characterised by the expansion of freedoms and the removal of unfreedoms. I also use his concepts of 'adaptive preference' and 'critical-agency' as a point of departure to ask how, in practical terms, can critical-agency be enhanced to overcome constraints on development? However as Sen pays no sustained attention to structural power interests⁸ (Zheng and Stahl, 2011) or to the promotion of collective, rather than individual, capabilities and action (Kabeer, 2003), I therefore also draw on the literature of critical theories, particularly critical feminism and critical pedagogy, as a guide to enable disadvantaged people themselves to critically analyse the structural constraints on their freedom and development, and to act collectively to overcome them.

In Chapter Three I outline my research methodology. I explain the choice of participatory action research and participatory methods and my use of qualitative methods. My research approach was designed to enable Zambian women to determine questions for their own investigation of gender inequality in the ICT sector and to produce their own films about issues of concern to them. Dialogue-based processes, including participatory workshops and focus groups, were used to share knowledge

⁸ These concepts are elaborated in the literature review section 2.2.5.

amongst participants, and with Asikana's founders, in an attempt to avoid 'extractive' research in which the data is taken away to benefit the foreign researcher (Fals-Borda, 1998; Fals-Borda and Rahman, 1991) or is written up solely for the literature (Walsham and Sahay, 2006). Asikana Network members used participatory film-making, alongside dialogic workshops to produce new knowledge and understanding about the position of women in Zambia's ICT sector. Film narrative, semi-structured interview and focus group data was transcribed and input to qualitative analysis software for later interrogation. I also introduce Buskens' (2014) framework for research in gender and development in Chapter 3, which I later re-purpose as a tool for use in ICT4D practice.

Based on the premise that research data cannot adequately be interpreted when divorced from the social, economic and cultural context that shapes it, Chapter Four analyses the national context of this research. Zambia's history of colonialism and liberation, its specific and situated forms of (re)producing gender relations, and the ways in which they intersect with 'race-ethnicity'⁹ and class-caste¹⁰ to structure the freedoms and

⁹ In this thesis I use the convention of placing 'race' in single quotes to acknowledge that despite its central importance as a category of social analysis, the concept has no basis in biology (Rodney, 1972) and is a social construct invented to justify slavery and the imperial domination of 'othered' people (Said, 1978). Despite being rendered invisible in most accounts of development, Goudge (2003) and Wilson (2012) are amongst those to document the many ways in which race and racism shapes international development. In this thesis I also use the term 'race'-ethnicity to include consideration of the social constructs of ethnicity that distinguish between Zambians considered to be of the same 'race' but from different 'tribes'.

¹⁰ Few concepts have been more fundamental to social theory than class - or more contested (Wright, 2003) leading some to suggest that it is an 'essentially contested' concept (Gallie, 1964) upon which consensus may never be reached. Whilst reviewing these debates is ultimately beyond the scope of this thesis I do accept class as a significant category of social analysis that highlights unequal social relationships. Oxfam (2014) research shows that the economic power of the top 1% globally has grown in recent years, as has reliance of the poorest on food banks and on food aid. For the purposes of statistical analysis class is routinely reduced to graduated income categories, but this serves to make invisible the inherent contradictions that are explanatory of unequal social relations and which are at the same time the basis for emancipatory transformation (Wright, 2003). Marxist scholarship emphasises the antagonistic relationship to the means of production and to capital as definitive of class, whereas Bourdieu (1987) has alternatively emphasised social and cultural capital. Class has been rendered invisible in most ICT4D but was referred to by participants in this research. When I aim to be inclusive of (primarily) Asian variations I use the term 'class-caste'.

constraints experienced by women in Zambia's ICT sector.

Chapter Five addresses the theory and practice of participatory video as it relates to critical-agency for development. This chapter introduces the particular affordances of participatory video practice as they relate to the enhancement of specific constituent elements of critical-agency.

In Chapters Six, Seven and Eight I use Buskens' (2014) categories of 'conformist, reformist and transformist' as an ordering device to present my analysis of Asikana's use of participatory video and other ICTs to tackle gender discrimination. Given that the terms 'conformist' and 'reformist' have a pejorative interpretation in colloquial use in some contexts, it is worth being clear at the outset that in this thesis their use is entirely descriptive. As will be clear from the following chapters, I argue that we have reason to value conformist and reformist activities and that they are often essential prerequisites and companions of transformist activities. Chapter Six analyses elements of Asikana activities that can be considered to be 'conformist', according to Buskens' categories, in that they intend to enable women to better cope with existing unequal gender relations, rather than setting out to change them. Chapter Seven examines elements that can be considered 'reformist' in that they aim to change gender relations but not to challenge the determining power interests. Chapter Eight assesses Asikana activities that can be considered 'transformist' in that they aim to change both unequal gender relations as well as tackling power interests. In Chapter Nine I conclude by directly answering the research questions, restating key findings, drawing some overall conclusions and offering some tentative suggestions for a critical ICT4D field that is emancipatory in its practice and transformist in its intent.

Chapter 2. Theoretical Framework

This chapter reviews the existing literature in order to arrive at a theoretical framework with which to analyse Asikana Network's use of participatory video to enhance their critical-agency for development. The first part of the chapter locates the research within wider debates about international development, ICT4D, and Gender and ICTs. The second part reviews Amartya Sen's capability approach as well as critical theories of the Frankfurt School, critical pedagogy, and critical feminisms in order to establish a conceptual understanding of critical-agency and other components of my theoretical framework. In the third part of the chapter I conclude by explaining why I use the capability approach as a normative framing of human development, but rely upon critical theories for analysis of structural power interests and as a practical guide for development action.

2.1 Introduction

In response to the critique that ICT4D scholars often base their work on uncritical assumptions about the relationship of ICT to development (Avgerou, 2010) and that they regularly fail to clarify their theorisation of development (Walsham and Sahay, 2006; Walsham, 2013), I begin by situating this research within the broader fields of international development, ICT4D, and Gender and ICTs.

2.1.1 Concepts of Development

According to Fuentes-Nieva and Galasso (2014), the 85 richest people on the planet have the same total wealth as the world's poorest 3.5 billion people. Whether such economic inequality is desirable is contested. Neo-liberal theorists including Hayek

(1976) and Friedman (1980) have argued that inequality of income is desirable and productive of economic growth. Brittan (1996) and Buck (1975) argue that inequality is inevitable and functional. However Stiglitz (2012) and the UNDP (2014a) claim that, beyond a certain threshold, inequality harms economic growth and the quality of social and political engagement. Roemer (1993) and Van de Gaer (1993) are amongst scholars who claim that inequality is a matter of social justice; they make this claim by demonstrating that inequality is determined by circumstances beyond the scope of individual responsibility, such as a person's gender, 'race', and class. Despite these different positions, most people concede that some form of financial redistribution and technology transfer is desirable in order to correct distributive injustice (UN, 2009). There is however little consensus about how such development should be achieved. Orthodox development teleologies, derivative of Bentham (1789) and Mill (1879), argued that the way in which a more equitable redistribution is achieved is irrelevant (ends always justifying the means). However heterodox approaches, including the 'human development' approaches of Freire (1974), Chambers (1983), and Sen (1999), emphasise the importance of people's agency and the *process* of development (the means as well as the ends), asserting the normative position that development ought to enable disadvantaged people to determine their own development. This research, convinced by the latter position, is based on a normative theorisation of development which aims to enable disadvantaged people to be the principle authors, architects and arbiters of projects designed to pursue their own conceptions of the good.

As discussed in Chapter 1, this heterodox approach of 'human development' emerged in the global South in opposition to orthodox models of economic development advocated by multilateral institutions such as the World Bank. According to Tandon (2008) this

'distinctly Southern approach' involved projects aimed not at boosting economic output, but at developing the human capacity and intent of disadvantaged people to manage self-determined change. The intellectual influences of human development include the practices of Paulo Freire (1970, 1974) which were popularised in anglophone countries by Roberts Chambers (1983, 1997), and more recently the work of Amartya Sen (1999). Section 2.2 will introduce some of its core concepts, on which this research later draws.

2.1.2 ICT for Development

The field of information and communication technologies for development (ICT4D) is an inter-disciplinary field at the intersection of international development, information systems and science and technology studies. The research field of ICT4D is concerned with understanding whether, to what extent, and under which circumstances, the use of Information and Communication Technologies (ICTs) can be productive of development. Whether ICT can foster development is contested. Some scholars claim that ICT leads, more or less unproblematically, to development (Friedman 2005; Sachs, 2005) whilst others argue that ICT should not be considered a development solution (Ya'u 2004; Pieterse 2010). Between these poles scholars are increasingly focused on identification of those factors contributing to, or inhibiting, the positive contribution of ICT to development (Heeks 2009; Unwin, 2009; Walsham, 2012; Kleine, 2013).

The term 'ICT4D' is often used to refer indiscriminately to the use of any information or communication technology applied for any purpose in the field of socio-economic or human development. Such a definition is too vague for the purpose of this research. Kleine and Unwin (2009: 1050) have argued in favour of the term ICT4D by claiming that the '4' *“forces users of the term to confront the moral and political agendas*

associated with 'development'. By focusing on the '4' we are forced to make explicit what we mean by 'development'". Accordingly rather than using the term ICT4D to refer to any use of ICT in Development, in this research I will reserve the term to refer to interventions where ICTs are used with the conscious intent of achieving a specific social justice or human development outcome i.e. ICT for Development.

Whilst technology is often attributed deterministic power, Kentaro Toyama (2010, 2015) has argued effectively¹¹ that technology cannot, in itself, effect change; it can only amplify existing human capacity and intent¹². Dictionary definitions of technology distinguish between technology-as-artefact and technology-as-process. In the former sense the term information and communication technologies (ICTs) can refer to a range of digital devices including computers, mobile telephones, or software systems. In the latter sense ICT refers to the process of applying devices, knowledge and other human resources in order to solve human-defined problems. In this research, where the task is to answer whether Asikana can use the ICT of participatory video '4D', the latter process-oriented definition, with human capacity and intent at its core, is more appropriate. Given the situated nature of this research within an agency-based theorisation of human development, for the purposes of this research, I will define ICT4D as, *"people's application of digital technologies, knowledge and human resources to achieve their self-defined development goals"*.

¹¹ Drawing on Agre's amplification thesis (1998, 2002)

¹² It is also important to note that whilst the use of technology may amplify intent it will also have unintended consequences (Ali and Bailur, 2007).

2.1.3 Gender and ICTs

Initially neglected within ICT4D research, gender is increasingly acknowledged as an important category of social analysis in the field (Primo, 2003; Gurumurthy 2004; Hafkin 2012). In most societies, women's ability to benefit from ICTs is constrained by unequal gender relationships. I use the term gender in this thesis to refer to '*the unequal roles and relationships between women and men that are socially constructed and have no basis in biology or sexual characteristics*' (FAO, 1997). The work of Asikana Network to address gender inequality in Zambia's male-dominated ICT sector forms the central case study provided by this thesis. This section will review the existing literature on gender and ICTs with regards to Asikana's stated intent to use ICT to tackle gender inequality¹³.

Information and communication technologies are potentially powerful means to women's empowerment¹⁴ and for gender equality (Primo, 2003; Gurumurthy, 2004; Bonder, 2011; Buskens, 2015). However realising this potential can prove elusive in part due to women's unequal access to, and ability to make effective use of, ICTs. Despite the challenge of a lack of gender disaggregated data (UNCTAD, 2014) there now exists a substantial and growing body of evidence that women are disadvantaged in almost every way that it is possible to analyse ICT: as owners of technology, as founders of technology companies, as holders of senior technology roles, and as students of technology (Primo, 2003; Gillwald, 2010; Deen-Swarray, 2013).

¹³ Asikana principles from organisational website <http://asikananetwork.org/sample-page/>

¹⁴ I take the use of the term empowerment by these authors to be consistent with Alkire's (2005) definition of empowerment as 'increase in agency over time', and with Malhotra's (2002: 8) view that 'agency is the essence of women's empowerment'.

This is partly because girls and women are routinely channelled away from studying maths and science (Wajcman, 1991) and discouraged from employment in technical fields. Securing gender equity in ICTs is problematic throughout the world but these challenges are nowhere greater than in Africa (Hafkin, 2002). Cultural stereotypes and financial pressures mean that girls are often forced to leave school earlier than boys (ZCSO, 2009; UNDP 2014; Buskens 2015) and many maths and science teachers (who are predominantly male) hold the views that girls can't think scientifically and that science is too technical for girls (Quaisie 1996). The results of this include the under-representation of girls and women in technology education and employment, and the gendered construction and reproduction of technology practices as masculine (Cockburn, 1985; Wajcman, 2004). The relatively few women who do secure employment in the technology sector experience a gendered division of labour where women occupy roles with lower salaries and promotion prospects relative to men (Buskens, 2015). This is highly relevant to this research because, as subsequent chapters will demonstrate, Zambian women experience under-representation in the ICT sector due to institutionalised discrimination and structural disadvantage. This research will analyse the social construction of gender in Zambia, discrimination faced by women in the ICT sector, and analyse the forces determining this situation.

Women's access to ICTs is necessary but insufficient to realising equity in gender and ICT (Primo, 2003; Buskens, 2009; Gillwald, 2010). Gillwald (2010: ii) is amongst those to conclude that, *“gender inequities in access to and usage of ICTs cannot be addressed through ICT policies per se ... many of the barriers for women, however, relate to cultural norms and practices that are difficult to legislate away”*. According to Gurumurthy (2004: 46) the information and communication technology sector is

organised along, “*patriarchal, techno-centric, non-democratic lines and based on capitalist values*”, with the result that tackling unequal gender relationships within technology, is not simply about women's access to technology, it is necessarily about tackling the vested power relations that give rise to and sustain gender disadvantage in technology relations (Buskens, 2014, 2015). This research will involve Asikana members themselves in a process of critically assessing the structural causes of unequal gender relations and will analyse whether ICTs can assist the organisation in achieving its development aims.

Having now situated this research within wider debates on international development, ICT4D, and Gender and ICTs, in the next section I will review the literature on Amartya Sen's 'capability approach' to development, as well as the critical theories of the Frankfurt School, critical pedagogy and critical feminisms. This will allow me to establish my core concept of critical-agency, and the theoretical framework for the rest of the thesis.

2.1.4 Structural Power Interests

As I often refer to 'structural power interests' in this thesis it is necessary to define the term, which I will then elaborate in later chapters. Walsham and Sahay (2006) argue that “*power is endemic and crucial to all activity, and thus must be addressed by the interpretive researcher*”. In this thesis I use the term 'structural power interests' most often to refer to patriarchal¹⁵ power securing men's interests relative to those of women

¹⁵ Patriarchy means literally power of the father and refers to the structural power interests of men in relation to women.

by virtue of control over key social structures¹⁶. Power is an “essentially contested” concept according to Lukes (1974) meaning that decades of academic research and debate have produce no consensus about its constitution or workings. Ultimately it is beyond the scope of this thesis to adequately cover the range of literature on power, but here I locate the approach to power in this research within the wider literature. Power, put simply, is the ability to influence or control people or events (Lukes, 1974). One use of power is to secure particular interests over those of others (ibid), where 'interests' refer to the needs, preferences, goals, and demands that individuals or groups have reason to value and to pursue (Jonasdottir, 1990). Social structure refers to elements of enduring social arrangements that both result from human agency and in turn determine it (Giddens, 1984). Examples of micro-level structures include discourses, norms and values, expectations, dispositions and meanings (Bourdieu, 1984). Meso-level social structure includes the institutional systems of education, media and religion (Althusser, 1971). Elements of social structure at the macro-level include the economic and legal system and stratification systems along the lines of nation, gender, 'race' and class. From a structuralist perspective, control of structure is often understood as a means to effect power and secure particular interests (Althusser, 1971; Gramsci, 1971). Control of structure is also what Steven Krasner (1985: 14) calls meta-power, i.e. the power “to change the rules of the game”, and is the basis of the Marxist view of hegemonic power (Gramsci, 1971). With the hegemonic power that control over structure makes possible, Krasner (1985) argues, that dominant groups may allow piecemeal reformist gains, safe in the knowledge that their ability to change the rules of the game ensures that their structural power interests are never under any real threat. In my research I draw on

¹⁶ As discussed later in this chapter neither men nor women are unitary categories and both women and men have interests other than gender interests, including amongst others interests derived of their class and 'race' position (Molyneux, 1985)

structuralist understandings of power relations but as modified by scholars including Friere (1990), Bourdieu (1984) and Giddens (1984) to produce a mutually constitutive understanding of agency and structure. It is this understanding that opens up the practical possibility for an agency-based process of social action to tackle structural constraints experienced by disadvantaged groups. In my research the members of Asikana Network who are organised to address the male-domination of Zambia's ICT sector, use their critical-agency to tackle structural constraints on their freedom to enjoy equitable development.

2.2 Sen's Capability Approach

In his influential book, *Development as Freedom*, Amartya Sen (1999: 18) argues that the evaluation of individual advantage should not be confined to how 'well off' someone is but should include consideration of their 'well-being' and agency. Sen argued for a comprehensive assessment of individuals' "*freedom to do the things one has reason to value*". This conceptualisation of 'development as freedom', Sen (1985) argues, is achieved both by the removal of various types of unfreedoms, such as poverty, tyranny, and social deprivation; as well as by enhancing people's individual 'well-being freedom' and wider 'agency freedom', concepts defined and elaborated below. Key features of Amartya Sen's approach to development (1999) and social justice (2009) include the claim that an individual's agency (not just their well-being); and their capabilities, (not just their functionings) are essential to an adequate evaluation of development. Based on these conceptual distinctions, Sen makes a convincing case that an alternative evaluation of development therefore requires an informational basis beyond indicators of income and well-being alone, to include agency and capabilities. These concepts are defined and elaborated in the following sections.

Sen's (1985) early approach to development originated as a philosophical critique of orthodox development economics and its reductive evaluation of poverty, development, and distributive justice through the proxy measurement of income. Sen (1987) was amongst scholars who argued that many aspects of human well-being, such as good health and political freedom, are non-commensurate with, and irreducible to, income. He argued that a comprehensive evaluation of an individual's advantage required a wider informational basis than income, and for the inclusion of other indicators of development advantage including education and health. Working with Mahbub ul Haq and others at the United Nations Development Programme (UNDP) he co-developed the multidimensional Human Development Index (HDI), which successfully expanded the informational basis that the UNDP uses to evaluate development.

Having successfully argued that the informational basis of development evaluation should be expanded beyond income, Sen (1985, 1999) went on to suggest that it should be further extended to include a consideration beyond culmination outcomes, of process freedoms, which he referred to as 'capabilities' and 'agency'. These terms are explained in the following two sections.

2.2.1 Capabilities and Functionings

In Sen's (1999: 75) lexicon '*functionings*' are the already achieved elements of an individual's well-being, such as levels of health, education, and income, whereas '*capabilities*' are "*the alternative combinations of functionings that are feasible for her to achieve*". Both functionings and capabilities refer to an individual's personal well-being. Whilst measurement of a person's functionings is a necessary part of development

evaluation, Sen (1999) argues that it is insufficient for reaching a comprehensive evaluation of an individual's advantage. Sen claims that measuring achieved 'functionings' reveals nothing about the substantive opportunities or '*capabilities*' that an individual may have at their disposal; two people with the same achieved functionings might actually have radically different capabilities. Sen (1985) uses the example of two starving people to illustrate this point. One person is starving as a result of fasting for religious reasons, retaining the capability of being fed whenever they choose; a second person is starving due to poverty, and lacks the capability of being nourished. This illustrates Sen's argument that reliance on measuring people's functionings alone provides an insufficiently comprehensive account of an individual's state of development (or put otherwise: the substantive freedoms available to them). For Sen (1999), a comprehensive evaluation of individual well-being makes necessary a consideration of both the substantive freedoms that a person has (capabilities) as well as their achieved functionings.

By way of critique it is worth noting that while Sen (1985, 1999) insists that an adequate accounting of development requires an evaluation of capabilities as well as functioning, the HDI indicators developed for the UNDP (and most evaluative applications of the capabilities approach to date) measure only achieved functionings.

I use Sen's model of human development as a normative framework for my research as I am persuaded that people have reason to value aspects of well-being and agency beyond income and wealth, and of the need to view disadvantaged people as "*active agents of change rather than as passive recipients of dispensed benefits*". My research will seek to involve members of Asikana Network as active agents in researching the

discrimination and disadvantage that they experience, and will facilitate dialogue to identify the 'unfreedoms' constraining their (development as) freedom to participate on equitable terms with men in Zambia's ICT sector. The next section builds on these themes by highlighting the role of agency in the capability approach.

2.2.2 Sen's Turn to Agency

At the most basic level 'agency' is the ability to act in the world, however the concept is contested and a multitude of definitions exist (Ibrahim and Alkire, 2007; Alkire, 2008; Sammam and Santos, 2009). Within the context of international development, Robert Chambers (2005: 203) defines agency as *'the ability to act and change the world'*. However this does not address the issue of whether such development is in a positive or negative direction. People have different ideas about what constitutes 'good change' (Chambers, 1997) which reflect their different values and commitments. In considering these different 'conceptions of the good' we enter the contested terrain of normative ethics. In defining what change in the world our action is directed at - setting what Burchardt (2009) calls *'agency goals'* - we evidence what we value doing and being. So we might define agency as *'the ability to act on values'* (Klein, 2011) or as Sen (1985: 206) puts it *"what a person can do in line with his or her conception of the good"*. Agency, when understood in this way, implies a theory of change¹⁷ in that action is linked to intent to produce valued change.

¹⁷ James (2011) defines a theory of change as, "an ongoing process of reflection to explore change and how it happens – and what that means for the part we play in a particular context, or group of people." Funnel and Rogers (2011) make a distinction between a Theory of Change and a Theory of Action, stating that the former is 'the central processes or drivers by which change comes about for individuals, groups, or communities' and the latter 'the ways in which programs or other interventions are constructed to activate these theories of change'. By combining James' sense of critical reflection with Funnel and Rogers' distinction between wider social processes and development interventions we arrive at the sense in which theories of change are viewed in this thesis.

Sen (1985) points out that the change in the world that individual's value often includes agency goals not related to their own well-being. In his Dewey Lectures, Sen (1985) critiqued the model of the individual implicit in orthodox development economics. Sen argued that individuals cannot be reduced to utility-maximising calculators of self-interest, arguing effectively that individuals regularly use their agency to prioritise *other-regarding* and de-ontological goals, even when doing so may have negative effects on their own well-being. Sen (1985: 186) makes the point that “*people have aspects other than well-being, not all their activities are aimed at maximising it*”. Not previously a focus in his work, Sen (1985: 207) now argued for recognition of “*the intrinsic importance of agency*” in development, putting this 'agency-aspect' of human development at the centre of his writing and distinguishing it from the well-being aspect of personal advantage.

In his Dewey Lectures, Sen (1985) introduces a four-fold distinction not just between well-being achievements (functionings) and well-being freedoms (capabilities), but also between agency achievements and agency freedoms. Whilst *well-being freedoms* are necessarily tied to a person's self-regarding advantage, a person's *agency-freedoms* might have no impact or even negatively impact on their own well-being. Sen gives the example of an individual who, to save a drowning person, discards their lunch to jump into a cold river. It may be that as a result of exercising their agency freedom an individual's personal well-being is reduced. Agency-freedoms may include a range of other-regarding or de-ontological goals such as moral obligations and sense of duty, a full evaluation of which requires an understanding of a person's general conception of the good (Sen, 1985).

Crocker and Robeyns (2010) represent Sen's four-fold distinction between agency and well-being, and between freedoms and functionings, diagrammatically in Table 1. below. The diagram is useful in illustrating that, for Sen, both agency and well-being have two dimensions: actual achievements and the freedom for those achievements (Crocker, 2008). Sen argues that both achievements and freedoms can be either *other-regarding*, (altruistic or de-ontological) or *self-regarding* in relation to personal well-being. The table also re-emphasises that Sen's concepts of capabilities and functionings are concerned exclusively with personal well-being.

	Agency	Well-Being
Achievement	Agency Achievement	Well-Being Achievements (Functionings)
Freedom	Agency Freedom	Well-Being Freedoms (capabilities)

Table 1. Agency and Well-Being (source: Crocker and Robeyns, 2010)

Crocker and Robeyn's diagram however has the disadvantage of creating the impression that Sen's four categories are mutually exclusive, whereas in fact the categories overlap in various ways. Sen (1985: 205) argues that, "*a person's agency achievement refers to the realization of goals and values she has reason to pursue, **whether or not** they are*

connected with her own well-being". So agency achievement, according to Sen, encompasses the categories of both well-being achievements (functionings) as well as other-regarding agency achievements. Sen goes on to define agency-freedom as:

*"What the person is free to do and achieve in pursuit of **whatever** goals or values he or she regards as important. A person's agency aspect cannot be understood without taking note of his or her aims, objectives, allegiances, obligations, and -in a broad sense- the person's 'conception of the good'".*

Sen (1985: 203)

According to this account a person's agency-freedom therefore encompasses whatever a person regards as important in line with their conception of the good, whether or not it relates to personal well-being or to other-regarding goals, and whether or not it is an achieved or substantive freedom. Sen's concept of agency-freedom then entirely encompasses the other three categories in Crocker and Robeyn's table. Whilst it is relatively well understood that functionings (well-being achievements) are only a sub-set of an individual's full capability set (well-being freedoms), it is less well understood that capabilities and functionings are themselves only sub-sets of a person's wider agency-freedoms. Yet Sen (1985: 206) states clearly that "*agency freedom can be seen as incorporating well-being freedom, inter alia*". In order to illustrate these overlapping categories in Sen's conceptual universe I have created Figure 3. (below).

Sen (1985: 205) divides his conceptual universe between '*the well-being aspect and the agency aspect of persons*'. In Figure 3. the well-being aspect is represented in the left-hand side of the diagram and the agency aspect in the right hand side of the diagram.

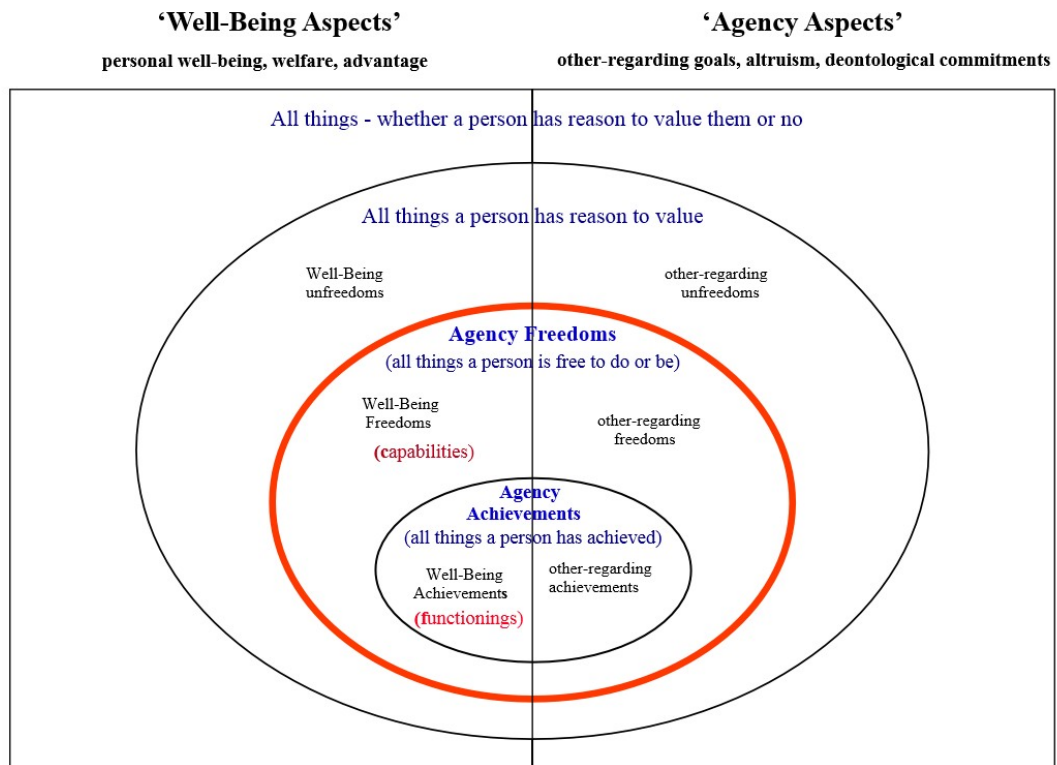


Figure 3. Diagram of Sen's Ontology (source: author)

The concentric circles provide an alternative perspective from which to view Sen's conceptual framework. The smallest of the concentric circles in the diagram represents an individual's agency achievements, which are divided into self-regarding well-being achievements (functionings), and other-regarding, altruistic or deontological achievements. The next largest circle illustrates a person's agency freedoms, which are also divided into well-being freedoms (capabilities) and other-regarding freedoms. The largest circle illustrates all of the things a person has reason to value, and is likewise divided down the middle into self-regarding (on the left) or other-regarding aspects (on the right). The perimeter rectangle represents the universe of all things whether a person has reason to value them or not and irrespective of whether they are self-regarding or other-regarding.

Figure 3. thus provides a novel perspective on the capabilities approach that I find useful. For me it clearly illustrates three things. The first is that even within the space of agency freedoms (substantive freedoms to lead the life a person has reason to value) capabilities and functionings are only one half of the picture. Secondly, within the space of 'things that a person has reason to value' there are unfreedoms to overcome (which relate both to self-regarding capabilities and functionings, but also to other-regarding values and commitments that people have reason to value. Thirdly the thick (red) line marks the boundary between agency freedoms and what Sen (1999: 33) calls 'unfreedoms', the removal of which are 'constitutive of development'.

Most capability approach research focuses on evaluative information about capabilities and functionings. Yet there is a bigger picture here.

“Development consists of the removal of various types of unfreedoms that leave people with little choice and little opportunity of exercising their reasoned agency. The removal of unfreedoms, it is argued here, is constitutive of development”. (Sen, 1999: xii)

If we take seriously Sen's assertion that development is a process of extending freedoms and removing unfreedoms, then what Figure 3. illustrates is that attention to the boundary between freedoms and unfreedoms is crucial to development as freedom, and that only part of this boundary relates to capabilities. The thick (red) line represents the boundary between the opportunity structures of substantive freedoms and the constraining structures of 'unfreedoms'. This boundary could be of key significance to an organisation like Asikana Network established, as it was, to extend the freedoms and

remove the unfreedoms faced by women in Zambia's ICT sector. If, as Sen (1999: xii) claims, the removal of unfreedoms is constitutive of development, the boundary in the diagram between existing agency freedoms and constraining unfreedoms demands the attention of researchers along with the space of capabilities and functionings. Deneulin (2008: 114) has claimed that the current emphasis in the capabilities approach on evaluative information about individual capabilities and functionings 'directs attention away' from the very structures that might be most relevant. In Figure 3, the thick red boundary of agency freedoms marks the outer extent of structures of opportunity and the inner extent of structures of constraint.

Figure 3, may therefore contribute by redirecting attention towards both (a) the space of (un)freedoms, and to the very structures that give rise to and sustain them; and (b) the relatively neglected agency-aspect of individual's other regarding values and commitments. This is a contribution of this thesis to redrawing understanding of the capability approach. Zheng and Stahl (2011) and Crocker (2008) are amongst scholars who have highlighted the relative neglect of the wider agency freedoms and achievements in capability approach research. In this research with Asikana Network I will focus on enabling participants' critical agency to identify and tackle the unfreedoms constraining their development, to excavate the structural root causes, and to deliberate about how this knowledge might inform action to overcome unfreedoms.

2.2.3 Sen's Participatory Turn

Having turned to agency in his Dewey Lectures (1985), Sen extended his 'agent-oriented' view of development in the 1990s when he turned to participation. In *Development as Freedom* (1999: 11) Sen outlines his normative position that disadvantaged people should be active participants in development initiatives, arguing that:

“With adequate social opportunities, individuals can effectively shape their own destiny and help each other. They need not be seen primarily as passive recipients of cunning development programs.

There is indeed a strong rationale for recognizing the positive role of free and sustained agency” (Sen, 1999: 11)

By placing the individuals facing deprivations centre stage, as the principal agents and protagonists in the construction of their own development, Sen connects back to a rich vein of human development theory and practice that has been continuous, though never dominant, since at least the 1960s (see sections 2.3.6 on Freire and 2.3.9 on Critical Feminisms below). From the publication of *Development as Freedom* (1999) onwards, Sen's account becomes more explicitly participatory and normative. He uses language which would have seemed out of place in *Commodities and Capabilities* (Sen, 1987) and which increasingly echoes that of the human development and feminist movements (Freire, 1974; Stromquist, 1999). Sen (1999: 281) states that central to his approach '*is the idea of the public as an active participant in change, rather than as a passive and docile recipient of instructions or of dispensed assistance*'. It is for this reason that Sen

considers agency-freedom important, not just as an end of development, but as the principal means of development (1999). For Sen:

“Greater freedom enhances the ability of people to help themselves and also to influence the world, and these matters are central to the process of development. The concern here relates to what we may call (at the risk of oversimplification) the “agency aspect of the individual”

(Sen, 1999: 18).

Following his turn to agency (1985) and to participation (1999) Sen became concerned to see disadvantaged people as active agents in determining their own development goals and projects, in line with their conception of the good. However for Sen this raised the problem that people subject to persistent deprivation tend to revise their development aspirations downwards, in a process which Sen refers to as 'adaptive preferences'. The next sections examine this phenomenon as well as Sen's proposed remedy of 'critical-agency'.

2.2.4 Adaptive Preferences

Sen (1999) uses the Marxist¹⁸ concept of 'false consciousness' as a point of departure to explain the concept of 'adaptive preferences' as a process in which persistently disadvantaged people accommodate themselves to that disadvantage. To illustrate the concept of adaptive preference Sen (1985: 21) gives examples of *“the overworked*

¹⁸ The term 'false consciousness' is often attributed to Karl Marx although he never used the term himself, at least not in print. Friedrich Engels used the term only once in a letter, but it was later developed and popularised by 'Marxist' scholars including Lukacs to refer to the way in which material, ideological and institutional processes led disadvantaged people to become unconscious supporters of social relations antithetical to their own interests.

domestic servant working round the clock, the subdued and subjugated housewife, [who] reconciled to her role and to her fate, tend to come to terms with their respective predicaments". Sen (1999) anticipates the concept of critical-agency that he will later develop in a book co-authored with Jean Dreze (Dreze and Sen, 2002) when in *Development as Freedom*, he says:

*"It is thus important not only to take note of the fact that ... the deprivation of the persistently deprived may look muffled and muted, but also to favour the creation of conditions in which people have real opportunities of judging the kind of lives they would like to lead"*¹⁹.

Sen (1999: 63)

Sen's reference to the "muffled and muted" voice of disadvantaged people is a subject that I return to below in Section 2.3.6, 'Culture of Silence'. Whilst Sen argues that we should favour conditions that allow disadvantaged people to deliberate and voice their conception of the good, he does not provide any guidance about how this might be achieved in practice. This thesis addresses this shortcoming by drawing on the work of Paulo Freire (section 2.3.6) and critical feminism (section 2.3.9). In Section 2.2.6 I show how Freire (1970) provides both an analysis of the structural causes of this relative silencing as well as practical guidance for overcoming it. This research then applies this guidance and modifies it for the medium of participatory video.

¹⁹ In *The Idea of Justice* (2009: 164) Sen uses the concept of 'false consciousness' as a point of departure to talk about Indian examples of 'objective illusion' in which women in Uttar Pradesh report low subjective self-perception of morbidity despite high objective indicators. Sen's diagnosis is that the objective illusion is due to insufficient literacy, information and awareness and prescribes 'critical scrutiny'.

Although Sen acknowledges the effect of persistent disadvantage in adapting preferences (Sen, 1999: 62) the issue is taken up only as one element in a critique of orthodox development economics, leading scholars such as Giri (2000) and Fukuda-Parr (2003) to argue persuasively that Sen has an under-developed appreciation of psychology, of subjectivity, and of consciousness as important aspects of human development. Sen's (1999: 62-3) presentation of his concept of adaptive preferences, I argue, seems to be one-dimensional; he presents preferences as if adapted by material circumstances alone, without reference to ideological or institutional structures that (re)produce adaptation. There is no discussion of the ways in which socially constructed concepts including gender, 'race' and caste are internalised and affect people's preferences and agency freedoms. In a related point Giri (2000: 1004) argues that Sen *“lacks a notion of critically reflective, creative, transformative self, and his notion of capability does not embody the seeking and quest for being, becoming, self-development and self-realization on the part of the actors”*. These epistemological themes of critical reflexivity, self-development, and self-realisation are central to Paulo Freire's critical pedagogy, covered in section 2.2.5 below.

I find Sen's concept of adaptive preferences valuable in highlighting the distorting effects of unjust social conditions on a person's subjectivity. However I find Sen to be insufficiently critical in analysing the structural power interests that give rise to, and sustain, unequal relations in the first place. Sen's (1999) concept of adaptive preferences also emphasises material adversity at the expense of ideological formation and the institutional effects that cause people to self-limit. This is of central importance to this research, as evidence from Asikana Network suggests that women's self-limiting beliefs contribute to women's under-representation in Zambia's ICT sector (see Section 6.1.4),

and that those beliefs are (re)produced by social institutions including family and church (see Section 7.1) in ways that serve men's interests (see Section 8.3.1). Accessing this knowledge required going beyond the depth of structural analysis afforded by Sen's approach, and relied instead on methods from critical feminism and critical pedagogy to understand the ideological processes and institutional mechanisms that structure subjectivities and material (dis)advantage.

I would also question the tendency within the capabilities approach to only present adaptive preferences as a negative affliction of disadvantaged people. My understanding of the concept is that all people's preferences are adaptive to their particular social circumstances, both material and ideological, and in directions that are both positive and negative. Vygotsky (1978) is amongst scholars who have shown that a person's ideas, attitudes and beliefs are predominantly assimilated uncritically from those that happen to be dominant in a given society and 'internalised' as one's own. Through the process of internalisation a person accepts values and norms that have been set by other people in society – often those with power and control over social structures. Reflexivity about how researchers' own preferences and values have been socially constructed is not always evident in capability approach research. Such reflexivity is a requirement of critical practice (Geuss, 1981; England, 1994; Rose, 1997) and is included in this thesis in Section 3.6.

Khader (2011) points out that the issue of adaptive preferences and agency are not only related but may be in constant tension during the research processes. There is a fine line to tread between respecting people's right to self-determine preferences (albeit self-subordinating preferences) and enabling a self-questioning of deprivation-perpetuating

behaviour in order that they can live in accordance with their interest in flourishing and developing. Interventions that aim to uncover the psychological damage and social injustice caused by structures of disadvantage always risk robbing participants of their agency. In my research the tension that Khader highlights was clear and present. At one point in the process I recognised that my own preconception of the women of Asikana Network as 'victims of oppression' had made me blind to their evident collective agency as co-producers of improved gender relations. I return to this theme in Chapter 6.

I would critique the concept of adaptive preferences both with regard to the term 'adaptive' and with regard to the term 'preferences'. Implicit in the term 'adaptive' is the idea of some 'authentic' pre-adaptive state of preference, yet adaptation is always-already there. The imagining of a pre-adaptive authentic preference raises the questions levelled at the concept of 'false' consciousness, namely how the authenticity of preferences (their 'falseness' or 'trueness') can be determined, and by whom. With regard to 'preferences' I would question why Sen's capability approach concentrates on the adaptation of preferences, at the expense of the adaptation of agency, self-efficacy, ideas and beliefs, goals and behaviours, and other aspects that are material to development and which are also socially constructed. I would argue that a comprehensive understanding of how individuals are socially determined, in ways that limit their own freedom and development, requires a broader informational basis than preference alone. In my research I will consider not just the adaptive preferences of women in Zambia's ICT sector but also analyse the adaptation of their self-efficacy, agency and other factors central to Asikana's use of ICT4D.

2.2.5 Critical-Agency in Dreze and Sen

Having turned to agency in 1985, and turned to participation in 1999, in his co-authored work with Jean Dreze (Dreze and Sen, 2002, 2013), Amartya Sen has more recently turned to critical agency. Concerned that in some circumstances, promoting women's agency can be counter-productive to gender equity, Dreze and Sen (2002, 2013) now show a preference for critical-agency. To illustrate the need for critical-agency Dreze and Sen use the example of 'son preference' in Asia. In previous research published in the British Medical Journal, Sen (1992) had established that many millions of women were 'missing' in Asia due to practices including sex-specific abortion and neglect of the girl-child²⁰. In circumstances where the mother's agency in the act of son-preference is part of the problem, they argue that to increase women's agency could be counter-productive:

“This type of inequality cannot be removed, at least in the short run, by the enhancement of women's empowerment²¹ and agency, since that agency is itself an integral part of the cause of natality inequality”.

(Dreze and Sen, 2002: 258)

This illustrates the general point that not all agency is good (Hoggett, 2001) and that agency itself is 'adaptive' in that it is determined, in part, by socially constructed beliefs, desires, motives and goals (Fay, 1994). In making the move to critical-agency, Dreze and Sen are arguing for a process of conscious reasoning to critically assess these

²⁰ This draws on Sen's (1992) earlier research published in the British Medical Journal which claims to show that the practice of son preference accounts for 100 million 'missing women' in Asian countries.

²¹ Again I take Dreze and Sen's use of the term empowerment to be consistent with Alkire's (2005) definition of empowerment as 'increase in agency over time', and with Malhotra's (2002: 8) view that 'agency is the essence of women's empowerment'.

socially constructed and 'prevailing' norms and values.

“What is needed is not merely freedom and power to act, but also freedom and power to question and reassess the prevailing norms and values.

The pivotal issue is critical agency”.

(Dreze and Sen, 2002: 258)

By using the example of son preference, Dreze and Sen forcefully make the point that enhancing *uncritical* agency can accompany persistent inequality and discrimination, and even exacerbate them. Acceptance of dominant and entrenched norms and values, argue Dreze and Sen (2013: 232-233), requires interventions that create space for critical deliberation that enable women to '*overcome the patriarchal mindset*', arguing that, “*critical-agency is important in combating inequalities of every kind*”. Dreze and Sen conclude their own reflection on the subject by stating:

“The agency of women can never be adequately free if traditionally discriminatory values remain unexamined and unscrutinised ... it is possible to overcome the barriers of inequality imposed by tradition through greater freedom to question, doubt, and – if convinced – reject. An adequate realisation of women's agency relates not only to the freedom to act but also to the freedom to question and reassess. Critical agency is a great ally of development”

(Dreze and Sen, 2002: 274).

Whether we call the subjective barriers to achieving the life a person has reason to value

'adaptive preferences' (Sen, 1999: 63), 'objective illusions' (Sen, 2009: 164), or 'culturally influenced norms and values' (Dreze and Sen, 2002: 274), Sen argues that individuals need to have the freedom and ability to critically evaluate their own circumstances in order to be able to determine the lives that they have reason to value. The concept of critical-agency is therefore key to this thesis because it allows participants to critically evaluate the factors that have shaped their subjective and material circumstances in ways that constrain their freedom and agency, and act to change them.

Dreze and Sen do not anywhere provide a definition for their conception of critical-agency, though it is possible to construct one from their usage. It seems evident that Sen does not think criticality is sufficient and that it must inform action. Sen has elsewhere specifically commented on the need to “*see women as active agents of change: the dynamic promoters of social transformation that can alter the lives of both men and women*” (Sen, 1999: 189). From this usage I interpret Dreze and Sen's concept of critical agency to encompass (a) questioning and re-assessing existing norms and values, (b) acting in ways that they have reason to value. By making this turn to critical-agency I interpret Sen to be using the concept as a means for individuals to overcome 'adaptive preferences' and other 'objective illusions' by questioning existing norms and actively re-aligning their actions in the world with their conception of the good (or life that they have reason to value).

Given Dreze and Sen's reasoning and their having made the move to critical agency, it is not clear whether, according to them, there are now any circumstances in which *uncritical agency* would be preferable to critical-agency? When Dreze and Sen (2002;

274) say that *the agency of women can never be adequately free if traditional discriminatory values remain unexamined and unscrutinised*”, they seem to be arguing that women's critical-agency, with regard to the unfreedoms that constrain their development, is a pre-requisite of their self-actuated development. I find this argument convincing. My research will use the technology of participatory video to create a space for women to *scrutinise* and reflect critically on *traditional discriminatory values* with the aim of enhancing their agency-freedom to realise lives they have reason to value.

2.2.6 Criticisms of Sen's Approach

Sen's capability approach has been successful as part of a wider human development movement in disrupting the dominant development ideology focused as it is around the primacy of economic growth. That orthodoxy is now tempered by the consideration of other aspects of development that people have reason to value, including health, education, participation and agency (Narayan et al, 2000, 2002). The capability approach has become the dominant heterodox approach, used primarily as a means of development evaluation (Zheng, 2009; Alkire, 2005; Deneulin, 2009). However there are significant criticisms of Sen's capability approach. Here I will address those that are most pertinent to this research.

Sen's insistence on the individual as the sole unit of evaluative analysis, and on the pluralism of individual's 'reasons to value' has led to some scholars questioning the extent to which it is possible to operationalise the capability approach (Beitz, 1986; Sugden, 1993; Roemer, 1996). Robeyns (2000: 29) points out that it is the “*open and somewhat amorphous character of the capability approach*” that is both its strength and the reason that it is challenging to operationalise. Yet credible attempts have been made

to measure capabilities (e.g. Qizilbash and Clark, 2005) and to provide frameworks for operationalising Sen's approach (e.g. Robeyns 2003; Gigler 2004; Kleine, 2007, 2009).

Gaspar (2002) criticises Sen's 'thin' concept of agency arguing that although Sen claims equal importance for agency and well-being in his approach Sen “*does not tackle the content of agency*” (Gaspar, 2002: 451) or have a theory of agency i.e. how agency is created, what are its constituents, and how we can engender it and make it efficacious for development. Some scholars have suggested that Sen's under-exposure to the disciplines of sociology and psychology may be contributory in explaining his 'thin' conception of agency and structure (Robeyns, 2006; Zheng and Stahl, 2011). This research will make a conceptual contribution by tackling the content of critical-agency; make recommendations about how it can be produced, and examine whether Asikana's use of participatory video can enhance critical-agency for development.

It would be wrong to suggest that Sen fails to consider structure at all. In the introduction to *Development as Freedom* he writes that “*the freedom of agency that we individually have is inescapably qualified and constrained by the social, political and economic opportunities that are available to us,*” (1999: xi) and later, “*such an approach also allows us to acknowledge the role of social values and prevailing mores, which can influence the freedoms that people enjoy and have reason to treasure*” (ibid; 9). However these introductory remarks having been made there is relatively little theoretical consideration of how, and by which processes, an individual's agency can influence, and is influenced by, power interests and structured norms and values (Gaspar, 2002; Gore 1997). Although, when co-authoring with Dreze (Dreze and Sen, 2013: 213-216), he illustrates how class-caste intersects with gender (dis)advantage, he

is again silent on how individuals might act to overcome this structural disadvantage. As a result Zheng and Stahl (2011: 74) argue that Sen, “*does not provide a full account and theorisation of societal structures and constraints*”, and suggests that this weakness of the capability approach is an area where critical theories offer a “rich theoretical repertoire” for analysing ideologies that act to limit freedoms:

“Good examples of ideologies are the stereotypes linked to race and gender. Such stereotypes, if generally accepted, structure the actions available to members of a particular race or gender, which can be oppressive”.

(Zheng and Stahl, 2011: 74)

Criticisms of Sen's failure to systematically address the structural relations of power are often attributed to his ethical focus on the individual (Gore, 1997; Cameron, 2000; Giri, 2000; Hartley 2009) and to his political liberalism (Deneulin, 2002, Hartley, 2009). Hartley (2009: 5) argues that Sen's approach is quintessential liberal-individualism and that in relation to:

“the revolutionary Enlightenment objectives of égalité (equality), liberté (freedom), fraternité (solidarity), the capability approach to equality is framed in terms of freedom, but not solidarity. It is a liberal-individualist approach and while ethical individualism need not imply methodological individualism (Burchardt, 2006) the priority is individual liberty, not social solidarity; the freedom to choose, not the need to belong”.

Hartley (2009: 5)

Sen's insistence that the individual must be the sole evaluative unit raises concerns about how removal of unfreedoms can be effected in practice (Navarro, 2000; Devereux, 2001) and his political focus on the liberal nation state and state government effectively closes off consideration of unfreedoms structured at the level of the global economic system (O'Hearn, 2009). Fukuda-Parr (2003) argues that removing systemic unfreedoms and extending political participation, objectives central to Sen's conception of development (1999) and social justice (2009), in practice require collective abilities in forming associations, public reasoning, and developing shared intent. Stewart and Deneulin (2002), Kabeer (2003), Alkire (2008) and Solava Ibrahim (2014) are among capability scholars who point to individual capabilities that cannot be achieved except through collectivities, and suggest adoption of the term 'collective capabilities'. But Sen has refused the term, apparently wary that evaluations that use larger units of analysis, such as family or community, will make invisible any inequalities that exist within the group. Whilst I share this concern I do not see it as a binary issue; it is possible to value both individual and collective freedoms and abilities. If, in addition to individual capabilities, is it accepted that people have reason to value belonging to groups and to value the role of collectivities in combating unfreedoms, then there is a strong case for extending the informational basis of development evaluation to include both. If, as Sen argues, the removal of unfreedoms is constitutive of development, and it is accepted that collective action is necessary to remove some unfreedoms, then logically collective processes are constitutive of development as freedom. As my own research is with the collectivity that is Asikana Network, I am convinced by the arguments of Kabeer (2003, 2013) that collective processes are necessary to transform unequal social relations.

I value Sen's articulation of an agency-based process of human development that is firmly rooted in social justice. I particularly value his emphasis on the need for critical-agency in order to counter 'adaptive preferences'. However for the reasons outlined above, and particularly its failure to make any sustained critique of structural power relations, Sen's capability approach is insufficient as a theoretical framework in this research. Therefore the next section assesses the value of critical theories as a practical guide for development action.

2.3 Critical Theories

Zheng and Stahl (2011) argue that critical theories and the capabilities approach have a number of elements in common: they are both normative approaches, grounded in concerns of ethics and justice that aim to make a difference in pursuit of the 'good life'. To add to this list, I argue that both are agency-based, human-centred, and advocate participatory approaches that value (to different extents) the critical questioning by disadvantaged people of oppressive norms and values. However there are also distinctions between them, which may be considered to be fundamental, depending in part on the definition of 'critical' being used. In the following section I discuss what sets critical theories apart from other approaches before establishing the theoretical framework that was adopted for this research.

2.3.1 What Makes a Theory 'Critical'?

Used extensively across the social sciences and humanities, most often without definition, the term 'critical' has become over-extended in ways that have diluted its meaning. Being critical can simply mean asking questions about a subject or exploring

something in depth. As these are basic requirements of any academic research, when used in this sense the term critical has no distinguishing value. In this research I will use 'critical' in the explicitly political sense given to it by the Frankfurt School of critical social theory, who sought to understand how dominant ideas can limit the nature of thought and action, and how we might act to overcome these constraints to produce transformational change.

Critical theory claims to provide an epistemological means to enable individuals and groups to critically evaluate, for themselves, the nature of injustices which they experience and can therefore act as a guide to social action to transform the situation. Critical theories are inherently political in that the explicit aim is emancipation from forms of domination and oppression; this is achieved by enabling disadvantaged people themselves to identify and remove the unfreedoms that oppress them.

2.3.2 The Frankfurt School

According to one of the founding members of the Frankfurt School of critical theory, Max Horkheimer, (1993: 21) critical theory “*has as its object human beings as producers of their own historical form of life*”. Horkheimer (1972: 244) argued that a theory is 'critical' in so far as it seeks “*to liberate human beings from the circumstances that enslave them*”.

In his study of the work of Frankfurt scholars, in *The Idea of Critical Theory*, Raymond Geuss (1981: 2) interprets the defining features of a critical theory to be:

1. *Critical theories have special standing as guides for human action in that:*
 - (a) *they are aimed at producing **enlightenment** in the agents who hold them, i.e. at enabling those agents to determine what their true interests are;*
 - (b) *they are inherently **emancipatory**, i.e. they free agents from a kind of coercion which is at least partly self-imposed, from self-frustration of conscious human action.*
2. *Critical theories have cognitive content, i.e. they are forms of **knowledge**.*
3. *Critical theories differ epistemologically in essential ways from theories in the natural sciences. Theories in the natural sciences are 'objectifying'; critical theories are '**reflective**'.* (Geuss, 1981: 2)

Geuss (1981: 2) uses 'enlightenment' here in the specific sense of enabling people 'to determine what their true interests are'. The implication is that people can misrecognise²² their own interests due to the pervasive effect of dominant ideology²³, which can cause 'false consciousness'. Critical theory claims that people persistently subject to dominant narratives that present their disadvantage as justified, normal and immutable, may 'internalise' those values and sincerely believe that they deserve to be treated unequally, or that the system serves their interests. Ideology critique is often at the core of critical theories²⁴. Geuss argues that critical theories are 'inherently

²² Bourdieu uses the term misrecognition to refer to the gap between the 'objective' view of a disadvantaged person's situation and their own 'subjective' understanding of it, elsewhere herein called 'objective illusion', 'adapted preferences', 'naive consciousness' and 'false consciousness'.

²³ I am using ideology here in the discursive sense of ideas, beliefs, concepts, values and attitudes (Geuss, 1981: 7).

²⁴ The analogy with Marx's critical social theory is that he argued that members of a subordinate class unconsciously repress their own interests in favour of those of the ruling elites, which they have unconsciously internalised from the dominant ideology. This is clearly expressed in Marx's assertion that, "The ideas of the ruling class are in every epoch the ruling ideas ... The class which has the means of

emancipatory'; as they are based around epistemological practices that enable agents to free themselves from the subjective effects of dominant ideology (or what are sometimes called dominant 'narratives' or 'discourses'). This is what Geuss means when he claims that:

“A critical theory, then, is a reflective theory which gives agents a kind of knowledge inherently productive of enlightenment and emancipation.”

(Geuss, 1981: 2)

What united critical theorists of the Frankfurt School, in part, was their critical epistemology: a process of excavating beneath the surface of commonly held assumptions to reveal the often hidden aspects of social structure and internalised oppression; the objects of their conscious reflection and critical understanding. By revealing the mechanisms of domination embedded in culture, ideology, and the unconscious (Ray, 1993), people become better able to determine their own interests and to define their self-action for development.

On the basis of this reasoning I am persuaded that a definition of critical-agency is necessary, one that goes beyond Sen's (2002: 258) idea of *“questioning and reassessing prevailing norms and values”*. Following the logic of critical theory, I argue that a definition of critical-agency is required that critiques the power interests that give rise to those norms and values in the first place. In my research I will therefore adopt a critical

material production at its disposal, has control at the same time over the means of mental production, so that thereby, generally speaking, the ideas of those who lack the means of mental production are subject to it” (Marx, 1845; 64). As a response to this situation, critical practice often involves 'consciousness raising' activities designed to make these processes the object of participant's conscious reflection.

epistemology and critical practice²⁵ designed to enhance participants' ability to excavate the material, ideological, and institutional structures that support the male-domination of Zambia's ICT sector. Chapters 6, 7 and 8 analyse evidence that Asikana Network members were not only able to identify discriminatory gender norms and values but also to identify the institutions that (re)produce them, their cultural basis, and the material basis of male-domination in men's interests.

One other key concept from the Frankfurt School that I later rely on is Habermas' (1972) concept of knowledge constitutive interests. In *Knowledge and Human Interests* (1972: 309) he claims that three kinds of fundamental human interests 'constitute' (meaning determine or make possible) three knowledge constitutive paradigms.

Habermas sees the positivist empirical-analytical sciences, characterised by its hypothetical-deductive process, as being constituted by the technical human interest in control over the natural world. He similarly sees the interpretivist-hermeneutic sciences, characterised by the understanding of meaning (rather than empirical observation of facts), as constituted by the practical human interest in communicative-understanding. The final category, critical social sciences, is characterised by critical reflection on "*ideologically frozen relations of dependence that can in principle be transformed*". Habermas claims that this ideology-critique is constituted by the emancipatory human interest in freedom from domination. Later in this research I build on work by Unwin (2009) and Buskens (2014) to use these categories of Habermas' to produce a practical framework for a critically aware ICT4D.

²⁵ By critical practice I mean one which involves participants in an investigation of the deep structural causes of the injustices that they experience in order to discern their own best interests and self-determine action to transform their situation.

Human Interest	Process	Research Paradigm
technical-control	hypothetical-deductive	positivist empirical-analytical sciences
communicative- understanding	understanding of meaning	interpretive hermeneutic sciences
emancipation from domination	ideology critique	critical social sciences

Table 2. Habermas' Knowledge Constitutive Interests (source author)

2.3.3 Criticisms of the Frankfurt School

The term Critical Theory is often reserved for members of the Frankfurt School from Horkheimer to Habermas (Bonner and Keller, 1989; Rasmussen, 1996; Stirk, 2000) rather than being more widely interpreted as descriptive of any “*reflective theory which gives agents a kind of knowledge inherently productive of enlightenment and emancipation.*” (Geuss, 1981). The former narrow interpretation of critical theory leaves it open to critique as being a Eurocentric discourse of, “*white men in conversation with themselves*” (Yancy, 1998: 3). Critical feminists including Seyla Benhabib (1986), Iris Marion Young (1990), and Sharon Welch (1990, 2000) have specifically criticised Habermas's failure to take sufficient account of gender and 'race'. Brookfield (2005: 310) concludes that overall “*gender is under-theorised in the male-authored Frankfurt canon*” and Lucius Outlaw (in Brookfield, 2005: 275) and Reiland Rabaka (2010) argue compellingly that black, feminist and queer scholars of critical theories such as Angela

Davis (1982), Audrey Lorde (1984), Franz Fanon (1963), Albert Memmi (1957) and bell hooks²⁶ (2000) have been systematically marginalised by the critical theory of the mainstream academy. In recognition of the validity of this critique my research will draw upon critical feminisms and on critical theory from the global South, which includes analysis of domination and disadvantage along dimensions that include gender, 'race' and class as well as the intersections thereof.

2.3.4 Critical Pedagogy

Paulo Freire's book *Pedagogy of the Oppressed* (1970), has sold over one million copies, making it arguably the most widely read text on education and development. It is the founding text of the field of critical pedagogy, a sub-discipline of critical theory, and has been influential in education and international development, as well as being foundational to the field of participatory video. Whilst the approach of Amartya Sen has been influential in multi-lateral development institutions, in policy debates, and in academic research, the critical theory-practice of Brazilian scholar and activist Paulo Freire (1970, 1974) has widely influenced the working practices of grass-roots and community-based development organisations. Freire's work has been practically applied by over 500 international development agencies in more than 60 countries (Riddell, 2001; Duffy, 2008) and so provides a useful point of reference for critical development studies. Although best-known for his work on popular literacy in Brazil, Freire was also influential in other dimensions of development. In exile in Chile between 1964 and 1969, he headed Chile's Institutes of Agricultural Development and Agrarian Reform (Holst, 2006); he published a critique of orthodox agricultural extension practice (Freire, 1974) and played a significant role in the development of participatory action research

²⁶ bell hooks is the pen name of Professor Gloria Watkins and is always written in lower case

(Freire, 1972a). His ideas were a key influence on participatory video (Shaw and Robertson, 1987; Lunch and Lunch, 2006).

Like the Frankfurt School's critical theory on which it draws²⁷, Freire's critical pedagogy aims at liberation from material and internalised oppression through a reflective epistemological process intended to discern dominant interests and to distinguish them from a person or group's own interests. Freire used a critical dialogic process of group discussion as a means for people to increase their understanding of the structural root causes of social injustice in order to act as an impetus for transformational social change. Key themes that united Freire's theory-practice across the sectors in which he was influential were the insistence that disadvantaged people must be co-authors of the means and ends of their own development, and the practice of group dialogue to refine participants' ability to '*read the world*' critically and to '*act in the world to transform it*' (Freire, 1974: 4).

2.3.5 Levels of Consciousness

The intent that disadvantaged people should determine the ends and means of development necessarily raises the issue of 'false consciousness'. Just as Amartya Sen would do 30 years later, Freire uses the Marxist idea of 'false consciousness' as a point of departure to develop his own concepts to explain people's self-limiting behaviour. Freire drew on Memmi (1957) and Fanon's (1963) powerful studies of the psychology of the colonised mind to describe how dominated people often internalise the ideas, attitudes and beliefs of the group dominating them and embed them within their own

²⁷ Freire's critical pedagogy has clear roots in critical theory and the Frankfurt School in particular. Freire explicitly references Lukacs (Freire, 1970; 52), Marcuse (Freire, 1970; 46; 1972: 15) and Erich Fromm (Freire, 1970; 45; 1974; 99; 1998; 55).

thinking. Freire (1970: 156) called this the '*oppressor within*', saying that, to the extent that a person houses 'the master' within themselves, they self-regulate, and remain passive in the face of oppression.

Freire developed his own concepts to reframe the idea of false consciousness. During the literacy work that he designed to enhance the critical-agency of Brazilian peasants in the 1960s, Freire (1970: 130) claimed to discern three levels of consciousness: each of them 'less false' than its predecessor: he termed them magical, naïve and critical. 'Magical consciousness' was characterised by an apparently passive acceptance of subordination. 'Naïve consciousness' was characterised by recognition of unequal social relations, but with a failure to question the structural causes of inequality, or to recognise the potential of their own agency for change. When participants recognised that their disadvantaged situation was not 'natural', god-given, or immutable, but was socially-constructed by actors pursuing their interests, and when they recognised their own agency to act for change in the world, Freire termed the outcome 'critical consciousness'.

By way of critique, Elias (1976) made the point that Freire's categories of oppressor and oppressed were both reductively binary and vague. Freire did not define oppression nor, in *Pedagogy of The Oppressed*, did he deal with the reality that a person may be both oppressed by their employer and oppressive to their wife²⁸. In later work his conception of oppression became progressively more nuanced, able for example to recognise that a person can be oppressed at work at the same time as being the oppressor at home, and

²⁸ In *Pedagogy of the Oppressed* p.156 Freire does however talk about teaching professional's potentially having dual status as both dominated and dominators.

able to articulate the intersectionality of 'race', gender and class oppression (Freire, 1998). He also abandoned the crude and somewhat patronising distinctions between magical, naïve, and critical consciousness²⁹.

Freire argued that everyone, irrespective of education level, is capable of looking critically at the world in a dialogical encounter with others. Agency, developed in this way, to critically '*read the world*', enabled people to better identify their own interests and informed their ability to '*act in the world*' to transform it. In the terms of Geuss's (1981) definition of critical theory, Freire's method centres on the epistemologically *reflective* process of collective discussion to identify agents' immediate practical issues and needs. These compelling issues are used as generative themes to stimulate discussion and help the group identify the often-hidden ideological, institutional and internalised root causes of those problems. The new *knowledge* (including self-knowledge) produced by this method is *enlightening* to the extent that it enables agents to determine their own interests, and *emancipatory* to the extent that it builds participants' critical-agency to progressively 'free' themselves from these social and psychological constraints on their development. In this way Freire's theory-method meets Geuss's (1981: 2) definition of a critical theory as "*a reflective theory which gives agents a new kind of knowledge inherently productive of enlightenment and emancipation*". This informs my research as the women of Asikana Network reflect on their practical experience of discrimination as generative themes for films and workshop discussion, in order to produce new knowledge about the interests shaping the male-domination of Zambia's ICT sector, which in turn informs action that they take to

²⁹ In fact Freire never used the magical/naive/critical stages after the 1970s and spoke rather about an on-going process of 'becoming critical'

address the situation.

2.3.6 Culture of Silence

Freire often used the concept of a 'culture of silence' in his writing (1970, 1972, 1998) by which I understand him to mean not a literal silence but a relative passivity in the face of domination, marked by an relative inability to articulate dissent or alternatives to an oppressive reality. For Freire, a culture of silence could apply to students subject to an entirely didactic form of teaching, or to a systematically subordinated group, or to a nation of colonised people. He claimed that when subject to persistent oppression subjected people become 'domesticated' by their persistent experience of not being heard, into not expecting to have a voice (1974: 23). Freire saw this as a form of false consciousness, an example of subordinated groups internalising their oppressor's projected implicit or explicit judgement of them as '*having no opinion of value*' (1998: 105). With no effective voice in public affairs, the interests of subaltern groups are under-represented in policy processes, law-making, and opinion-forming, and their disadvantage becomes further structured (Giddens, 1984).

Freire's solution to this absence of voice is a dialogic process of conscientisation (see next section) to recover people's ability to 'name the world' and to realise their individual and collective agency to challenge and remake the world. Freire's (1970: 53) practice for developing voice was to involve those 'submerged' in a culture of silence in a reflective group process of critical engagement with participants' experience of injustice in order to better know it, and become better able to express it (to name the world). First 'denouncing' the injustice that they uncover and secondly 'announcing' their intent to act in the world to transform it. In *Literacy: Reading the Word and the World*

Paulo Freire and Donaldo Macedo (1987) lay out their premise that education should develop in learners: (a) the ability to critically reflect upon and 'read the world', that is to identify ways in which injustice is socially structured; (b) the ability to name oppression and to voice dissent; and (c) the ability to take part in social action to transform the world. In my research design I drew on these concepts of critical reflection, voice and action to produce the provisional list of constituent elements of critical-agency, and to frame my research questions (as outlined in Section 1.3.2 above).

2.3.7 Critical Consciousness and Agency

Freire did not use the term 'critical-agency'. Freire's critical practice is a process of *conscientização*, in English 'conscientisation', the intention of which is to increase participant's critical consciousness and agency. Later scholars of critical pedagogy including Giroux (1988) and McLaren (1995) developed the compound term critical-agency to signify both critical consciousness and agency.

In *Pedagogy of The Oppressed* (Freire, 1970: 19) defines *conscientização* as the process of “*learning to perceive social, economic and political contradictions and to take action against the oppressive elements of reality*”. In practice the critical method takes the form of group discussion about participants' practical situation and the problems that they face. Typical questions might be 'What are the practical problems that people face here?'; 'How did things come to be this way?'; 'Who benefits from things being this way?'; 'What interests are being served?'; 'How might things otherwise be?', “What needs to be done to transform the situation?”.

In this critical practice the facilitator's role is only to pose questions that stimulate participants in an ever-deeper excavation of the root causes³⁰ of their disadvantaged situation: moving from the detail of people's practical problems to discern their structural causes. By recognising and building on the knowledge that participants have about their personal situation, the cultural and political context, and the problems they have in common, it becomes possible for participants to deepen their analysis of the structural causes of inequality that they experience and to self-determine collective priorities and action. The process is often found to enhance participants' self-efficacy and self-esteem as they exercise their ability to tackle the problems that constrain them (Ledwith, 2011).

Freire's (1970) problem-posing method is designed to confront participants with a problematisation of their social situation which requires them to critically analyse the causes of their disadvantage themselves. This desire to move people from being passive objects of other people's agency to becoming increasingly critical agents in their own self-development unites Freire's writing on education (1970), participatory research (1972a), and agricultural development (1974). It also shares much in common with the consciousness-raising work of many critical feminists explored in the next section. In my research, the technology of participatory video is used as a means for women to share their experience of gender discrimination and (dis)advantage, and to develop their own shared understanding and analysis of the structural causes of gender (dis)advantage in Zambia's ICT sector, as well as a means to voice their dissent and intent to transform the situation.

³⁰ This method has commonality with the engineering technique of root cause analysis (Wilson, 1993), which distinguishes causes from root causes. Removal of a cause can be beneficial, but does not prevent recurrence. Removal of a root cause prevents recurrence.

2.3.8 Criticisms of Freire

Considered a subversive text, *Pedagogy of The Oppressed* was banned in several countries including apartheid South Africa as well as in Freire's native Brazil. The book polarised opinion and was criticised from radically different perspectives. From the political left Freire (1970) was criticised for paying insufficient attention to class, whilst from the political right, as well as by some feminists (Freire, 1998: 20) he was criticised paradoxically for “*an over-emphasis on class*”. Freire's use of the general and vague term 'oppression' was both a weakness as well as a reason for the book's wide appeal, as it allowed people from very diverse backgrounds to read their own experience of (dis)advantage into the text, and to construct their own meaning from it.

As addressed in Section 2.3.5 Freire's early distinctions between magical, naïve and critical consciousness were crude and somewhat patronising, and he was rightly criticised for sexist language and for a binary concept of oppressor/oppressed, which made invisible the complexity and subtleties of subjection and domination. Freire (1970) treated all Brazilian peasants as a single homogenous masculine group, an error which he later sought to address in *Pedagogy of Hope* (1998). To Freire's credit he did publicly acknowledge these criticisms as valid and subsequently modified his position and writing to address these weaknesses (Freire, 1998).

Just as Freire's (1970) binary concept of oppressor/oppressed has met with justified criticism, a similar critique is also appropriate of his concept of a 'culture of silence'. As will be demonstrated in Section 6.1.3 in practice the silencing is relative and more nuanced than the binary format in which Freire presents it in *Pedagogy of the*

Oppressed. In Zambia there is silencing of women relative to men but not all women (or men) experience identical (dis)advantage due to intersections of power related to age 'race'-ethnicity and marital status.

The influential positivist sociologist, Peter Berger (1974), claimed that the whole idea of conscientisation was an arrogant and patronising project of 'higher-class' individuals directed at a 'lower-class' population. Whilst empirically some higher-class individuals will undoubtedly have been arrogant and patronising in their application of Freire's process, I would argue that Berger's generalised theoretical claim is contradicted by a close reading of Freire's (1970: 160) text. Freire insists on subject-subject relationships between educator and educatee, and warns educators to avoid imposition of their opinions and values in what he claims would constitute '*cultural invasion*'. In practice this balance is always challenging to accomplish, and requires critical reflection. However, it was a practice that Freire continued to work at, in theory and in practice, throughout his life. It has also been used by hundreds of development agencies in the course of their work and been subject to significant critical evaluation (Riddell, 2001; Duffy, 2008; Beardon, 2004).

Pedagogy of the Oppressed has been justifiably criticised for using 'men' and 'man' throughout in place of 'women and men' and 'humankind' and for the complete absence of female protagonists as well as no mention of patriarchy or male domination (Brady, 1994; hooks, 1993, 2000; Weiler, 1994). bell hooks took up the matter in person with Freire and reports (hooks, 2000: 42) that '*he supported wholeheartedly this criticism of his work*' and urged hooks to make her criticism public in her own publications. Freire (1998: 65-68) himself wrote that '*countless*' North American feminists wrote to him

immediately after the US launch of *Pedagogy of the Oppressed* expressing their anger and critique. Freire claims to have written back to each of the women and his subsequent publications attest to the positive effect of their critical-agency on his subsequent output, both in terms of his inclusive language but also in terms of the representation of matters of gender and 'race' alongside class. This is particularly relevant for my research as Asikana women participants took the initiative to confront men on camera about their gender prejudices and caused them to revise their preconceptions. The use of participatory video by the women of Asikana Network to accomplish this outcome is explored in Chapter 7.

2.3.9 Critical Feminisms³¹

'Critical dialogue', that is, the discursive practice to generate new knowledge and enlightenment about the power interests structuring disadvantage, is not unique to Freire's process of 'conscientisation'. It is also a central part of the gender consciousness-raising workshops employed by some critical feminists (Sarachild, 1970; Ledwith, 1997; hooks, 2010)³². According to Molyneux (1985: 233) the group work of translating womens' practical interests into critical consciousness of their 'strategic gender interests', "*constitutes the central aspect of feminist political practice*". The distinction that Molyneux makes between women's practical interests and their strategic gender interests is one that Buskens' (2014) builds upon to distinguish between 'reformist' and 'transformist' activities, one on which I later rely, so I want to clarify the conceptual

³¹ My use of the term critical feminisms here does not refer to self-definitions but rather to feminisms that are 'critical', as the term has been defined for the purposes of this research.

³² Freire's method of conscientisation was directly appropriated, adapted, but explicitly referenced by Steve Biko's Black Consciousness Movement in South Africa (Arnold, 1978; Magaziner, 2010) critical feminist pedagogies (Ledwith, 1997; hooks, 2000, Crabtree, 2009) and for class consciousness-raising by trade unions (Cooper, 2007).

distinction here.

This debate, starting with Molyneux (1985), makes a distinction between women's interests, practical gender interests and strategic gender interests. Not all women's interests relate to gender; some of women's interests will relate, for example, to their 'race' or class position. Women's gender interests are those that develop through gender attributes; Molyneux distinguishes between two kinds of gender interests. *Practical gender interests* are those discerned inductively from practical circumstances and needs, for example access to employment, childcare and equal pay. *Strategic gender interests* are discerned deductively, by theorising structural or transformational change, and relate to gendered divisions of labour, power and control, for example securing political equality, ending male violence and control over women, and sharing the burden of domestic work and childcare. Molyneux (1985: 233) makes the point that it is women's demands in relation to their strategic gender interests “*that are usually termed 'feminist', as is the level of consciousness required to struggle effectively for them*”. Molyneux's claim that a higher level of political consciousness is required to effectively transform gender disadvantage has a close analogue in Freire's claim that 'critical consciousness' and agency are necessary to guide transformative action. The idea that developing people's critical-agency should be part of any development initiative that aims to enable disadvantaged people to identify and remove the unfreedoms that constrain them, lies at the conceptual core of this thesis.

Molyneux (1985) claimed that practical interests are often symptomatic of deeper-seated strategic-structural issues of power and control, and therefore it is the latter which must ultimately be rooted out in order to achieve any fundamental or lasting change:

“these practical interests do not in themselves challenge the prevailing forms of gender subordination, even though they arise directly out of them”

(Molyneux, 1985: 233).

Whilst Molyneux's categorical distinction between practical and strategic interests is valuable, it has attracted significant critique. The Zambian scholar and development activist Sara Longwe (1991) is amongst those that have argued that practical and strategic interests cannot so easily be separated; that initiatives in the realm of practical interests often have consequences on strategic interests (and vice versa); and that development interventions can and should target *both* practical needs and strategic interests. The Longwe Empowerment Framework (1991) creates a hierarchy of levels of gender equality from practical issues of welfare and access to strategic issues of participation and control. Longwe sees 'conscientisation' as an essential bridging mechanism in which critical dialogue connects women's practical needs to what Zheng and Walsham (2008: 236) call the *“deep-seated issues of political and institutional arrangements”* that often underpin other inequalities.

Longwe's Framework also meets the criteria of Geuss's (1981: 7) critical theory, in that it is a reflective process, productive of knowledge and enlightenment (about interests) and which has emancipatory intent. The Longwe Framework informed the design of my research by illustrating the way it would be possible to use conscientisation as a bridge between the presented practical needs of Asikana members to deal with low self-esteem and the need to secure employment; and their strategic interest in tackling male control over, and violence towards, women and the division of domestic labour.

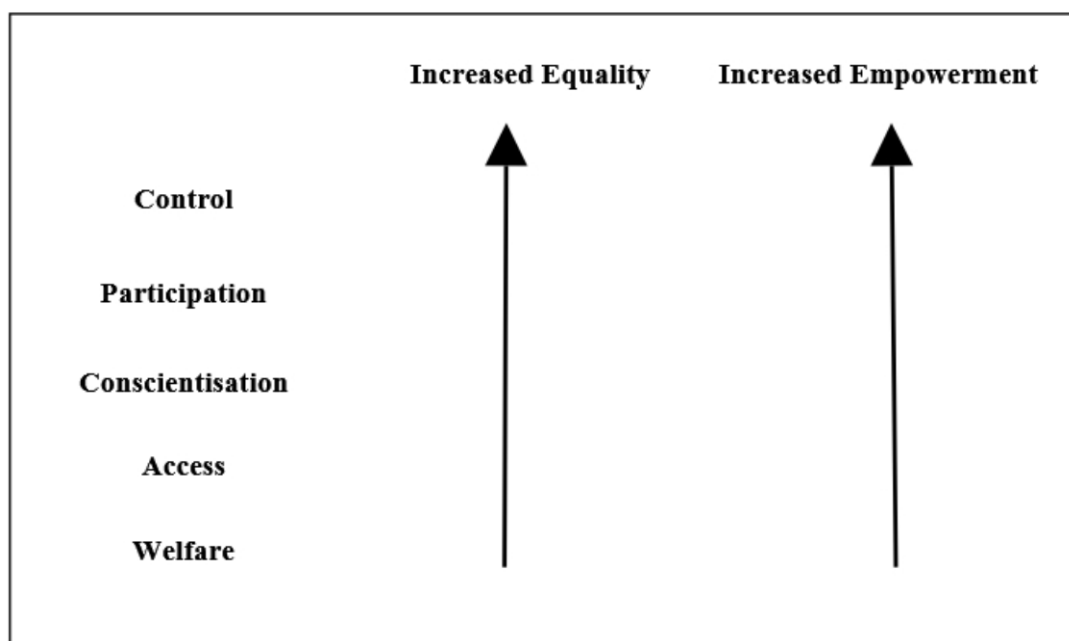


Figure 4. Longwe Gender Empowerment Framework (source March 1999: 93)

By way of criticism, Longwe's (1991) framework deals only in broad generalities and does not examine the relationships between women and men, or consider the macro-environment or institutions involved (March, 1999). In order to enable the analytical tools of practical needs and strategic interests to be used in a more nuanced way, Kate Young (1993: 156) suggested the concept of 'transformatory potential'. The method that she proposed was,

“to allow the interrogation of practical needs (by women themselves) to see how they can become or transform themselves into strategic concerns.

In other words, have they the capacity or potential for questioning, undermining or transforming gender relations and the structures of subordination ?”

As Young (1993) and others have shown, it is often productive, at the same time as

addressing immediate practical needs, to enter into critical dialogue with participants about their experience of (dis)advantage. By means of a collective excavation of the structural root causes of their situation, there exists the 'transformatory potential' (Young, 1993) for disadvantaged participants to liberate themselves from the conditions that oppress them. This form of critical-agency practice informs the design of this research, which will value the practical and strategic activities of Asikana Network in terms of their 'transformatory potential' to end male-domination of Zambia's ICT sector.

Scholars such as Kate Young were anxious to correct the omission of women from development theory and practice in the first UN Development Decade (1960-1969) and to correct a general deprioritisation of gender concerns to those of class (1993: 18). Perhaps as a result of a desire to foreground gender concerns, the stratification of women and men along lines of class and 'race' was absent from many gender and development approaches (hooks, 1982, 2000). From the perspective of intersectional critique, some gender and development approaches treated women as a single homogenous category and failed take account other dimensions of women's disadvantage such as their 'race' or class (Collins, 2000).

In the United States especially there has been a history of critique from Black and lesbian women about the cultural homogeneity of the leadership and concerns of the suffrage and women's movements that stretched back more than a century at least to Sojourner Truth (McKissack, 1993). Angela Davies (1982), bell hooks (1982) and Audre Lorde (1984) are among contemporary scholars who have made compelling critiques of the White, middle-class leadership and concerns of mainstream feminism in the twentieth century. In her 1989 paper Kimberlé Crenshaw referenced this legacy and

coined the term 'intersectionality' to refer to the claims that women experience structures of (dis)advantage to varying degrees and intensities, and that dominations based on gender, 'race' and class do not act independently of one another but are interrelated in a way that can be understood as 'intersectional' forms of discrimination (Crenshaw, 1989). As a result the (dis)advantage of a Black woman can be fully understood neither exclusively from a gender perspective nor exclusively from a "race" perspective.

Crenshaw's intersectionality thesis, and the argument of Hill (2000) that overcoming the complex 'matrix of domination' requires critique of the interrelated structures of domination, as well as action to overcome them, are important to my research in the sense that any attempt to understand the forces structuring the lives of women in Zambia cannot be understood through the lens of gender alone. Following hooks (2000) I am conscious that, just as Freire erred in treating all Brazilian peasants as a single homogenous masculine group, it would be a mistake to consider all Zambian women to be unaffected by dimensions such as class or 'race'- ethnicity.

2.4 Conclusion

Based on this literature review I am now able to establish the theoretical framework with which to interpret the ICT4D work of Asikana Network. Amartya Sen's capability approach provides this thesis with its normative framing of human development as an agency-based process in which disadvantaged people are enabled to determine and pursue their personal well-being and wider conception of the good. In *Development as Freedom* (Sen, 1999) provides a clear articulation of a participatory approach to multi-

dimensional development that serves as a valuable counterpoint to orthodox econometric approaches. Sen's more recent (2002, 2013) turn to critical-agency is also particularly welcome as it indicates a practical means through which people can enhance their ability to critique the circumstances that determine their disadvantage.

However Deneulin (2008) has argued persuasively that the current emphasis in the capability approach on evaluation directs attention away from the structures that might be most relevant. The lack of any consideration of collective processes and absence of any sustained analysis of power interests in Sen's capability approach limits its use as a guide for the task of removing unfreedoms, a task which Sen argues is constitutive of development. My redrawing of Sen's conceptual map (Figure 3) intends to foreground this contradiction and to *direct attention towards* the removal of structural unfreedoms. Critical pedagogy and critical feminism help to address the weaknesses of the capability approach by providing the analytical depth and practical guidance for disadvantaged people to critique the structural power interests that reproduce gender injustice to guide social action to transform the situation.

Paulo Freire and Amartya Sen share a vision of an agency-based process of human development rooted in social justice. Realising this vision is however complicated by the fact that all people internalise dominant narratives that justify and naturalise unequal social relations. Further, people who live in conditions of persistent deprivation often adjust their aspirations to what they might realistically expect. In order to overcome this misrecognition of interests, Dreze and Sen (2002, 2013) and Freire (1970) argue that enabling people's critical-agency is therefore pivotal to development. However the existing literature does not provide an agreed definition of critical-agency; nor does it

supply any conceptual clarity about its constituent elements. This research sets out to make contributions in terms of closing these gaps. I argue that a reading of critical theory produces a more extensive definition of critical-agency, and leads to a more multi-faceted picture of its constitutive elements, than one based on a reading of the capability approach. For Dreze and Sen (2002, 2013) the function of critical-agency for development extends only as far as questioning pervasive norms and values. For critical theorists, critical-agency must necessarily extend to uncovering the power interests and institutional mechanisms that structure those norms and values in the first place. From the perspective of critical theory the process of producing critical-agency is a necessarily collective endeavour of reflection and dialogue to produce shared intent and collective action to transform the circumstances that constrain development and social justice. This conception of critical-agency makes it possible to establish a provisional list of the constituent elements of critical-agency (reflection, observation, dialogue, intent, voice and action); the existence of this provisional list makes it possible to tailor a research methodology (See Chapter 3.) to assess whether use of participatory video enhances these elements of critical-agency.

If we are to take seriously the claim of both capability approach and critical theorists that disadvantaged people must themselves be the principal protagonists of their own development, then building the critical-agency of participants to evaluate both the ends and means of development that they have reason to value must be a core component of development initiatives. The critical theory and practices of feminists including Longwe (1991) and Buskens (2014), and of critical feminist pedagogy (Ledwith, 2011; hooks, 1994), provide a practical guide for accomplishing this, which I draw upon and modify for use with participatory video, in order to enable disadvantaged people to be the

authors, architects, and arbiters of their own development. In the next chapter I will draw upon these approaches to shape a research methodology that involves the women of Asikana Network as active participants in the investigation into the nature and causes of the severe discrimination and disadvantage that they experience in Zambia's ICT sector.

Chapter 3. Methodology

The previous chapter analysed the claims that critical-agency is key in tackling injustice (Freire, 1970; Dreze and Sen, 2013) and pivotal to development (Dreze and Sen, 2002). This chapter sets out to operationalise the concept of critical-agency in ICT4D and to detail a research design that addresses gaps in the existing literature by (a) providing a case study of ICT4D use to tackle gender injustice in Zambia technology sector (b) providing conceptual clarity about the elements of critical-agency and (c) new knowledge about the affordances of participatory video to enhance critical-agency.

This chapter will present and analyse the research methodology, research design and methods used in this research. In summary the research takes a case study approach focused on the work of Asikana Network to tackle the gender discrimination and disadvantage experience by women in Zambia's male-dominated ICT sector. I adopt a participatory action research methodology, using participatory video and participatory workshops to create a space for Asikana members to investigate the nature and causes of the gender discrimination and (dis)advantage that they experience. Mixed qualitative methods were used to produce data in the form of 36 film narratives, 86 semi-structured interviews, 48 field diary entries, 8 workshop records, and 3 focus groups, each of which was transcribed, coded and analysed, in part, using data analysis software.

This chapter is organised in three main sections. The first section will discuss the rationale for the approach adopted and describe the research setting. It will also introduce Buskens' (2014) framework for research in gender and development, which in later chapters I re-purpose as a tool for aligning ICT4D intent and practice. The second

section will examine the qualitative methods adopted under the headings of case study methods, critical methods and reflection methods. The third section will then cover data analysis, reflections on my positionality and ethics, and will conclude with a discussion of research limitations and learning.

3.1 Introduction

In this research a participatory action research methodology was adopted in order to involve Asikana Network members as co-researchers data collection, analysis and knowledge production about the issues that their organisation exists to address, i.e. gender (dis)advantage in Zambia's technology sector. Based on my literature review a potential alignment emerged between the theory of critical feminisms (Ledwith, 2005; Crabtree, 2009) and critical pedagogy (hooks, 1994; Luke, 1992), the methodology of participatory action research (McIntyre, 2008; Swantz, 2001) and the practices of participatory video (Lunch and Lunch, 2006; Benest, 2010). Each of these areas has drawn inspiration from Freire's intent to enable disadvantaged people to become principal protagonists in transformative change. As Robert Chambers (1983: 73) has commented:

“Paulo Freire, whose pedagogy of the oppressed enables poor people to look critically at their world, to break out of their 'culture of silence', and to take control of their own destinies, has been an inspiration to those who have been seeking methods of research in which rural people are actors rather than objects of observation and sources of data”

(Chambers, 1983: 73)

I designed my research to enable Zambian women to be active participants in producing knowledge that would inform the on-going work of Asikana Network. Research participants were required to themselves determine the themes and questions for their own participatory video investigation of gender inequality in Zambia's ICT sector. In small groups they produced their own films about issues of concern to them and to their organisation. In an attempt to avoid 'extractive' research in which only the foreign researcher's knowledge is increased (Fals-Borda, 1998; Fals-Borda and Rahman, 1991) Asikana alone control the video channel³³ on which their films were published, as well as having physical ownership of the workshop records³⁴. Copies of the recordings of my own subsequent semi-structured interviews with Asikana film-makers were offered to research participants, and provided to them on request.

3.1.1 Rationale

There exists a wide range of approaches to research which, it may be argued, reflect different ontological and epistemological positions; in this chapter I will locate my research with reference to these claims. Valentine (2001) argues that a research design emerges from a researcher's conceptual framework, their knowledge of the literature and of particular techniques' advantages and disadvantages, as well as from the specific questions that they want to ask. This chapter will reflect how each of these elements, as well as my own normative commitments and positionality, influenced the design and operationalisation of my research aims.

If it is true, as Valentine (2001) claims, that a research design emerges in part from a

³³ I do not know the password of their YouTube channel on which they published their participatory video films <https://www.youtube.com/user/AsikanaNetworkzambia>

³⁴ This refers to the flicharts, lists and drawings that were the outcome of the participatory workshops.

researcher's conceptual framework, we might expect a research design to reflect their ontological, epistemological and ethical commitments. That is: what categories of things an individual holds to exist in the world; how they consider reality to be knowable; as well as elements of their conception of the good and deontological adherences. In this chapter I intend to be explicit about my own biases, commitments, and positionality, in as much as I am aware of them (Rose, 1997) and locate this research with respect to the main research paradigms.

Positivism has three goals: description, prediction and control³⁵. It takes the view that both the natural and social worlds are composed entirely of empirically knowable entities that operate according to discoverable laws. Positivist research is often characterised by hypothetical-deductive experimentation and by quantitative methods. However two centuries of positivist social science have produced no predictive theory (Flyvberg, 2006). Anti-positivists argue that this is because humans are ontologically distinct from the atoms studied in the physicist's laboratory, are not governed by the same laws, and therefore demand alternative epistemological and ethical approaches. Flick (2009) contrasts positivism with constructivism, a range of approaches that see our knowledge of the world, including science, as being composed of constructs produced by human consciousness and shaped by, amongst other things, social, cultural and political factors. From this perspective the primary goal of study is understanding rather than control or prediction. The interpretive methods favoured by anti-positivists seek to produce situated knowledge (Haraway, 1998) rather than universal laws, and seek to understand complex social processes by analysing the subjective meanings that people

³⁵ A point already referred to in Section 2.3.2 in reference to Habermas' claimed knowledge constitutive interest of technical control.

themselves have for their behaviour and for social processes³⁶ (Flick, 2009). In working through the issues in this research I have found that the critical realist approach of Bhaskar (1975) provides a useful perspective, acknowledging both that objective reality exists independently of our knowledge of it, and that humans experience that reality through subjective interpretation. Critical realists argue, as Bhaskar does (in Archer, 1998: xii) that “*The domain of the real is distinct from, and greater than, the domain of the empirical*”. This is shown in Figure 5. which illustrates that, in critical realist ontology, agency events and structural mechanisms exist in on-going mutually-constitutive relationships, only a fraction of which we are empirically aware of (but which nonetheless constitute The Real).

This ontology of multiple levels of existence beyond those that are empirically observable, and which give rise to the latter, is a route out of the positivist-constructivist dichotomy. From this perspective there is a mutually constitutive relationship between, on one hand, the flow of the human agency that produces structures of ideology, 'race', media and gender, and on the other hand, the influence of those social structures on human subjectivity and behaviour. From this perspective social structures are considered to be 'open' and not controllable in a laboratory-type setting. Critical realists argue that, unlike the natural world, the rules of society or culture are not universal but rather situated in time and space. From this perspective social theory has no predictive power in the positivist sense, and its value and its intent lies in the production of understanding

³⁶ There is no claim on my part that qualitative methods are inherently superior to quantitative methods, or that particular methods are synonymous with particular epistemological approaches. Different methods will be appropriate to different contexts and challenges Gilbert (2008) and may complement each other (Bullock, Little and Millham, 1995). As Buskens' (2014) framework (Table 3) illustrates, research methods are under-determined by research paradigms; any research method may be used within any paradigm.

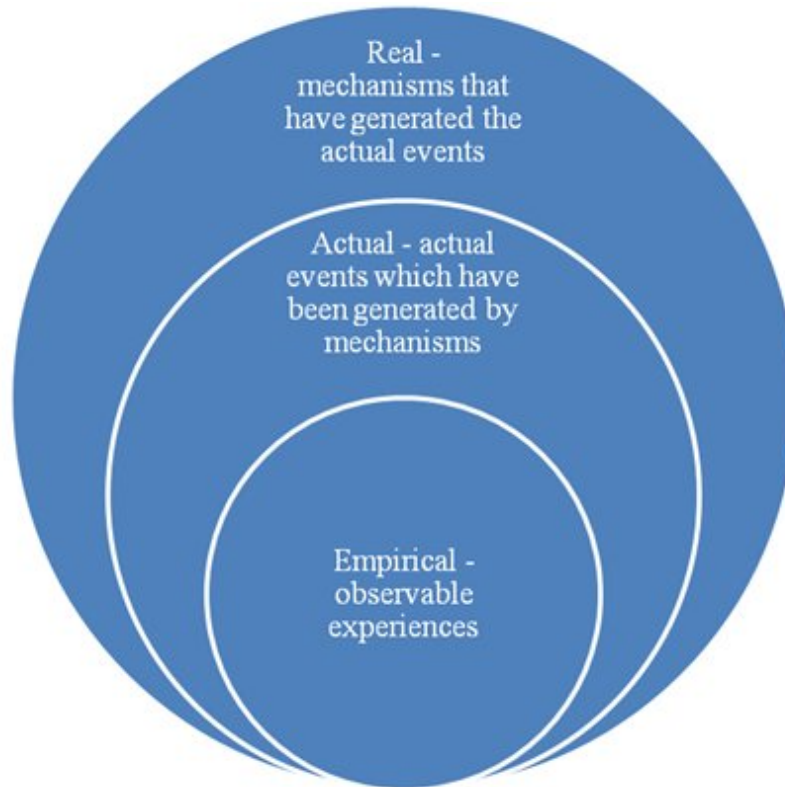


Figure 5. The Real, Actual, and Empirical (source: Mingers and Wilcox, 2004).

and in its explanatory benefits. Critical realism requires a deep analytical understanding of any social situation, going beyond the observable and concerned to investigate the causal mechanisms behind social phenomena (Archer, 1998). This is directly relevant in my research, as I use participatory video not in an effort to discover facts and predictive rules in the positivist sense, but in order to develop an understanding of the gender injustice that Zambian women experience, at a critical depth which goes beyond observable discrimination. My research investigates, alongside Asikana members, the causal mechanisms behind the gender injustice that they experience, in order that their organisation has the substantive opportunity to take action that addresses the root causes of the problem, and which therefore has 'transformatory potential' (Young 1993).

Writing about gender and development research Ineke Buskens (2014) has produced a

matrix of researcher intent and methods to represent the relationship between them in gender research (Table 3. below). The categorical distinction that Buskens draws between conformist, reformist and transformist research intent resonates with Freire's levels of consciousness, as well as with Maxine Molyneux's (1985, 1998) distinction between practical and strategic gender interests, discussed in the previous chapter. It will be recalled that Molyneux argued that reformist initiatives that focus exclusively on practical needs cannot, in and of themselves, challenge the structural basis of gender inequality. Molyneux (1985: 233) argued that the feminist practice of dialogic workshops to politicise these practical interests and produce 'feminist consciousness', was a precondition for feminist action targeted on transforming the structural basis of gender inequality. Freire's (1970) critical consciousness, Biko's (Arnold, 1978) Black Consciousness³⁷, and Molyneux's (1985) feminist consciousness each rely on a critical dialogic process intent on disadvantaged people themselves identifying the (often hidden) structural causes of the discrimination and injustice that they experience on a practical level.

Buskens (2015) argues that conformist research will assist and support women to adapt and to conform to society's existing unequal gender relations. In contrast reformist researchers will seek to reform unequal gender relations (whilst leaving their structural causes unchallenged and unchanged). Finally transformist researchers will aim to fundamentally transform unequal gender relations, which they see not only as a problem in itself but also as a symptom of a deeper structural problem needing to be resolved.

³⁷ Steve Biko was a leader of South Africa's 'Black Consciousness Movement', which used a group process of conscientisation derivative of Freire's practice in order to free the minds of Black South African's from the internalised racism that they had incorporated into their own consciousness as a result of persistent exposure to apartheid public pedagogy.

Intent/Method	Conformist	Reformist	Transformist
Empirical-Analytical	Quantitative Research that aims to understand how to make women better respond to the demands of the existing socio-economic-political-religious structures that support, amongst other things, unequal gender relations.	Quantitative Research that aims to reform gender (labour) relations that are discriminatory, whilst leaving the socio-economic-political-religious structures that support such relations intact.	Quantitative Research that aims to transform the socio-economic-political-religious structures that support unequal gender relations, through understanding to what degree women are dependent on those structures for their needs and practical gender interests.
Interpretive-Hermeneutic	Qualitative Research that aims to understand how to make women better respond to the demands of the existing socio-economic-political-religious structures that support, amongst other things, unequal gender relations.	Qualitative Research that aims to understand the emotions and justifications women have developed in adaptation to their unequal gender relations in order to reform those unequal gender relations.	Qualitative Research that aims to transform the socio-economic-political-religious structures that support gender inequality through assisting women to understand their feelings, emotions and choices regarding their discriminatory realities.
Critical-Emancipatory	Participatory / Action Research that aims to assist women to better cope with unequal gender relations and the socio-economic-political-religious structures that support them.	Participatory / Action Research that aims to understand women's feelings, emotions and reactions in their relationships and situations in order to reform these unequal gender relations.	Participatory / Action Research that aims to transform unequal gender relations and the socio-economic-political-religious structures that support these, through assisting women to understand to what degree they are dependent on those structures for their needs and practical gender interests.

Table 3. Gender Research Intent and Methods (source: Buskens, 2014)

Buskens' categories of research intent can be criticised on the basis that, in conceiving of change only extending from a (conformist) status-quo in an egalitarian direction, a normative bias is revealed. Reformist or transformist change in an egalitarian direction is not the only kind of development possible. Some neo-liberal theorists have argued that inequality is desirable and productive of economic growth (Hayek, 1976; Friedman, 1980). Informed by neo-liberal economic theory, the World Bank's Structural Adjustment Programmes certainly delivered 'reforms' and 'transformational' structural change, but in a quite different direction to the kind of 'development' apparently valued by Buskens. However, reflecting my own normative position in favour of equity and social justice, I would argue that inequality is antithetical to development, structured as it is, along lines of gender, 'race'-ethnicity and/or class-caste (UNDP, 2014a; Crenshaw, 1989; hooks, 2000). This normative commitment to a version of human development, which like that of Sen, is rooted in social justice, but which additionally, like that of Freire, is intent on transformational change, influenced my research design.

I found Buskens' framework particularly useful in thinking through my research intent and methods and as a tool for producing an alignment between the two. As the research progressed I also found the framework more broadly useful as a tool for analysis. I asked myself what changes in a particular ICT4D practice would justify a re-categorisation between for example reformist and conformist, or between empirical-analytic and critical-emancipatory research. Of course real life is infinitely more complex and fuzzy than any academically abstract categories, including those in Table 3., and any such boundaries will be permeated in practice. Nonetheless unless a person takes the position that we have no reason to value any development project any more or less than any other, then we must use concepts and categories in our valuations.

I find Buskens' concepts to be pertinent and to reflect key distinctions firmly established in the existing literature. I suggest that the tool is useful to researchers in its existing form for evaluating ICT4D research approaches and for making key theoretical distinctions (and I will later suggest modifications to Buskens' framework in order to apply it to ICT4D practice more generally).

A researcher may have a normative commitment to work that reforms unequal social relationships rather than conforming to and reproducing them. In such a case the framework can help researcher to align their intent with appropriate methods. Alternatively a researcher may have an intellectual curiosity about what kinds of development programme might contain 'transformatory potential'. In such a case the framework may serve an evaluative function. In Section 3.9 I suggest that Buskens' framework has potential application outside of the purpose for which it was developed i.e. gender and development research, and I modify the framework for informing ICT4D initiatives more generally.

My own research design includes critical-emancipatory processes and interpretive methods (participatory action research) and has transformist intent in that it aims to enable women to excavate - and make the object of Asikana's social action - the structural root causes of the gender inequality that they experience. As chapters 6-8 will show, my own research also includes elements that are conformist, reformist and interpretive, such as developing editing skills, challenging gender norms, and process building on people's practical problems to make meaning of existing relations. This thesis will argue, as have Longwe (1991), Young (1993) and others, that whilst conformist and reformist activities are necessary elements of building 'transformatory

potential', they are ultimately insufficient, in and of themselves, for transforming male-domination. This thesis will argue that critique and action targeted on the structural power interests that (re)produce gender inequity are additionally necessary elements of a wider programme with transformist intent. My research design therefore is based around agency-based processes which enable the women of Asikana Network to deepen their own knowledge of gender disadvantage in Zambia's ICT sector, as well as the patriarchal power interests giving rise to and sustaining the unequal gender relations that they regularly experience. My research design thus rests on an epistemology that is both social-constructivist and critical (Bentley, 2003); constructivist in the sense that it sees reality as socially constructed by human actors, and critical in the sense that it recognises that dominant groups have the power to distort knowledge production in their own interests, with the result that it is often a person's existing knowledge (often unconsciously learnt and internalised) that is the most significant obstacle to new knowledge (Osborne and Freyberg, 1985).

In this research Asikana members use participatory video as a critical practice to identify what they consider to be the mechanisms and structural power interests determining the unequal gender relations in Zambia's technology sector, as well as identifying potential strategic uses of technology for social transformation (Archer, 1998). In order to access the meanings that women research participants attached to their own situation, I adopted a mixture of qualitative methods to enable participants to excavate beyond their surface understandings and to produce new knowledge about the mechanisms determining the reality that they experienced empirically.

3.1.2 Case Study Selection

As originally conceived, the primary case study was to be a women's group in the rural village of Macha, in Zambia's Southern Province. I had visited Macha on seven previous occasions and had established working relationships with villagers in a non-research capacity³⁸. During my first visit to Macha in a research capacity in December 2011 I piloted an interview guide. However when I returned to Macha to pilot the participatory video process in March 2012, the community was becoming increasingly embroiled in bitter conflict between key local leaders over some buildings and land, making the originally planned research practically impossible.

Fortunately another women's group, Asikana Network, had requested me to teach a course in film-making and this provided an opportunity to reorient the research. Asikana Network had been formed less than twelve months earlier by women experiencing gender discrimination in the ICT sector in Zambia's capital city Lusaka. I had previously promised Asikana that when I returned to Zambia I would facilitate an internal strategic planning process and run a film-making workshop for their members. Facilitating the process of strategic planning for Asikana founders provided a good opportunity to learn about the organisation's founding motivations and ethos (Valentine, 1997) and their request for me to teach film-making to their members provided a natural opportunity to discuss the concept of participatory video with them.

The forced change of research focus meant that the process of relationship and trust

³⁸ I had facilitated provision of computers and solar internet labs from Computer Aid International and helped produce two programmes for BBC Click.

building that had taken place over the course of two years in Macha had to be developed with Asikana as part of a dynamic and unfolding process. Although gender had developed as a core theme when piloting in Macha, the new research focus with Asikana Network (fore)grounded the theme of gender and ICTs. A flexible and dynamic approach to research was required that was capable of responding to changing events and themes as they arose (Glaser and Strauss, 1967). A fine balance was maintained between clear research aims and methodology, and flexibility to modify or even let go plans as determined by the evolving situation (Murray and Overton, 2003).

In terms of gaps in the existing literature, the Asikana Network case study extends knowledge in several respects; it documents the profound gender discrimination and disadvantage experienced by women in Zambia's ICT sector, as well as their self-organisation to challenge and overcome gender injustice including through the use of ICTs. The case study also presents new knowledge about how particular Zambian social institutions serve to reproduce unequal gender relations in the Zambian ICT sector, including marriage conventions, and religious, educational, and workplace practices. The knowledge claims arising from this case study are that ICTs can be used proactively by women to enable them to critically understand and challenge gender inequality, and that the ICT of participatory video has particular affordances for enhancing this critical-agency for development and social justice. Whilst the case study focuses particularly on unequal gender relations these were found to intersect with other dimensions of inequality including class and ethnicity. Further research will be necessary to assess whether findings from this research are relevant in other cases. The case study triangulated data from a range of sources which are considered in the next section.

3.1.3 Data Sources

In total I conducted four field visits. A short visit in December 2011 to pilot research questions was followed by participatory video and research engagements from March to May 2012, February to April 2013 and June to August 2013. Towards the end of my final field research period in Zambia the situation in Macha stabilised and I was able to conduct a short participatory video process and some interviews. However circumstances had dictated that I was only able to spend three weeks in Macha compared with over six months with Asikana Network in Lusaka. As a result this thesis focuses predominantly on the substantive case study of Asikana Network in Lusaka, with Macha providing a rural counterpoint.

Longitudinal case studies were carried out with two groups in Zambia; the primary case study with Asikana Network in the capital city of Lusaka, as well as a much smaller study in the rural village of Macha. A series of participatory video workshops was held in both locations. Interviews were carried out with film-makers prior to and after the participatory video process; interviews were also carried out with founders of Asikana Network and BongoHive and with the men interviewed in films by Asikana videographers. I conducted 3 all-female focus groups with women videographers, workshop facilitators and Asikana Founders. These methods produced a variety of data sources. Transcriptions of 36 films, 86 interviews, 48 research diary entries, and 3 focus groups, along with workshop records, photos, and press clippings were all loaded into the qualitative data analysis software *NVivo* to facilitate data navigation and coding. A time-line of the main research phases as well as detail of the data collected is shown in Table 4. (below) and disaggregated by gender and research location.

Research Phases	Research Element	Data Collected	Gender
05-17Dec 2011	Pilot of Questions in Macha	11 interviews (10 transcribed)	7 women / 5 men
28Mar-20May 2012	Pilot of Participatory Video in Macha = PV1 (16 mixed participants)	28 films (22 transcribed)	Mixed Groups 9 women / 7 men
06Feb-18Apr 2013	2 nd + 3 rd PV workshop PV2 Asikana (6 women) PV3 Asikana (5 women) Focus Group 1 (9 women) Focus Group 2 (9 women)	8 films (6 transcribed) 2 Focus Groups (2 transcribed) 18 interviews (18 transcribed)	All women All women 14 women / 4 men
12Jun-Aug22 2013	PV4 Asikana (4 women) PV5 Asikana (3 women) PV6 Macha (6 women) PV7 Asikana (6 women) Focus Group 3 (10 women)	14 films (8 transcribed) 1 Focus Group (1 transcribed) 58 interviews (58 transcribed)	 all women 41 women / 16 men
Data Overview:			
36 transcribed films		out of 50 produced	
86 transcribed interviews		of 58 interviewees	37 women / 21 men
		of whom 30 PV were women	all women
		of whom 21 Asikana 9 Macha	all women
3 transcribed focus groups		composed of 28 Asikana women	all women
48 transcribed field notes	Research diary		
8 workshop records	Participatory diagrams and flipcharts, etc.		
8 supporting docs	Press cuttings, local reports		

Table 4. Time-line of Field Research Phases and Data Overview (source: author)

3.1.4 Research Setting and Sampling

The location and setting in which research takes place plays a significant role in research processes (Willis, 2006). In this research all workshops, interviews and focus groups were conducted on participants' own 'territory' and in spaces that they suggested or made available, which helped to ensure a congenial setting (Valentine, 1997). In Macha the research activities used the community radio station as its base; in Lusaka activities centred around Asikana's organisational home, the technology and innovation hub called BongoHive, which was a single-story, three-bedroom, house in a middle-class suburb of Lusaka, used as an office, meeting and training venue for technology enthusiasts, experts and entrepreneurs. My research interviews were either conducted in a private room or, more often, in the shade of a tree in the grounds, ensuring a comfortable and private setting (Valentine, 1997; Flick 2009).

When considering which language to use as the medium of research, a balance has to be found between investing in language learning or translation and time invested in other data collection (Devereux, 1993). There are 72 indigenous languages spoken in different regions of Zambia. However, as a legacy of colonialism, English is the country's official language, and post-primary education and exams are conducted in English. On taking local advice I discovered that even if no 'Musungu' (i.e. White person) was present it was local practice to conduct educational workshops in English. Whilst I was following local practice, it remains the case that using English meant that individuals who had no post-primary education were effectively excluded from participation. Given the over-representation of girls and women in the category of individuals without post-primary education (Zambia Central Statistical Office, 2013) this was a potential source of gender

bias, so in Macha I controlled the sample to ensure 50% female participation. When working with the women-only organisation of Asikana Network, the organisational members who took part in the participatory video workshops in Lusaka were self-selecting, in that all of Asikana's one hundred members were invited to take part using the organisation's social media channels, and all twenty-one female Asikana Members who expressed an interest were enrolled into one of five separate participatory video workshops conducted with Asikana members. All twenty-one Asikana video-makers were invited to one of the three focus groups along with three co-founders of the Network. I also interviewed all Asikana co-founders, as well as three other Asikana members who did not make films, to make a total of twenty-eight female Asikana interviewees. I also interviewed four male BongoHive co-founders and eleven male BongoHive members who appeared in films produced by Asikana members. The non-film-making interviewees were purposively sampled (Flick, 2009; Patton, 2002) for the insight that their experience or perspective as observers might add to that of participant film-makers. In addition to the forty-three interviewees from Lusaka, in Macha I interviewed fifteen people: nine female film-makers, two male film-makers, and two female and two male non-film-makers. This produced a total of fifty-eight unique interviewees (37 female and 21 male) forty-three of whom were from Lusaka and fifteen of whom were from Macha.

In the next three sections I discuss the mix of qualitative methods employed in this research organised in three categories. First I will present the methods used for reflection, second the case study methods and third the methods chosen for their potential to generate critical-agency.

3.2 Methods Used for Reflection

One of the distinct challenges of this research was engaging as a co-facilitator of the participatory video process at the same time as being a reflective researcher of that process. I taught participants how to film and edit, and facilitated the critical dialogue sessions, whilst also researching the process. For this reason the research design needed to include methods to enable continual reflection, analysis and, where necessary, adaptation of the process.

This section outlines the methods of observation and reflection, used alongside the case study methods, to review and analyse the process taking place. My dual role, facilitating the participatory video process and as researcher, made these reflective methods especially important in creating alternate moments of critical engagement and detached reflection. Conceptually, the 'participant' element of participant observation runs along a continuum from all observation and very little participation, to all participation and very little observation. Kearns (2010) argues that all observation is participation because, however 'neutral' the observer, the act of observation affects performance. At the other end of the continuum, Evans (1988: 205) warns of the perils of over-immersion resulting in “*too much participation at the expense of observation*”. The potential to become engrossed in the participatory video process made systematic and organised data collection and reflection essential for rigorous research (Baxter and Eyles, 1997). The main methods used for reflection were video, interview data and a research diary.

3.2.1 Videos about Video-Making

Although the majority of the films produced addressed the constraints and opportunities

faced by the groups producing the videos, two films were produced that were commentaries of participants on the participatory video process itself. These were transcribed and included as data for analysis. Participants' comments, for example on the distinction between the participatory process and their prior learning experience, provided evaluative feedback on the participatory process itself.

*“The difference from a normal school is [in the PV process]
you have more freedom to speak your mind and to express yourself.
There's no limitations”.*³⁹

Hannah, ID-17-PV2

3.2.2 Interview Data Reflecting on the Process

In a similar vein, the interviews that I conducted with film makers and other participants after the film-making workshops, included questions not only on whether they experienced any change as a result of the process but also to which elements of the process they attributed any changes⁴⁰. This form of cooperative enquiry (Heron and Reason, 2001), effectively enrolling participants as knowing co-researchers, was effective in providing data that would not have otherwise been available to me as a participant observer.

Some 'key informants' (Tremblay, 1957) who provided particularly rich data were more frequent sources of data, interviewed more often and often in more depth, during the

³⁹ It is important in participatory research that the voices of the Zambian women whose experiences are central to this research are foregrounded speaking in their own words (Baxter and Eyles, 1998). I try to achieve this through the extensive use of quotations marked out visually: indented and italicised in order to give them their due prominence.

⁴⁰ See especially question 22 in Appendix 4.

course of the field research and were consulted for advice in order to validate my working assumptions and provisional findings. One key informant was an Asikana Network founder who would regularly request meetings with me to keep up to date with the film-making process and to seek advice on organisational development and donor funding issues that might benefit Asikana. Two other key informants were 'graduates' of early film-making workshops, who had become co-facilitators of subsequent workshops. These co-facilitators were keen to meet and talk through challenges and learning opportunities that they had encountered when leading groups, and wanted to talk at length about issues arising. Although they requested the meetings or initiated the discussions these conversations were rich sources of data and reflection on the process as it developed.

It is always challenging to know whether research participants are saying what they really think or what they think you want to hear due to 'social desirability' and the approval motive (Crowne and Marlowe, 1964). We recognise in our own behaviour that there is sometimes a gap between what we feel and what we report. According to scholars such as Harre and Secord (1972: 84) this does not invalidate the value of interpretive accounts of behaviour; indeed it can provide insight into meaning-making. They ironically suggest that “*for scientific purposes, people should be treated as if they were human beings*” and thus capable of providing valuable accounts of their own behaviour. Whilst it is true that we can never know whether interview or focus group responses reflect actual behaviour or people's attempts to be consistent with their self-image or public-image, scholars such as Alasuutari (1998) argue that these realities should not be considered 'biases' to filter out, but as constitutive parts of human reality.

3.2.3 Research Diary

Notes taken whilst participating or observing film-making and workshops were written up in the evenings in a research diary. Two 'graduates' of the first participatory video workshops volunteered to facilitate subsequent participatory video workshops. These co-facilitators benefited from the opportunity to learn facilitation skills and to reinforce their technical film-making skills; new workshop participants benefitted from having female role-models and I had hoped that this arrangement would benefit me by freeing up my time to act as a participant observer (Flick, 2009). However I underestimated how much time I would need to spend as a technical assistant and coach to the novice facilitators, who were keen for my on-going feedback, advice and technical support. As a result the nature of my observation can be characterised less as the 'detached observer' envisaged in the original research design, and more as 'engaged observation' (Cresswell, 2005).

Whilst in the workshop session I therefore made only condensed bullet-point notes of key issues, quotes, observations and opportunities for process modification, the substance of which I discussed daily with co-facilitators at the end of each session. In the evenings this was elaborated in my research diary into pages of “*experiences, ideas, fears, mistakes, confusions, breakthroughs and problems*” (Spradley, 1980: 71 quoted in Flick, 2009). The inductive-deductive interplay between these practical experiences and theoretical approaches enabled a creative and flexible response to the emerging process as it unfolded (Gray, 2004).

3.3 Case Study Methods

A case study approach to research involves intensive study of a single instance of a phenomenon or process, studied by means of one or more methods and is often contrasted with extensive approaches such as surveys (Kara, 2010; Hay, 2010). In my research the object of study was the use of participatory video in Asikana Network to enhance critical-agency for development.

Critics of case study research often question the value of focusing on a single case, the findings from which may not be generalisable to other situations (Abercrombie, 1984; Dogan and Pelassy, 1990; Campbell and Stanley, 1966). In as much as a case study is not a representative sample of a wider population, any findings are not *statistically generalisable*. My research intends rather to analyse a specific phenomenon in depth, in order to derive insight and to produce new knowledge and theory; theory which may prove to be *analytically generalisable* and to a degree transferable to other instances of the phenomenon (Glaser and Strauss, 1967; Yin, 1984; 21, Flyvbjerg, 2011). Flyvbjerg's work has been particularly influential in countering misunderstandings and prejudice about the case study approach. His most widely referenced study concludes with the insight that:

“a scientific discipline without a large number of thoroughly executed case studies is a discipline without systematic production of exemplars, and a discipline without exemplars is an ineffective one. Social science may be strengthened by the execution of a greater number of *good case studies*”

(Flyvbjerg, 2006).

To my knowledge, there is no existing in-depth qualitative research that analyses whether, under what circumstances, and how the use of participatory video enhances people's critical-agency to determine their own development. This research aims to provide a case study to address that deficit. In my research the choice of a case study approach is driven by the research problem and by pragmatic concerns. As the process by which participatory video enhances, or fails to enhance, critical-agency for development has not previously been studied in depth, I seek to address this deficit by means of an in-depth case study with the aim of producing an exemplar.

Triangulation is one means of enhancing the rigour of the research process. Triangulation is the use and comparison of different kinds of data and methods to assess whether they corroborate or refute one another (Silverman, 2005). In my research I used four kinds of triangulation: of data sources, methods, investigators, and theories (Denzin, 1989; Baxter and Eyles, 1997; Hay, 2010). By comparing data from different sources (e.g. Asikana women participants, BongoHive male non-participants, women non-participants and non- Asikana members) it was possible to corroborate research foundations. By adopting a mixed qualitative methods approach (interviews, focus groups, participatory video, participatory workshops and research diary) it was possible to assess whether the different methods are corroborative of findings. By adopting a participatory action research approach it was possible to bring the interpretations of multiple researchers to bear on research findings, and by using the lenses of both Amartya Sen's capabilities approach and Paulo Freire's critical theory it was possible to assess if, and to what extent, these theoretical approaches corroborate research findings (Flick, 2009; Denzin, 1989).

3.3.1 Interviews

An interview is a data-gathering method in which an interviewer attempts to elicit information or expressions of opinion or belief from another person or persons (Dunn, 2010). Face-to-face verbal interviews are preferred over survey data collection for a variety of reasons. They retain the potential to capture non-verbal elements of communication such as body language and facial expression (Garcia, 2009; Flick 2009) and issues can be explained and clarified with follow-up questions tailored to meet needs. Semi-structured open-ended questions provide greater flexibility in the search for meaning than multiple-choice questions used in surveys (Silverman, 2005). In my research I also elected to use interviews as I concluded that this best reinforced the dialogic process of participatory video (Fals-Borda, 1979), providing a complementary space in which participants could voice their critique of the status-quo as well as appreciate their potential agency for positive change (Ludema, Cooperrider and Barrett, 2001).

Interviews lasted between twenty and ninety minutes and were semi-structured in format. I used the 'interview guide' approach (Flick, 2009, Patton 2002) to balance a concern to leave the process sufficiently open to emerging themes determined by interviewees with a concern to focus around a manageable number of core themes (Hay, 2010; Denzin and Lincoln, 2005). The interview guide was substantially revised after initial piloting and incrementally refined during the two main fieldwork phases as some topics and wordings proved more productive in generating useful data. All interviews were voice-recorded with participant's prior permission. Although recording interviews has the potential to inhibit interviewees (Flick, 2009) the processes of the film-making

workshop had accustomed participants to expressing opinions to camera, which perhaps reduced inhibitions in subsequent audio-recorded research interviews. Only one participant declined to be interviewed, presenting shyness as her reason which was, of course, respected.

The first round of interviews took place with participants prior to or during the first day of the participatory video workshops and proved most useful in understanding the challenges and disadvantages that they had faced as women entering the field of ICTs in Zambia as well as their understandings of the causes of those inequities. The opportunity to engage one-on-one for an extended period with each participant also helped establish rapport and a sense of shared concerns and conviviality. The second round of interviews took place on the last day of filming or in the week following filming/editing and was most useful in determining what changes participants attributed to the participatory video process, including the opportunity to drill down into which specific element of change they attributed to which element of the participatory video process. These findings are the subject of chapters six, seven and eight.

Although my original research design had only considered interviewing the women members of Asikana Network, this was modified due to the unanticipated direction that participants decided to take the process. Once the women became confident film-makers they decided to turn the cameras on the men and to ask them why women were discriminated against in the ICT sector. This produced novel results discussed in Chapter 7. As a result I revised my purposive sampling (Morgan, 1998; Patton, 2002; Flick, 2009) of interviewees to include eleven of the men questioned on film by Asikana women, in order to incorporate their experience as research data. A smaller sample of

ten members of BongoHive and Asikana who did not take part in the participatory film-making workshops were also interviewed to provide alternative perspectives and to provide triangulation of data sources (Denzin, 1989; Flick 2009).

3.3.2 Focus Groups

Interviews are a means of exploring the understandings and meaning-making of individuals. From an individualist perspective it might be argued that such data is sufficient, whilst from a collectivist perspective it may be considered inadequate to a comprehensive understanding. I would argue, following Bandura (1977), that learning is an irreducibly social process, and that in relation to human development that the process of reforming social institutions or transforming structural constraints is beyond the scope of any individual. This normative position holds that the collective processes of group learning and collective action to remove unfreedoms are integral to a comprehensive understanding of development. In my research, focus groups were incorporated to allow exploration of collective meaning-making (Barbour and Kitzinger, 1994).

Three focus groups were held with the women film-makers and Asikana founders. Each focus group was composed of between five and eight film-makers plus one or two Asikana founders and myself. A total of 22 women participated in the three focus groups, 19 of whom were participatory film makers and three of whom were Asikana founders. All participants of the film-making workshops and all Asikana founders were invited to take part. The founders of Asikana were invited in order to elicit their views on the research issues, to provide them with an overview of the research process, and in order than the participants' research findings could inform organisational direction and

priorities. Focus groups can be problematic, in part due to group dynamics that affect whose opinions hold sway and how group consensus is formed (Flick, 2009). In my research I sought, through participatory methods, to ensure that each person's voice was heard and group ranking exercises were used to mitigate these risks as well as to document collective priorities, which Asikana leadership undertook to reflect in organisation planning.

In this research the use of interviews and focus groups are also preferred, over surveys and questionnaires, for their potential contribution to dialogic process. Feminist scholars including Ester Madriz (2000) have argued that, when used critically, focus groups can create the conditions for the emergence of critical consciousness and collective intent, focused on social change. Especially as part of a broader participatory process, interviews and focus groups can be designed as a means to enable people, whose opinion may not normally be solicited, to develop their 'critical voice' (see Chapter 8). These are objectives that both Sen (1999) and Freire (1970) see as valuable agency-building goals. The data generated by the focus group was richer in some regards, as the interaction of different opinions and critical dialogue process created the space for a deeper reflection and deliberation than the interview process; some individuals seemed more comfortable opening up dialogue with their peers than in the more formal setting of an interview, although there were exceptions where individuals divulged more in the interviews than in the more public group.

3.4 Critical Methods

In this section I will review the three methods that were selected for their potential to enhance critical-agency for development: specifically participatory action research,

participatory video and participatory workshops. First, I address the research challenge of investigating a phenomenon that lacks definition, or put another way, how do we know critical-agency when we see it?

3.4.1 Researching Critical-Agency

If we are to take seriously the claim made by Dreze and Sen (2002, 2013) and by Freire (1970) that critical-agency is central to any agency-based process of human development or social justice, then incorporating processes that enhance critical-agency into development initiatives is desirable. Yet how can we adequately enhance or study critical-agency when there is no clarity about its definition or contents? In order to identify critical-agency empirically we must first have an idea of what it is that we are looking for. In the existing literature the concept of critical-agency is used without explicit definition but a literature review made it possible to construct a working definition of *'people's ability to reflect collectively and to voice critique about structural constraints on their freedoms and to act with others to overcome them'*. This definition serves to draw attention to critical-agency's two key moments of critique and of action. Dreze and Sen's initial (2002) concept of critical agency focused on the former - people's questioning of prevailing norms and values. A decade later, Dreze and Sen's (2013: 232) concept of critical agency became linked to action: *"the role of women's informed and enlightened agency [includes] the power of women to overcome unquestioningly inherited values and attitudes"*.

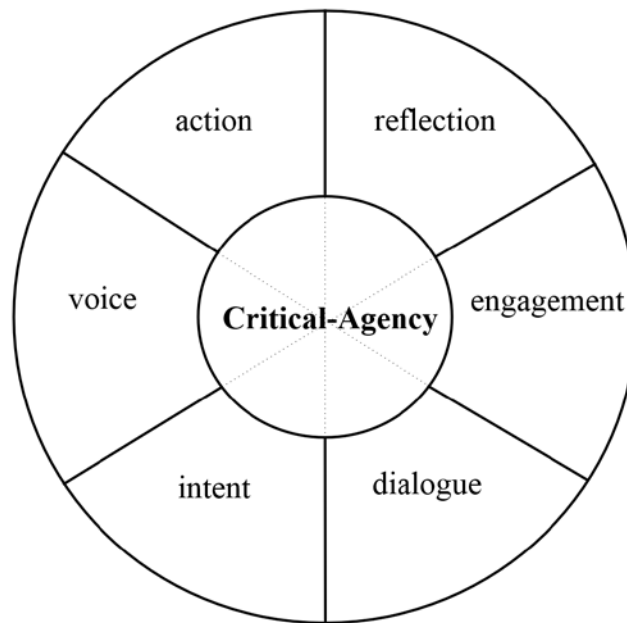


Figure 6. Provisional Elements of Critical-Agency (source author)

In addition to critical dialogue, Freire (1970) emphasises the need to engage critically with participants lived experience of injustice. As discussed in Chapter 2. Freire emphasises the need for both reflection on action as well as action on reflection, highlighting the reflective and volitional elements of critical agency. Freire’s process of conscientisation is designed to evoke a progressive voicing of critique and a ‘naming’ of injustice and the groups’ collective intent for change. These six core themes of reflection, engagement, dialogue, intent, voice and action also emerged strongly for my review of the existing literature on participatory video from a wide range of authors (as illustrated in Table 7). I therefore used them to build my provisional model of the constitutive elements of critical-agency (see Figure 6.) and used this to design the questions in my interview and focus group guides⁴¹.

⁴¹ Interview and focus group guides are included as Appendices 2 to 4

3.4.2 Participatory Methods

Having accepted the conceptualisation of Sen (1999, 2002) and Freire (1970, 1974) of development as an agency-based process of human development, in determining the research design I gave attention to identifying research and development processes that claimed to favour agency and participation. This section briefly reviews the recent debates around participatory development processes before outlining the particular methods adopted in this research.

In the later 1970s and early 1980s, in response to what they perceived to be a foreign expert-led⁴², top-down, and invasive mode of doing development *at, and on*, disadvantaged people, a group of Southern scholars and practitioners developed alternative approaches to doing development and development research *with, and by*, disadvantaged people themselves. These alternative 'participatory' approaches were characterised, in part, by a greater active role for disadvantaged people in determining the ends and means of the development and research initiatives being implemented in their name. Robert Chambers (1983, 2002, 2005) was central in bringing to the attention of the anglophone development academy the work of participatory practitioners like Freire (1970) and Fals-Borda (1979) in Latin America, Tandon (1981) in Asia, and Swantz (1982) in Africa, who were challenging dominant development and research practices.

Participatory development became mainstream by the 1990s and was incorporated as

⁴² Whilst it is fair to characterise much development research as foreign expert-led, this is not to deny that research led by local privileged 'elites' can also be problematic – whether it happens in communities in the UK or in Zambia. Examining the various intersecting dimensions of privilege and power possible would be an interesting potential area for further research.

'best practice' by development institutions and funders. Mohan (2001) and other contributors to *The Tyranny of Participation* (Cooke and Kothari, 2001) have shown how the co-option, main-streaming and compulsion to include 'participation' in funded development initiatives resulted in a dilution and corruption of the original radical intent of participation. Hickey and Mohan (2004) produced a balanced response to Cooke and Kothari (2001) in *Participation: from Tyranny to Transformation*. Whilst not negating the critique of Cooke and Kothari, Hickey and Mohan set out, in this edited collection, to recover and re-politicise a radically progressive 'participation' and to clarify the ways and circumstances in which participation could again be transformational and emancipatory. Their co-authors argued persuasively that this could be accomplished by embedding participation within wider political processes that confront injustice (Kelly, 2004), and by returning to a focus on building critical consciousness and agency through Freirian practice (Waddington and Mohan, 2004).

In my research, participatory methods are employed in this later sense to enhance people's critical-agency to overcome structural (dis)advantage. This process was not 'parachuted in' but embedded within Asikana's wider programme of challenging gender inequality in Zambia's male-dominated ICT sector. Asikana include 'participatory methods' within their own organising principles (Asikana Network website). I employed participation for its intrinsic value but also as an instrumental means to enhance critical-agency (Freire, 1972; Waddington and Mohan, 2004) and to confront gender injustice (Kelly, 2004; hooks, 2000) as the following sections will detail.

3.4.3 Participatory Action Research

Participatory action research is a branch of action research, so it is worth reviewing here

the main elements of action research. Kurt Lewin (1946) is recognised as having originated the term 'action research' to describe a process in which researcher and stakeholder groups work together in an iterative spiral of planning, acting, observing, and reflecting to devise improved outcomes (Reason and Bradbury, 2006). The term 'action research' describes the iterative process illustrated in Figure 7, which links research to action, and not the normative direction of research intent. In this understanding action research is agnostic as to the direction of change produced.

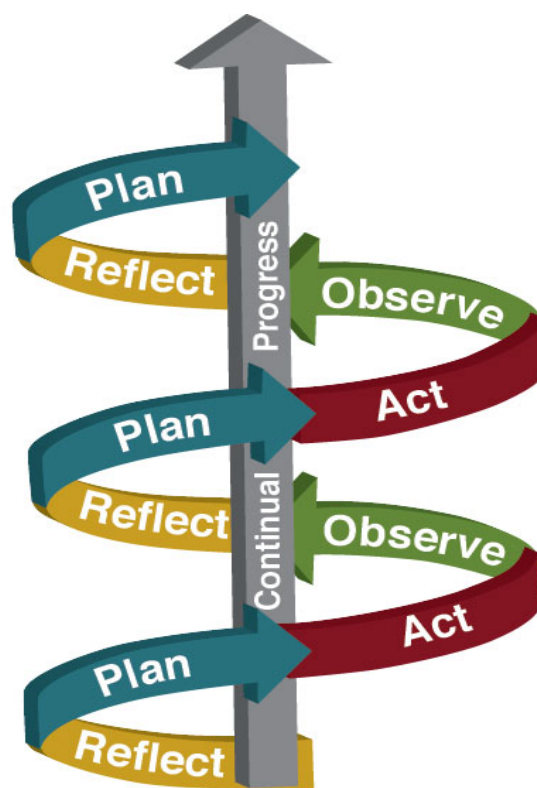


Figure 7. Action Research Cycles (source valenciacollege.edu)

Participatory action research can also be seen as one approach within the broader field of critical ethnography. Critical ethnography is an explicitly political approach to research that is intent on emancipatory change (Thomas, 1993). Madison (2012)

characterises critical ethnography as beginning with “*an ethical obligation to make a contribution toward changing conditions toward greater freedom and equity*”. Critical ethnography applies critical theory to research practice in order that prevailing norms, values and structures of constraint are examined to reveal vested power interests in a way that echoes Freire's 'reading of the world' (Freire, 1970). According to Thomas (1993: 2) “*Critical ethnographers describe, analyse, and open to scrutiny otherwise hidden agendas, power centres, and assumptions that inhibit, repress, and constrain*”. This critical approach allows researchers to bring to light underlying and obscure operations of power and control (Denzin, 2001) that are presented as not in need of further study and often seem too powerful and obdurate to be changed (Schutz, 1972).

It is a distinguishing feature of participatory action research that effort is made to engage disadvantaged actors as active co-researchers and agents of social change. It is also important that to participatory action research that disadvantaged participants (as opposed to researchers alone) are active agents in the research process and co-owners of the data, its analysis, and the knowledge produced (McTaggart, 1997). By such means participatory action research intends that disadvantaged people themselves are active co-researchers in the investigation of their own reality to increase their own knowledge and ability to solve their own problems (Thomas, 1993). Participatory action research is not a specific methodology but rather an umbrella term for a range of participatory approaches to action research (Kindon *et al* 2010, Clifford 2010) in which researcher and participant co-researchers work together to investigate a problem, produce new knowledge, and co- determine action to improve the situation (Wadsworth, 1998).

The left hand column in Figure 8 illustrates how participatory video is one element of

the participatory action research approach adopted in this research, alongside participatory workshops and focus groups. Asikana members were involved in co-determining and authorising the research design. Their members were directly involved in data collection and analysis using participatory video, participatory workshops and focus groups. The new knowledge produced was fed back to Asikana Network to inform their on-going planning and activities. Whilst participatory action research is the central methodological approach adopted in this research Figure 8 also illustrates those additional research elements that fall outside its definition.

Fals-Borda and Rahman (1991) characterise participatory action research as a process in which participants are involved *at every step* through to research design and the interpretation of data to the publication of findings. By way of critique, my research could have been *more* participatory; participants in my research could, for example, have been more involved in determining my research design or research methods at an earlier stage in the process, however, whilst this might have been desirable, the need to change the research location and constraints of the PhD process made this impractical in this case. In my research, participants did co-determine the thematic subjects about which they produced films, and the questions they asked; the decision to question men about discrimination in the technology sector was entirely their own initiative. From this perspective it would be accurate to say that my own research design 'draws upon elements of participatory action research'. As well as being more participatory than action research, I argue that participatory action research is a more critical practice than action research, at least as conceived in this research, with the researcher intent to enhance critical-agency.

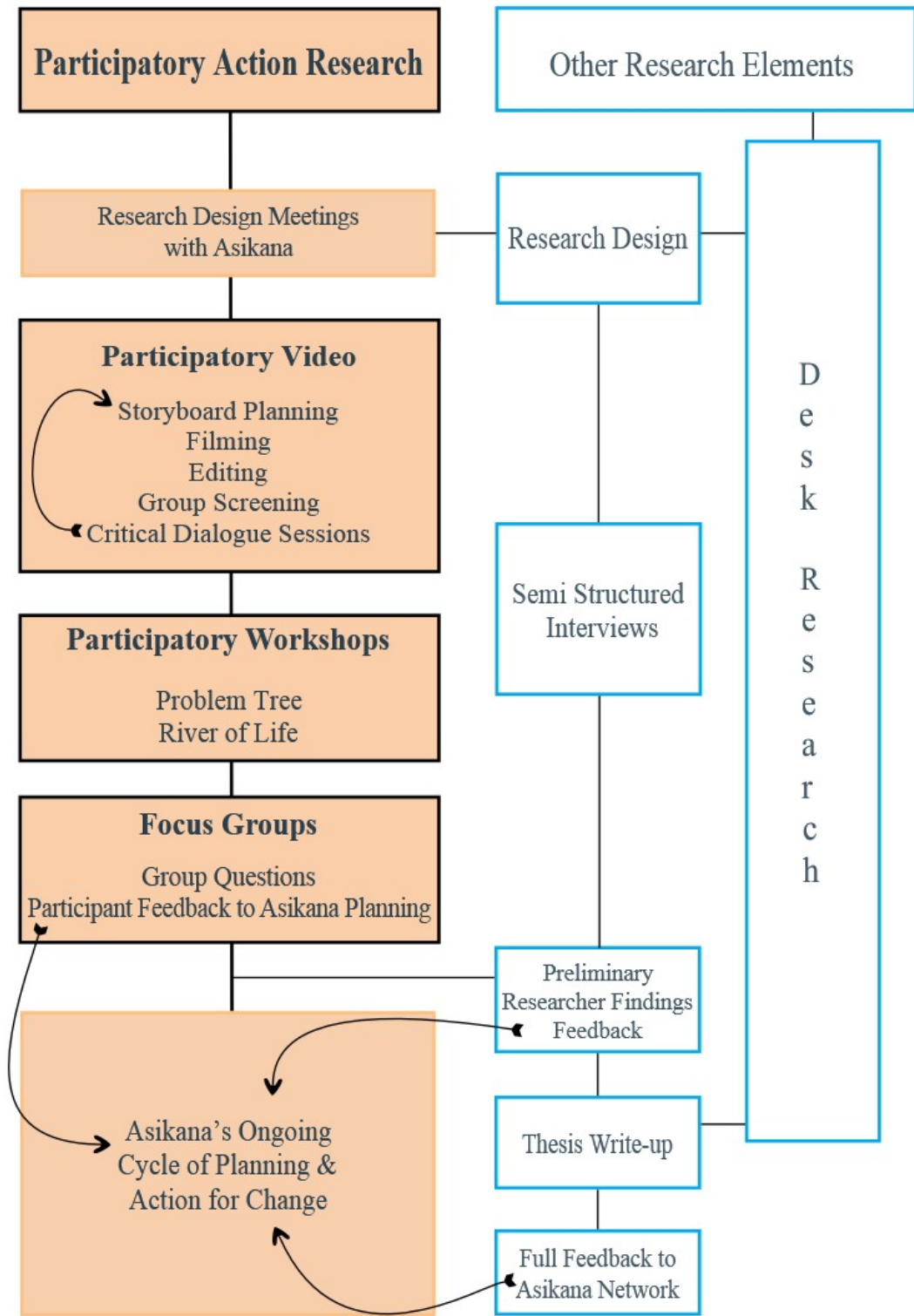


Figure 8. Participatory Action Research Elements (source author)

Buskens (2014), in her analysis of researcher intent and research methods (illustrated in Table 3.) argues that research methods are under-determined by researcher intent. Participatory action research can be used productively in research that has conformist, reformist or transformist intent. Perhaps for this reason, Kemmis and McTaggart (2005: 272) distinguish the work of Southern activist-scholars including Freire, Tandon and Fals-borda with the term 'critical emancipatory action research' and suggest that *critical* participatory action research needs to enable co-researchers, both individually and collectively, to identify any unjust social structures that constrain their self-development and act together to change them. Just as it may be useful to view action research and participatory action research as points on a continuum distinguished by degrees of participation, it may also be useful to view participatory action research and 'critical emancipatory action research' as points on a continuum distinguished by degrees of criticality, rather than as fundamentally distinct categories. My research could have been more critical; it would have been possible, for example, to spend more time excavating structural power interests and less time on honing video editing skills. I might have used my White⁴³ privilege to insist on going into more critical depth with participants. As a White European with privileged education and skills, and with the economic ability to bestow camera and laptop equipment, I could have used this leverage to impose my interests above those of Asikana. Instead I tried to strike a balance between meeting the expressed needs of Asikana members for skills training and the research aim to jointly produce new knowledge and critical awareness of discrimination against women in Zambia's technology sector. Members of Asikana Network became co-researchers, using

⁴³ In capitalising White here I am following the convention of acknowledging that what is being referred to is not an empirical skin tone but rather a social and political construction of White/Black as artificial binary categories that serve the interest of White supremacy. In a related but separate argument African American and Black American are capitalised as proper nouns – on the same basis so should White be capitalised – as it is a proper noun and not an adjective. This convention is established by the American Psychological Association as a style guide followed by other U.S. communications journals.

video to interview peers about the barriers faced by women in ICT in Zambia and created their own YouTube channel to disseminate their findings⁴⁴.

3.4.4 Criticisms of Participatory Action Research

Participatory action research can be critiqued due to the alleged bias related to the political commitment of the 'activist researcher' (Choudry, 2014). By being invested in the issue, a researcher may lose their critical distance and risk presenting it in too positive a light (Walsham, 2006). In many ways the politically committed activist researcher is the antithesis of the dominant positivist ideal of the researcher as a 'neutral' detached observer applying a technical rationality in pursuit of an objective 'truth'. For this reason it is understandable that participatory action researchers are charged with bias and claims that their findings are inadmissible. Yet from a critical perspective it is possible to argue that all researchers have interests, biographies and biases, irrespective of their research methods. Archbishop Desmond Tutu has argued that it is impossible to be neutral in the face of injustice, saying *"If you are 'neutral' in situations of injustice, you have chosen the side of the oppressor"*. Walsham (2006: 322) makes a related point about longitudinal research saying that he felt a moral imperative to offer practical help and advice to research participants, both in compensation for the time given by them to the research process, and because *"a refusal to offer constructive suggestions would reflect a lack of concern for the people in Indian districts, whose economic prosperity is among the lowest in the world"*. From this perspective whether a person acts or does not act, speaks or does not speak, no researcher is ever a neutral, disembodied observer and all approach their research in ways affected by their personal biographies, dispositions,

⁴⁴ <https://www.youtube.com/user/AsikanaNetworkzambia> Participants decided for themselves which films to keep private and which to make public. I never had the password for their channel or played any part in uploading their films. To respect their autonomy this research only analyses those videos that they chose to make public.

beliefs and values, be they conscious or unconscious, philosophical, political or pecuniary (MacIntyre, 1982; Denzin, 2001).

From a critical perspective it is also possible to argue that everyone involved in the field of development is an activist to some extent. Development is by definition a process of promoting social change. So to be involved in development is to be an activist to some lesser or greater extent. Likewise, if it is true that all social change is political to some greater or lesser degree, then from this it follows that all development actors are political activists to some degree. Development practitioners and researchers do not exist outside of society and their situated actions and inactions inevitably have consequences, intended and unintended (Fals-Borda, 1979).

Taking these factors into account what becomes important is not trying to be 'neutral' or feigning neutrality, but rather trying to be conscious and reflective as researchers about our biases and positionality (see section 3.6 on my own positionality). It is also important to remain open to new information and perspectives, and to be rigorous in designing, documenting and disseminating research in order to ensure that research is open to scrutiny, replication and peer review (Baxter and Eyles, 1997; Hay, 2010).

In my research I choose a critical ethnography approach as I conclude that 'neutrality' is an illusion and that, in the context of development inequities and injustices, inaction and action are equally political acts. I used participatory action research in this instance as I concluded that co-researching alongside the people most closely affected by the issue held the best potential to capture the meanings that constituted people's actions. I considered it to be an effective means to produce new knowledge within the groups of

actors best placed to apply that knowledge in ways that they had reason to value. I chose participatory action research as a methodology because my literature review led me to conclude that it had the potential to enhance people's critical-agency for development. Participatory action research provided potential as a means of collective inquiry, to enhance people's ability to '*experience their capability and power to produce knowledge autonomously*' (Fals-Borda and Rahman, 1991; 17) and to inform collective action to overcome structural (dis)advantage.

3.4.5 Participatory Video

Participatory video has already been briefly introduced in Chapter 1. and is covered more extensively in Chapter 4., so here I will confine myself to a few brief remarks about the role of participatory video as a method to enhance critical-agency.

The term participatory video refers to a range of distinct approaches to collaborative film-making (High *et al.*, 2012). Practice varies with regard to the range and degree to which elements of the film-making process are participatory; there is also a range of degrees to which participatory video processes are 'critical' in Geuss' (1981) sense. From the perspective of enhancing critical-agency I would argue that it is important that participatory video initiatives are not evaluated, as they often are, on the basis of a final film product (Plush, 2012), but rather according to an evaluation of the criticality of the process, and the extent to which the constituent elements of critical-agency are evidenced by film-makers. Freire's process of critical conscientisation is referred to in all of the key participatory video texts (Shaw and Robertson, 1997; White, 2003; Lunch and Lunch, 2006). Tamara Plush (2012) is amongst participatory video practitioners

with an explicitly critical practice, which focuses on the production of a spiral of knowledge production, consciousness raising, and action to transform power relations. Recent literature on participatory video has become less celebratory and more critical about the extent to which the radical ideals of participatory video are achieved in practice (Milne *et al*, 2012; Roberts and Lunch, 2015).

In this research, participatory video was the practice adopted, within the wider participatory action research approach, to directly involve Asikana Network in data collection and analysis about their own experience of discrimination and (dis)advantage. Women used participatory video to collect for themselves data about women's experiences in Zambia's technology sector. Critical dialogue sessions involved Asikana members in collective analysis of their data and in the production of new knowledge about the root causes of the (dis)advantage experienced. Each day's critical dialogue session discussed the content of the films produced the previous day. The discussion would produce new generative themes which would become the subject for the next day's film-making assignment. Each such iteration deepened analysis and produced new knowledge. This critical practice of participatory video was one element of the wider participatory action research approach designed to open to scrutiny the often hidden structural basis of (dis)advantage and to identify possible action for transformative change. In doing so, participants built their critical-agency to identify the structural causes of gender injustice and to inform collective intent to overcome them.

Chapter 4 analyses in more detail the theory and methods of participatory video used by Asikana Network as well as the claimed benefits and experienced limitations of participatory video. The next section introduces the participatory workshops, also used

as part of the broader participatory action research design (Figure 8).

3.4.6 Participatory Workshops

Two standard participatory group exercises were used to complement the participatory video to generate critical dialogue. These participatory exercises are common tools in community development and organisational capacity-building work.

The 'river of life'⁴⁵ is a standard participatory exercise in group story-telling or collaborative narrative production (Lelo, 2006). The outline of a winding river is drawn and the group are asked to imagine that the river represents the course of their organisation's development. Using this metaphor, participants contribute suggestions about what streams have contributed their waters to the river, what vessels have navigated it, and what obstacles have been negotiated, where it is heading and what would improve it. By extending the metaphor, participants socially construct a collective understanding of their organisation and produce shared motivations and aspirations that can shape organisational growth. In my research the exercise was selected to provide insight into the meanings that participants gave to membership of Asikana Network and how membership contributed to their sense of belonging, purpose and sense of agency.

The problem tree⁴⁶ is another group exercise that uses the metaphor of a tree to focus a discussion about the root causes of challenges and opportunities facing a group of people. It is particularly useful where you want to ground the discussion in people's

⁴⁵ River of Life example <http://www.kstoolkit.org/River+of+Life>

⁴⁶ Problem tree example <http://www.odi.org/publications/5258-problem-tree-analysis>

practical experience of the effects of a problem and your objective is to uncover root causes. Problem trees are used in a technical and instrumental way by systems analysts in corporate planning processes. In participatory methods however the dialogic process is often as valuable as the end product. Much of the value is in the discussion, dialogue and debate (Hovland, 2005) by which means participants develop their critical abilities, to excavate beyond taken-for-granted justifications for the status-quo and produce new knowledge and understanding about the mechanisms by which unequal relations are socially constructed and the power interests being served.

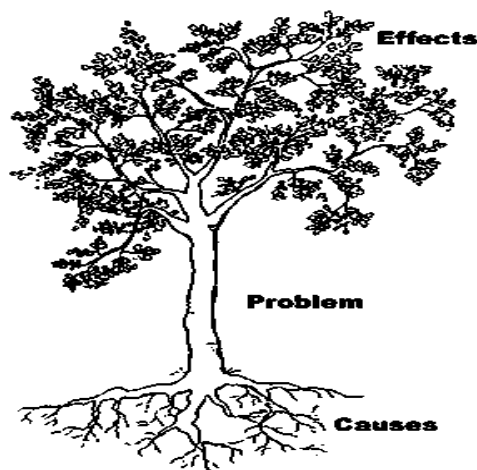


Figure 9. The Problem Tree (source FAO, 2004)

In my research design this exercise was of particular importance in exercising participants' critical abilities to problematise their practical experiences of discrimination and relate them to strategic gender interests. This enabled them to produce the 'feminist consciousness' about the structural basis of male domination that Molyneux (1985) argued was a precondition for feminist action to transform the

situation and which was discussed in the previous chapter.

Many of the criticisms of participatory processes made by Cooke and Kothari (2001) can be made of these participatory techniques. There is nothing magical about the mechanics of participatory processes that guarantees a 'development' or emancipatory outcome. As critical scholars have argued outcomes of participatory processes depend in part on researcher intent (Buskens, 2015) and on being embedded in a wider process of political engagement (Williams, 2004). Based on the literature review, it is not my conclusion that all good processes are maximally participatory, or that all good research is participatory action research. However, based on my understanding of the wider context of Asikana Network's range of activities, and on my researcher intent to enhance critical-agency for development, I concluded that critical participatory methods could be constructive in enabling participants to build a shared critical analysis of their situation and collective sense of action priorities in Asikana Network.

3.5 Data Analysis

Researchers are often clear about how they collected their data but silent about how they analysed it (Bryman and Burgess, 1994). Baxter and Eyles (1997) are amongst those recommending greater transparency about data interpretation methods used. In this section I intend to be explicit about my own data analysis. Flick (2009) argues that coding can be considered part method and part art but the basic process involves discerning patterns, relationship and concepts in data and then interpreting and organising them into explanatory theory (Strauss and Corbin, 1998).

My data analysis began in the field. By re-playing interview recordings whilst reading interview transcripts I began the process of open coding data to develop conceptual themes (Flick, 2009). At this initial stage data analysis served to inform modification of the interview guide, rewording questions and identifying the most profitable prompts. The inductive process of moving from data to open codes and themes toward theory, however, stimulated an inverse process of reviewing new academic theory, generating theoretical codes and relating them back deductively to emerging themes and data.

My original research design, for example, had not contemplated gender issues as a central concern; however the priorities of research participants and the context of Asikana Network demanded significant revision. As a consequence the overall research dynamic included an interplay between inductive and deductive processes; the theory implicit in my critical activist ontology and pre-departure literature review was inadequate for dealing with the empirical reality and so was supplemented by further desk research. Based on my experience, theory-building is not a uni-directional inductive process from field data to new theory-building, as I interpret grounded theory to suggest (Glasner and Strauss, 1967), but in practice oscillates dialectically between induction and deduction (Hay, 2010).

Once the field research and transcription process was complete I uploaded the voice recordings and transcripts of the videos, interviews, focus groups and research diary entries into the qualitative data analysis software, *NVivo*. This facilitated rapid data navigation, manipulation and retrieval. An iterative process of inductive open coding and deductive theoretical coding, filtered via my research aims, gradually gave rise to the themes that shaped the sections of the empirical chapters of this thesis.

Notwithstanding the dialectical oscillation between induction and deduction noted above, those themes arising primarily from open coding during data analysis of interviews and focus groups are reflected mainly as section headings in sections 6.1, 7.1 and 7.2. whereas the themes arising primarily from theoretical coding were used to structure sections 8.1 through to 8.6.

In constructing the narrative of this thesis it was important to me to retain the original understandings of the women research participants in their own words (Baxter and Eyles, 1998) through the extensive use of quotations in the empirical chapters. In order to visually mark out the importance of the voices of Zambian women co-researchers their quotations are indented and italicised to give them their due prominence.

Quotations are taken from semi-structured interviews unless otherwise indicated. When quotes come from one of the three focus groups this will be spelt out or abbreviated to FG1, FG2 or FG3. When a quote comes from the transcript of a film the title of the film will be shown and a link to view that film will be found in the footnotes. Otherwise the quotation reference will use the codes in Table 5 in the standard format:

pseudonym + unique ID-number + code

If a codes does not end in M (for Macha) then it always relates to a research participant based in Lusaka and related to Asikana Network.

Participatory Videographer from Macha - female	PV1M or PV6M
Participatory Videographer from Asikana - female	PV2, PV3, PV4, PV5 or PV7
Asikana Network Founder - female	ANF
Asikana member - not a videographer - female	NPV
Male Member of BongoHive	MMB

Table 5. Participant ID Codes (source: author)

3.6 Positionality

It was part of Geuss' (1981) definition of a critical theory that practitioners are critically reflective about their own theory and practice. One aspect of this reflexivity is positionality (England, 1994; Rose, 1997). It is important to reflect on my positionality as a White, British, educationally privileged male from a working class family, especially given the research context of an organisation of young Zambian women (Kindon *et al*, 2010). Fieldwork is carried out in the context of relationships (Maguire, 2001) and those relationships are asymmetric along multiple dimensions. Our bodily presence in the place of research makes identity apparent, revealing key markers of social power such as 'race', sex, class and age (Kearns, 2010).

In my own research my ability to be in Zambia and to conduct research was possible, in part, due to my relatively advantaged socio-economic position and to privileged education access, to my Whiteness, to my Britishness, and to my maleness. My former position as the CEO of an NGO that provided material resources, as well as my position as a PhD researcher from the University of London (both themselves reflections of my

privilege and advantage) conferred status on me that gives me power to enter the field and confidently ask for cooperation in research. At the same time these same markers define me as 'other' and 'an outsider' and created distance between me and the much younger Zambian women participants that affected my ability to build rapport and relationships of mutual trust and respect.

Reflecting on these elements of privilege I was concerned that my research was not an extractive process (Fals-Borda, 1998; Fals-Borda and Rahman, 1991) designed exclusively to further my own privilege in terms of my own knowledge, qualifications, publications, status and career development and income opportunities. I attempted to design the research around themes of importance to the host organisation and participants, and to select methods whereby the women of Asikana Network could become co-researchers producing knowledge that they had reason to value and which they had ownership of. I sought to validate my research findings by discussing them verbally and in writing with research participants (Hay, 2010). As Evans (1988) has argued (in Hay 2010: 257) “*any method is to a degree valid when the knowledge that it constructs is considered by stakeholders to be an adequate interpretation of the social phenomena that it seeks to understand and explain*”. Asikana founders attended all focus groups as a means of feeding the new knowledge produced by the research process into the organisation's priority and agenda setting. I expressed my gratitude for the time taken and knowledge shared to each research participant individually and by the provision of film cameras and laptops to the organisation.

Positionality also relates to the values and commitments that a researcher holds in relation to research participants (England, 1994). In an effort to disclose my biases and

philosophical, theoretical and political dispositions, as far as I am aware of them (Rose, 1997) it is relevant to say that my political disposition lies somewhere between anarcho-syndicalist, anti-capitalist and anti-racist feminist. I spent my twenties and thirties as a volunteer, activist and in leadership positions in the student movement, anti-apartheid movement and Nicaraguan Solidarity Campaign. At the time of this research I had I never been, a member, or supporter of any political party. I retain these commitments even as an armchair slactivist in my fifties, doing little more than muttering grumpily at the TV news. I am sustained existentially by the philosophical belief that people's collective agency can overcome systemic structures of (dis)advantage, discrimination and exploitation. In summary I am critical of the status-quo and am theoretically (if not actively) committed to transformational (structural) economic and political change. Having spent 25 years as a practitioner in not-for-profit development organisations working in Latin America and in Africa, and 4 years as a university lecturer, I embarked on a PhD as an opportunity to reflect in a sustained way on theory and practice.

Although it is not a self-definition I have ever used, in the context of the proposed research, I accept the reductive label of 'activist researcher'. The purpose of my engagement in research is the hope to be able to do more than interpret the world but to be able to play an active role in changing it. In reflecting on this critical activist ontology (Ollis, 2012) I recognise the danger of my positionality imposing my personal commitments over and above agendas authentic to the local constituency. I know from my professional experience how easily facilitation can become manipulation. Negotiating these biases is problematic and requires mindful reflection. At the same time I believe that if we are open and honest with each other, people with diverse biases and motivations can act responsibly and professionally to produce rigorous research and

valuable development processes.

In my research I was mindful of Freire's (1970) warning that it is the task of the facilitator to avoid imposing their own opinion on the group process (in what he calls 'cultural invasion') and to confine themselves to the role of leading a problem-posing dialogue designed to produce new participant knowledge that enlightens the understanding of both participants and facilitator, and which suggests new ways of acting (Freire, 1972, 1995). The task of the facilitator according to Freire is to use their 'outsider' perspective to open the discussion to new ways of seeing. In my research I aim to use participatory video and critical dialogue to create this space for new ways of seeing and 'reading the world'.

I found the process of writing a research diary a useful way to reflect in this regard. At one point in the process this regular reflexive process helped me to recognise that my own positionality and preconceptions of the women of Asikana Network as 'victims of oppression' had made me blind to their agency as producers of collective agency. I recognised that my desire to excavate the root causes of injustice made me blind to the branches and leaves that Asikana were constructing above ground. Recognition that both elements were important led me to modifying questions and exercises to capture and validate both the women's agency in producing structures of opportunity as well as subjection to structures of constraint.

3.7 Research Ethics

“Critical ethnography begins with an ethical responsibility

to address processes of unfairness or injustice within a particular lived domain.

By 'ethical responsibility' I mean a compelling sense of duty and commitment based on principles of human freedom and well-being”

(Madison, 2012: 5).

In addition to the ethical responsibility to address (dis)advantage and injustice, there is an ethical need to reflect critically on our research practice and to conform to the University of London code of research ethics. The area of research ethics is an area of increasing complexity and scholarship (Flick, 2009; Walsham, 2006) and a constructive tension exists between relying on formalised codes and rules and developing competencies in ethical judgement (Unwin, 1997; Hollow, 2010). No one statement can possibly cover the range of ethical matters confronted by researchers (AAG, 2009) and therefore the ability of individual researchers to interpret teleological and deontological rules for the infinite range of possible contexts and eventualities is important. This is evident, for example, in the case of informed consent.

Informed consent is the valuable principle that interviewees should be adequately informed about the possible applications of research data and provide their consent for those applications prior to interview. Research codes often require signed consent forms. However levels of literacy and local cultural conventions may mean that signed consent would distort sampling to favour the opinions of educated elites, which in turn would favour representation of certain age, gender and class compositions. Recent revisions of guidelines acknowledge such contextual complexity and make such consent an aspirational principle and allow researchers the scope to make judgements about adequate consent (SRA, 2003; AAG, 2009).

In my research, following Coomber (2002) prior to beginning every interview and focus

group, participants were reminded of their rights and freedoms. Informed consent was obtained from all participants after providing an explanation of the purposes for which data could be used. Informed consent was audio-recorded rather than written. This is because in the local context an oral culture prevails. Each interview and focus group began with my reading the statement of informed consent⁴⁷ followed by participants giving their informed consent. It was explained that taking part in interviews or focus groups was entirely voluntary⁴⁸, that they could decline to answer any question, were free to end the interview at any time, and that their own recording and transcripts would be made available to them on request (one such request was fulfilled).

In research such as this, concerned with the issue of ‘false consciousness’, the question arises whether research participants can ever genuinely give ‘informed consent’? If we argue, as I do in this thesis, that participants’ consciousness is socially conditioned in complex ways which often do not represent their best interests, then is it ever possible for the respondents or the researchers to fully understand the potential implications of giving permission for their experience and views to be used in research outputs? Interviewees may not be fully cogniscent of the potential intended and unintended outcomes of the details of their experience and actions being circulated in research papers and presentations. It is possible to imagine both positive and negative outcomes at the micro and macro level – anger of family members or institutional and policy changes. In a social world in which individuals all operate on the basis of partial knowledge, and in which no person is fully critically conscious, what does ‘informed

⁴⁷ In fact informed consent was explained twice to each participant, first verbally without recording, and then having gained their permission to record, it was repeated to produce the audio-record of consent. The wording of the informed consent is detailed in Appendix 2.

⁴⁸ One person declined to be interviewed which was of course respected.

consent' mean? Acknowledging these complexities should not, I argue, reduce us to a state of paralysis in which researching injustice is not conducted and in which progress becomes impossible. Instead, acknowledging these complexities should cause us to renew our ethical commitment to research which involves the objects of research as the active subjects of research, as well as to research processes that involve all research participants in a critical questioning of the often hidden and structural factors that are formative of consciousness and (un)freedoms.

Rather than decontextualise all of the issues raised during this research process and present them in this section, other instances of research ethics are analysed as relate to other sections of this thesis. The next section, for example, addresses the ethical consideration of consuming women's scarce 'free time' on my research as well as whether to pay research participants' a stipend or to their cover travel costs.

3.8 Limitations and Learning

When I originally conceived of the research design I planned to work with a single cohort of participants over a period of months. This seems naïve in retrospect. Expecting participants to commit their small amount of free time over such an extended period ignores the realities of young women⁴⁹ in Zambia. As I will show in later

⁴⁹ The use of the terms girls, women and ladies as used by Asikana members themselves was sometimes confusing and uncomfortable for me. In the UK I would only use the term girls for females who were (or appeared to be) under 16. For me the term women is preferable in order not to disrespect or infantilise adult women. I never use the term ladies because it has class implications in Britain. However in Zambia the word 'Asikana' itself translates as girls - despite their membership being primarily in the 18-23-year age range - and Asikana members often used the terms girls and ladies in self-reference. As a result I resorted to using the term 'young women' to refer to Asikana members as this offended no one in Zambia and yet was consistent with my British-feminist desire to avoid use of ladies altogether and to avoid using girls to refer to adult women.

chapters these young women bear an inequitable burden of responsibility for domestic cleaning and cooking that made their participation challenging in ways not experienced by their male peers. In practice it was not practically possible to maintain the unpaid involvement of participants beyond five days. In order to attend at all participants often had to gain permission, rise extra early to complete chores and secure funds for travel expenses. Reflecting ethically on the time sacrifice that I was asking of these 'time-poor' (Bardasi, 2009; see section 6.1.2) young women, I felt compelled to modify the research design to reflect their realities and preferences. Whilst the time available was sufficient to build rapport and to analyse participants' understanding on key research issues the practical possibilities were finite. Learning from this experience, in future engagements it would be worth exploring the provision of funding for stipends and travel expenses in order to extend the period of engagement with each cohort. This would allow the potential for participants to develop greater technical competences, produce a more sophisticated analysis of social structures, and further enhance their critical-agency for change. There is a practical limit to what is possible within the scope of a five-day workshop, as well as a practical limit to what is possible with participatory video alone (Walsh, 2012). The provision of travel fares and attendance stipends is not however without ethical concerns. Asikana Network organise events and training amongst their membership. It is not their policy to provide travel fares and attendance stipends, nor do they have any financial resources to make this possible. Therefore consideration of any such provision might properly be the subject of deliberation within Asikana being mindful of its repercussions for their other activities.

3.9 Conclusion

This research adds to the existing literature by providing a case study of women's use of ICT4D to tackle gender injustice in Zambia's ICT sector. Participatory action research was selected as an approach to enable the women of Asikana Network to produce for themselves new knowledge about the (re)production of gender discrimination and disadvantage in Zambia, its structural causes, and potential action to overcome it. Participatory video was used to create a new space for critical dialogue and voice about these issues. The research findings from this case study are contextually limited and not statistically generalisable. Each participatory video engagement is a re-invention of process to reflect the specific contingencies of each situation (Shaw, 2012). It is possible that elements of the Asikana Network experience are theoretically generalisable or 'transferable' to similar situations, but that is a matter for other practitioners and researchers to determine. However as Flyvbjerg (2006) has argued, building up a corpus of case studies is intrinsically valuable in helping researchers to explore key issues in social science. It is intended that this case study will serve that purpose. Whilst presenting findings about the use of participatory video in one context will not allow us to generate predictive rules about the outcomes of its use in another context, I hope that presenting findings about how it does, or does not, engender critical-agency for development in this case will prove useful to other scholars/practitioners who will be able to generate their own conclusions from the case study, and its applicability or otherwise to other research and development settings.

In working through my own researcher intent and in determining research methods I have found Buskens' (2014) framework for gender and development research to be

extremely useful in thinking through the methodological and conceptual issues in this research. Buskens' matrix (Table. 3) makes it clear that any research method can serve more than one research intent. This under-determination explains why a researcher's choice of theory and method is, at least in part, about which they *feel* offers them insight, about which one *'speaks'* to them (Walsham, 2006: 325). I used the framework to determine what work I wanted my research to do in the world (horizontal axis), and to align that research intent with corresponding research methods (vertical axis). In terms of research intent, I wanted to design research which had 'transformative potential' (Young, 1993) to address the root causes of gender inequality. In addition to the 'conformist' development of technical skills and the 'reformist' challenging of gender norms, it was important that the research had the transformative potential to tackle the power structures that (re)produce unequal gender relations. Also, in terms of methods I wanted to use practices that Buskens' labelled 'critical-emancipatory' in which women were enabled to enhance their critical-agency to emancipate themselves from the unequal gender relations that constrain their development.

Although Buskens' (2014) framework was designed specifically for thinking about gender and development research, as I used it for this purpose in my own research, it occurred to me that it could usefully be adapted for work beyond gender alone, and beyond research alone. Whilst Buskens had developed the matrix to speak to unequal gender relations, it seemed to me that it might be used just as profitably to think through other unequal social relations such as those of class or 'race'. And although Buskens had developed the matrix to align research intent and methods, it seemed to me that it might also profitably be used to align the intent and methods used in ICT4D initiatives. For this reason I modified Buskens' framework to produce a matrix of ICT4D intent and

practice with the aspiration that it might serve as a means for researchers, practitioners and participants of ICT4D initiatives to think through, and talk about, their intentions for the work and as a means to align intent with appropriate practices. I have retained Buskens' three categories of intent (conformist, reformist and transformist) but I have replaced her three research paradigms with the three categories of practical human interest, which Habermas' (1972) argues constitutes the three paradigms (see Chapter 2, Table 2) and which Tim Unwin (2009) used as a theoretical framework in his book *ICT4D*. By merging these two approaches (as illustrated in Table 6. below) I have produced a matrix of ICT4D intent and practices (Roberts, 2015) for stakeholder of ICT4D initiatives to think through and deliberate about the full range of ICT4D technologies and initiatives.

I use this 'matrix of ICT4D intent and practices' as a framework in Chapters 6, 7 and 8 to analyse Asikana Network's conformist, reformist and transformist uses of various ICT4D activities – including participatory video. Chapter 6 examines Asikana activities which can be considered 'conformist'. Chapter 7 consider Asikana activities that may be considered 'reformist'. Chapter 8 analyses Asikana ICT4D initiatives which might be regarded as transformist. I plot all of these uses of participatory video and Asikana's activities considered in this thesis in a version of the matrix dedicated to that purpose (Table 11). First though, Chapters 4 and 5 examine participatory video theory and the research context of Zambia's specific social and gender history.

Intent/Practices	Conformist	Reformist	Transformist
<p>Techno-centric ICT4D</p> <p><i>Technical Control interests</i></p>	<p>Techno-centric ICT4D initiatives, addressing basic needs and services; that enable people to better cope with or conform to the existing unequal social relations of gender/'race'/class, whilst leaving the structures and interests that underpin them unchallenged.</p>	<p>Techno-centric ICT4D initiatives, addressing practical interests, that enable people to better reform the existing unequal social relations of gender/'race'/class, whilst leaving the structures and interests that underpin them unchanged.</p>	<p>Techno-centric ICT4D initiatives, addressing practical and strategic interests, that enable people to better transform the existing unequal social relations of gender/'race'/class, <i>and</i> the structures and interests that give rise to and support them.</p>
<p>Comms-centric ICT4D</p> <p><i>Practical Communicative interests</i></p>	<p>Communication-focused ICT4D initiatives addressing basic needs, and services, that enable people to better cope with or conform to the existing unequal social relations of gender/'race'/class, whilst leaving the structures and interests that support them unchallenged.</p>	<p>Communication-focused ICT4D initiatives addressing practical interests, that enable people to better reform unequal social relations of gender/'race'/class, whilst whilst leaving the structures and interests that give rise to and support them unchanged.</p>	<p>Comms-focused ICT4D initiatives addressing practical and strategic interests, that enable people to better transform the existing unequal social relations of gender/'race'/class, <i>and</i> the structures and interests supporting them.</p>
<p>Human-centred ICT4D</p> <p><i>Emancipation from Domination interests</i></p>	<p>Human-centred ICT4D initiatives, that enable people's production of <i>new knowledge</i> about basic needs and services that enables them to better cope with or conform to the existing unequal social relations of gender/ 'race'/ class, whilst leaving the structures and interests that support them unchallenged.</p>	<p>Human-centred ICT4D initiatives, that enable people's production of <i>new knowledge</i> about their practical interests that enables them to better reform the existing unequal social relations of gender/'race'/class, whilst leaving the structures and interests that underpin them unchanged.</p>	<p>Human-centred ICT4D initiatives that enable people's production of <i>new knowledge</i> about their strategic interests that enable them to better transform the existing unequal social relations of gender/'race'/class, <i>and</i> the structures and interests that give rise to and underpin them.</p>

Table 6. Matrix of ICT4D Intent and Practices (Roberts 2015)

Chapter 4. Participatory Video: Theory and Practice

This chapter analyses the theory and practice of participatory video in general before examining its situated use in this research by the women of Asikana Network. Shaw and Robertson (1997; 11) locate participatory video as an activity used predominantly with disadvantaged or marginalised groups that uses:

"video as a social and community-based tool for individual and group development ... to develop their confidence and self-esteem, to encourage them to express themselves creatively, to develop a critical awareness and to provide a means for them to communicate with others".

Shaw and Robertson (1997; 11)



Figure 10. Participatory Video with Asikana (photo credit: author)

4.1 Introduction

The information and communication technology of participatory video has become an increasingly popular development approach over the last fifty years. This is due, in part, to its claimed efficacy in generating development outcomes at the level of the individual, group and society. Unlike other kinds of film-making, participatory video involves handing over control of the film-making process to inexperienced users in order to enable them to express and represent themselves regarding issues affecting their lives. It is claimed that, among other things, this process can benefit participants' self-esteem and self-efficacy, enhance individual and collective agency, and serve as an effective mechanism to amplify the power of disadvantaged groups to influence or effect change in their lives. In recent years writing about participatory video has generally become less celebratory and more critical, questioning among other things, the extent to which control is handed over and scrutinising claims that participatory video generates social change (Milne *et al*, 2012; Roberts and Lunch, 2015).

4.2 Origins of Participatory Video

The earliest cited example of participatory film-making is the 1967 work by the people of Fogo Island, Newfoundland, facilitated by a team headed by Donald Snowden (Crocker, 2003). The film-makers set out to show that poverty could not simply be reduced to economic measures and that factors such as rural isolation and lack of access to information and communication media were also key to development (Quarry and Ramirez, 2009). The Fogo Process began by filming community members' views and screening them to members of other isolated communities on the island. Thirty-five

separate screenings to a combined audience of 3,000 islanders (60% of the total population) were used to identify key issues of common concern. The islanders' film was then shown to the Premier of Canada, and the Minister of Fisheries recorded a filmed response to play back to the community. By means of this film-mediated dialogue a revised programme of development was agreed for the islands that incorporated islanders' concerns. Whilst the precise relationship between the film-making and the resulting change is contested (Corneil, 2012), the islanders were able to improve intra-island communication, establish a fishing cooperative, increase employment and improve livelihoods (Snowden, 1984). By means of the participatory video process, islanders were able to articulate a collective position and affect a productive channel of communication with distant decision makers. Perhaps most significantly they were able to act together to bring about change that they valued (Corneil, 2012). The Fogo Process became a prototype in the use of information and communication technology to promote dialogue for social change and has since been used in many locations around the world (Crocker, 2003).

4.3 Participatory Video Theory

According to Shaw and Robertson (1997) alternative roots for participatory video practice can also be identified in the community arts movement of the 1970s and in the theory-practice of Paulo Freire. Shaw and Robertson note that video's potential as a tool for social action and development was recognised early in the 1970s by social workers and community arts activists resulting in the development of a vibrant independent video sector in the United Kingdom and in other countries. Whilst Freire never used participatory video himself, in *We Make the Road by Walking* (Horton and Friere, 1990:

88), Freire did suggest how video might be used in combination with critical dialogue to deepen participant's critical reading of their world:

“Give a camera to several people and say: 'Record what you want, and next week we meet together [to discuss the recordings] They were reading reality through the camera now it is necessary to deepen the reading and discuss with the group lots of issues that are behind and sometimes hidden trying to understand the concrete reality that you are in”.

(Freire in: Horton and Friere, 1990: 88)

In my research, the women of Asikana Network used participatory film-making in this sense - to 'read reality through the camera', and then in group discussion to 'deepen their reading' of the concrete reality of gender injustice that they experience. Much of the core literature on participatory video draws explicitly on Freire's (1970) model of conscientisation and uses participatory film-making as a means for groups to reflect critically on their social circumstances and to inform action for structural change (Shaw and Robertson, 1997; Braden and Huong, 1999; White, 2003; Lunch and Lunch, 2006, Shaw, 2012). In this research I draw explicitly on Freire's practice by using participatory video to create a space for Asikana's women members to enhance their critique of their social circumstances, and also as a means to identify potential action to challenge the gender inequity found in Zambia's technology sector.

Despite its radical roots in the 1970s and 1980s, participatory video practice was arguably diluted in the 1990s as participatory methods were progressively, *“co-opted for*

a range of agendas other than those with the needs of the poor and oppressed at their heart,” (Cooke, 2001: 120). Participatory methods were often made a condition of institutional funding that effectively compelled grant-funded development actors to claim that their initiatives were 'participatory' in various ways, Cooke and Kothari (2001) termed this a 'tyranny of participation'. International development NGOs schooled their staff in participatory methods especially during the 1990s leading to what Su Braden (1998: 94) referred to the 'new participatory orthodoxy'. What we might call 'compulsory participation' resulted in a proliferation of claims of participatory process that varied in authenticity, and included attempts to manipulate 'participatory' processes in order to legitimise top-down agendas (Shaw, 2007). Scholars such as DeNegri (1999) and Bery (2003) have argued that the wide range of participatory practices are better understood as extending along a continuum. Bery's continuum of participation ranges from 'co-optation' and 'compliance' where participation is tokenistic and controlled top-down, to 'co-learning' and 'collective action', where the process and agenda is controlled primarily by local actors (bottom-up). In this research design, participants will be able to make films about issues of their own choosing, determine their own scripts and interview questions, and will have complete editorial control over their content and publishing.

In recent years there has been a concerted attempt to recover and to reconstruct a radical participatory video practice that enhances critical consciousness (Benest, 2010, Roberts and Lurch, 2015) and political capabilities (Williams, 2004) and which once again aims at social transformation. This movement to re-orientate participation back 'from tyranny to transformation' (Hickey and Mohan 2004) does not deny that sham-participation continues to exist. What it asserts is that the existence of sham-participation does not

negate the potential for critical participation that enables, “*learning to perceive social, political and economic contradictions, and to take action against the oppressive elements of reality*” (Freire, 1970: 17). This potential for participatory video technology to be appropriated to achieve radically different outcomes speaks to the concept of ‘interpretive flexibility’⁵⁰ from the social construction of technology (Bijker, Hughes and Pinch, 1989). Whilst the designer’s intent may be ‘inscribed’ in the technology, it is always open to alternative readings by different users (Wajcman, 2000). In this research my intent is to interpret the technology of participatory video as an critical-emancipatory⁵¹ practice in which Asikana members’ enhance their critical-agency for development, by learning to read their concrete reality through the camera lens, and then in group dialogue, to read more deeply, what Naila Kabeer (2013: 2) calls, “*the dense root-structure of gender injustices experienced in [women’s] daily lives*”. If we take seriously the interpretive flexibility thesis, as I do, then we cannot predict the outcome of participatory video process from the technology itself; the agency and intent of the facilitator and participants become co-determinant. This research will assess the influence of each of these aspects in producing the outcomes experienced.

4.4 Participatory Video Practice

It follows from the lack of a universally agreed definition of participatory video (Salazar and Dagron, 2009) that there is no agreed ‘correct way’ to do participatory video. It is however possible to outline some common elements of participatory video process as detailed in practical ‘how-to’ guides such as those produced by Shaw and Robertson

⁵⁰ Interpretative flexibility refers to the social constructivist perspective that different people can have very different understandings, interpretations and appropriations of the same technology. The concept has similarities with Feenberg’s (1990) concept of the ‘ambivalence’ of technology.

⁵¹ Here I am referring to the critical-emancipatory category in Buskens’ matrix (Table 3).

(1997) and Lunch and Lunch (2006). A facilitator or team arrives with the equipment necessary to make a film. Group participants are engaged in discussions about social issues that concern them whilst taking part in practical exercises to familiarise themselves with the functioning of cameras and related equipment. Participants discuss what film they would like to make and collaborate in the production of a storyboard/script, which is then used to guide participants as they take up the camera to begin producing their own film. Central to much participatory video is 'community' screenings of the rough footage to stimulate critical debate and to agree the final message for the external audience that the final film is designed to engage (Braden and Huong, 1998; White, 2003; Lunch and Lunch, 2006).

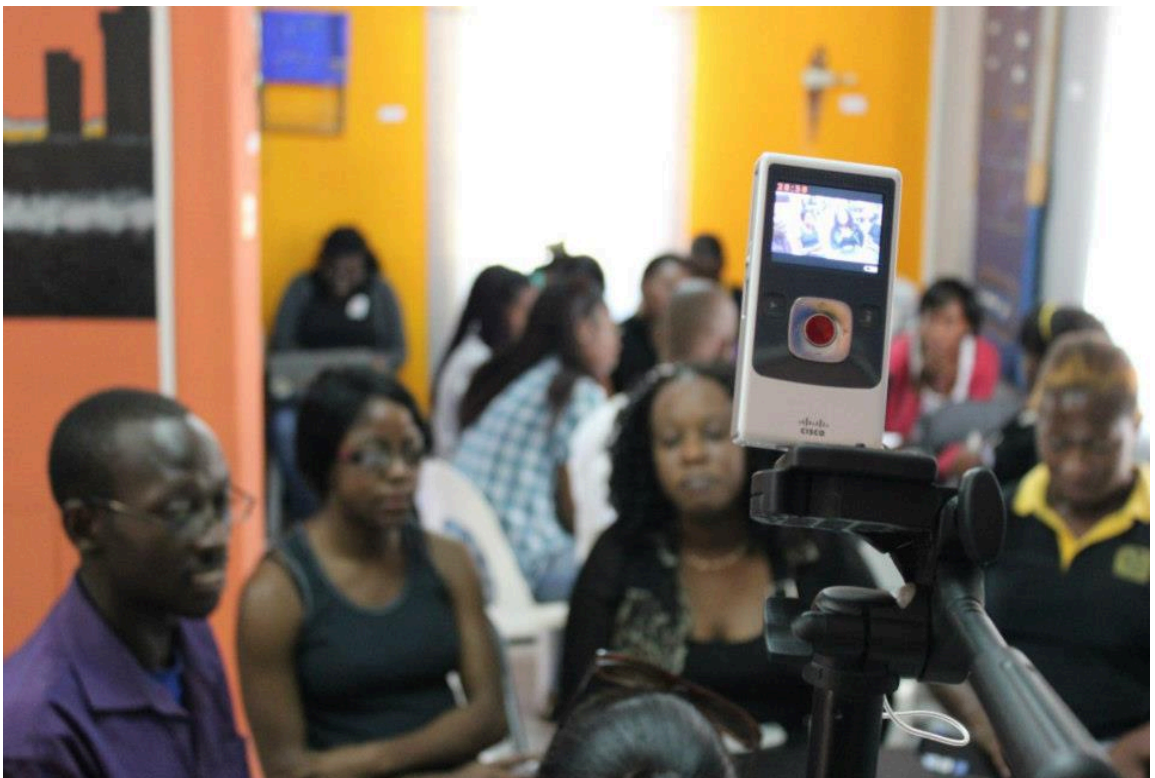


Figure 11. Filming Workshop with Flip Camera (photocredit: author)

Whilst all participatory video involves a group of people making their own film, projects differ with regard both to which elements of the process are handed over to participants and to what degree of autonomy participants' have over the film's conception, planning, filming, editing and distribution. What counts as participatory is contested and changes over time and space. In 1967 Fogo Process participants co-determined the script and appeared in the film voicing their concerns, but did not operate the cameras or use the editing equipment – tasks which were reserved for external experts (Quarry, 1994). More recent participatory video practice has handed over responsibility for operating the camera equipment to participants and facilitated a discussion amongst participants to enable their authoring of the film's structure and contents (Benest, 2010). However it has been common practice for all of the film and equipment to then be removed by the facilitating team and for the editing to take place in a remote editing suite, with the final film being delivered back to the 'participants' at a later date (Mak, 2012). In recent years rapid reductions in the size and cost of cameras and editing equipment have made it possible to produce high definition images with relatively inexpensive cameras and for editing to be carried out on standard laptops, by participants themselves, at the same time and location as the filming.

In this research I therefore decided to try to translate these opportunities, afforded by new information and communication technologies, into greater freedom and agency for participants over the film-making process. With the intent of maximising participants' confidence and self-efficacy gains I adopted a “hands-off” process where I, and any other workshop facilitator, was prohibited from touching a camera or the editing keyboard at any stage in the process to optimise participants' sense of agency and self-efficacy.

On the first day, following a whole-group discussion about women's under-representation in the technology sector, participants worked in self-selecting small groups of two to three members and each group produced a one minute *vox pop*⁵² film. During this process they gained experience in interviewing each other about women's under-representation in the technology sector. They then edited their filmed interviews and added opening and closing titles and a soundtrack. At the end of the first day the whole group convened to watch each others' films and to discuss both the technical and social learning issues that arose. A participatory process of review (Sawhney, 2012) was used to generate new knowledge and understanding about their experience of gender discrimination, and one of the generative talking points that emerged was chosen by participants as the theme for the next day's film making. On the second day small groups each produced a two minute 'reportage' film incorporating new technical skills and techniques to construct a narrative on a key issue relating to gender discrimination in the technology sector.

'Graduates' from the first cohort of videographers were selected to facilitate the participatory video workshop process for subsequent cohorts. This had the advantage of providing female role models for subsequent participants. An outline format for the five-day workshop program was produced to support the work of novice facilitators and is included as Appendix 5. This was produced for guidance only and does not match the activities of any actual workshops, each of which was free to pursue any themes that emerged from their critical dialogue.

⁵² From *Vox populi* or voice of the people, *vox pops* is a film production genre where a small sample of the public are asked their opinion on an issue of popular interest

In recent years it has also become affordable for the cameras, editing software and laptops to remain as the property of the group after an initial period of capacity-building, which can reduce on-going dependency on external organisations and so enhance the sustainability of benefits (Colom, 2009). In my research, a range of inexpensive but high-definition cameras

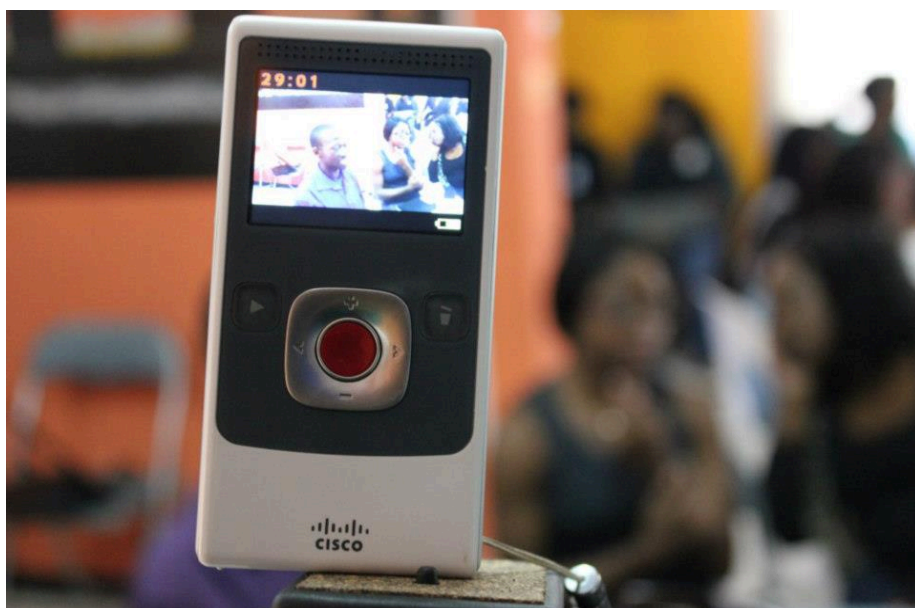


Figure 12. Flip Camera Used in Research (photocredit: author)

and free, open-source editing software made it possible for me to adopt an alternative approach. The Flip cameras⁵³ each cost £85 from eBay and the refurbished ThinkPad⁵⁴ laptops with the free and opensource OpenShot⁵⁵ film editing software were obtained from the charity Computer Aid International for £85 each. I was able to buy four second-hand high-definition cameras, four laptop computers loaded with open-source editing software and two tripods for a total of £800 and to give all of the equipment to Asikana

⁵³ Flip camera example <http://amzn.to/1Qz6mDp>

⁵⁴ ThinkPad laptop example <http://ebay.eu/1IYW637>

⁵⁵ OpenShot website <http://www.openshot.org/>

Network at the end of the process⁵⁶.

In this research ownership of all equipment used (cameras, tripods, laptops, software) was transferred to the host organisations so that they could continue to make films between and after the research phases facilitated by myself. This was intended to give full ownership of the means of video production to Asikana Network members.

4.5 Process versus Product

Some participatory video projects are primarily *process-focused*, whilst others are *product-focused*. In some initiatives the perceived process benefits of dialogic learning are the primary objective and the quality of the resulting film is of secondary concern (Nemes *et al*, 2007). In other, more *product-focused* participatory video initiatives there is more investment in the production values of the resulting film, especially where the film is intended to play a role in advocacy to an external audience in order to promote social change (Kyung-Hwa Yang, 2012). In the former case the primary intended audience is often the participants themselves as well as perhaps their immediate organisational or geographical community, and the participatory process is valued primarily as a means of developing the skills, self-efficacy and shared intent of the group (White, 2003). In such cases the quality or professionalism of the resulting film may not be a priority. In other cases the primary intended audience may be distant decision-makers, in which case the content, style, and professional aesthetic may be valued for adding gravitas to the film's advocacy message. This approach has the advantage of producing a broadcast quality film with high production values. The

⁵⁶ By way of comparison some practitioners might spend several times this amount on a single Sony Handycam <http://bit.ly/1T19i4s> before also buying microphones, tripods and editing software.

disadvantage is that elements of the process are not participatory and the facilitating organisation takes their equipment away at the end of the process. This is not ideal if the development goals include building independent sustainable local capacity. This process/product distinction is not binary. Many initiatives value both to varying degrees (Kyung-Hwa Yang, 2012) and some participatory video processes that begin life as internally-focused subsequently develop an aspiration to also represent themselves and their issues to external audiences. As a project progresses, the group's desire to say something to a wider audience often increases (Shaw and Robertson, 1997).

In situations where the conscientisation process is considered to be more important than the aesthetics of the final product, it is possible to trade the production values of the final film product against process goals of producing critical-agency. In my research design process was emphasised over product because the research intent was to enhance Asikana members' critical-agency rather than to take a campaigning or advocacy message to communicate to distant decision-makers. I was prepared to modify the design had Asikana decided it wanted to advocate, but this did not happen⁵⁷. Reflecting back on the process, I recognise that the reason 'using participatory video to enhance critical-agency' is central to this research reflects my interests as a researcher and as a privileged PhD student. Asikana asked me to teach film-making. These two sets of objectives were however openly discussed and a mutually-beneficial solution evolved which enabled Asikana members to learn film-making, deepen their understanding of the issues facing Asikana members as well as mine, and led to Asikana and its members providing their informed consent for my research.

⁵⁷ My work facilitating strategic planning with Asikana prior to the participatory video indicated that the organisation was in an early phase of clarifying its internal vision and mission rather than project an external campaigning message – although this may change over time.

4.6 Compatibility with Participatory Action Research

Both participatory action research and participatory video are open to a wide range of interpretations and appropriations. As Buskens (2014) has shown, research approaches are underdetermined by research intent; participatory action research and participatory video both have the potential to be applied for conformist, reformist or transformist purposes. However participatory action research and participatory video share some features that make them compatible for critical research (Plush, 2012; Schwab-Cartas, 2012). Both share an emphasis on the direct involvement and agency of the community in the process (Evans and Foster, 2009). It is for these reasons that I adopt participatory video as one element of the participatory action research undertaken in this study.

Participatory action research is premised on ownership of the data, analysis and knowledge residing with the community. Participatory action research seeks to move away from research carried out 'on' people where the results are often disappeared to foreign academics (Fals-Borda and Rahman 1991). It seeks to replace this 'extractive' model with research carried out 'with' or 'by' people engaged in a process of collective self-enquiry to inform their own self-determined development (Fals-Borda 1998). In this study participatory action research is the overall approach, and participatory video, participatory workshops and focus groups are the three main research practices employed by Asikana members to collect and make their own (first level) analysis of the data. Asikana founders and management took part in some group film screenings and critical dialogue sessions, and also took part in all three focus groups to ensure that the new knowledge produced as research outputs fed into Asikana's on-going cycle of strategic planning and action for change. In these ways participant ownership of the

participatory action research process and research outcomes were optimised.

I then conducted semi-structured interviews and reported my preliminary findings to Asikana Network before returning to the UK to make transcriptions of all the research data and make another (second level) of data analysis prior to writing up the thesis. In this way the diverse needs of participants, host organisation, and Ph.D, which had been negotiated in initial research design meetings with Asikana, were realised. Figure 8 illustrates the relationship of these complimentary processes. The next section focuses on how particular affordances of participatory video relate to specific elements of critical-agency.

4.7 Affordances of Participatory Video for Critical-Agency

Originated by psychologist James Gibson (1977) to refer to the actionable properties of an item, the term 'affordance' was appropriated in the field of technology design by Donald Norman (1988) and is used to signify aspects of the technology that *invites, allows or enables* a user to act in a particular way. For example, it has been argued that the audio-visual nature of video affords (allows and enables) participants an effective means to articulate and disseminate their concerns that is not dependent on *traditional literacy levels* (Lunch and Lunch, 2006). Whilst suggesting that participatory video provides a level playing field for collaborative work among people with diverse literacy levels would be an over-claim, it can afford a greater inclusion of non-literate and low-literate participants in processes of knowledge formation and dissemination (Braden, 1998; Lemaire and Lunch, 2012). Following this logic, it can be claimed that participatory video has specific affordances such as enabling reflexivity (Kyung-Hwa Yang, 2012), focusing group deliberation (Braden, 1998), or creating space for social

learning (High, 2005). Table 7. below illustrates affordances of participatory video claimed in the existing literature as they relate to the provisional elements of critical-agency (illustrated in Figure 1). The remainder of this section will examine these claimed affordances.

With self-efficacy is not included in the table as an element of critical-agency I argue it is a pre-requisite of critical-agency that a person feels themselves able to act and realise goals. Carol Underwood and Bushra Jabre (2003) are among those that have demonstrated participatory video's affordance for building women's self-efficacy. Albert Bandura (1995) has shown that repeated 'mastery experiences' are an effective way of building a person's sense of self-efficacy. For this reason in this research an approach to participatory video was innovated that was designed to maximise participants' experience of successful task accomplishment in order to enhance self-efficacy. It is common for participatory video practice to involve a single group in a week-long process to produce a single collaborative film (Lunch and Lunch, 2006). In this research small groups of two to four members each produced three or four films in the same time period. Short iterative cycles of learning filming, interviewing, and editing skills were designed to maximise the opportunity for repeated 'mastery experiences' (Bandura, 1995). Each group completed a simple one-minute film on their first day complete with titles and soundtrack. On day two each group completed a three-minute film incorporating new technical skills, and on day three a five-to-ten minute film was begun. Each day ended with film-makers screening their film to their peers in order to have two sets of reflection. Firstly they self-identified opportunities for technical improvements that they would like to incorporate into their next film. Secondly the group reflected critically on the social issues raised by the film.

	Affordances of PV	Reference
(a) Reflection	Rewind, replay, edit functions “Video acts as a mirror” Reflection aids conscientisation PV inherently reflexive	Shaw and Robertson (1997) White (2003) Lunch and Lunch (2006) Kyung-Hwa Yang (2012)
(b) Engagement	Camera a reason for raising issues Creates space for social learning Focuses group deliberation Enables distanciation	Shaw and Robertson (1997) High (2005) Braden and Huong (1998) Braden and Huong (1998)
(c) Dialogue	Develop criticality Develop critical consciousness Collective analysis of social-political-culture structures	Shaw (2012) Benest (2010) Walsh (2012) Braden and Huong (1998) White and Nair 1994
(d) Intent	Builds shared intent for change Collective voice	Braden and Huong 1998 White (2003)
(e) Voice	Provides permission to question A means to identify and articulate issues important to them “Images give power to voice”. Production of counter-narratives	Bery (2003), Shaw (2012) Shaw and Robertson (1997) Stuart and Berry (1996) White (2003) Thomas and Britton (2012)
(f) Action	Action for positive change Exerting influence	Benest (2010) Snowden (1984)

Table 7. Affordances of Participatory Video (source: author)

The remainder of this section addresses each of the six elements provisionally considered to be elements of critical-agency based on the literature review.

(a) **Reflection:** It is argued that video's rewind, replay, and (re)edit affordances invite and enable critical reflection on the part of those involved with participatory video (White, 2003; Lunch and Lunch, 2006; Kyung-Hwa Yang, 2012). These functions of video, some argue, invite participant self-reflection and iterative revision of what they think and say about each issue (White, 2003). The task of constructing of a film's storyboard requires that a person departs from stream-of-consciousness thought and speech to reflect more deeply on what they think and wish to represent. Scholars, including Shaw and Robertson (1997), have likened this affordance of video to psychoanalyst Jacques Lacan's (1949) mirror stage in producing new self-knowledge. Seeing, and hearing oneself talking, on screen offers the opportunity of insight about oneself leading Kyung-Hwa Yang (2012: 102) to claim that the affordance of, "*reflexivity is inherent in participatory video*". In Section 8.1.1 I will critique this claim that reflexivity is 'inherent' in participatory video an over-claim. The idea of 'critical reflection' is central to Freire's *Pedagogy of the Oppressed* where he uses the term to refer to a praxis of reflection on action, and of action on reflection, in order to deepen a person's ability to know and change the world. This research will assess the affordance of participatory video in generating reflection and critical reflection.

(b) **Engagement** Participatory video has been found to be an effective and fun way of engaging with groups and animating discussion around social issues (Shaw and Robertson, 1997; Lemaire and Lunch, 2012). However the judgement of means must go beyond efficacy in engagement to the nature and outcome of engagement (Dougherty

and Sawhney, 2012). In participatory video the role of the facilitator has responsibility for problematising the practical issues presented by participants, and for taking discussion incrementally to the next level by asking questions such as “but *why* do you think people hold those views?” and “who benefits from things being this way?”. In this research I developed a 'problem posing method', based on my interpretation of Freire's theory-practice to develop participant's ability to make a critical reading of their world (See Figure 13. below).

(c) **Dialogue**

Dialogic practice is central to the process of conscientisation work at the heart not only of Freire's process, but also to gender consciousness-raising workshops employed by some critical feminists (Sarachild, 1970; Ledwith, 1997; hooks, 2010) as well as to Black Consciousness in South Africa (Arnold, 1978; Magaziner, 2010) and to class consciousness-raising by trade unions (Cooper, 2007). At the heart of this practice is the practice of engaging disadvantaged people in discussion about their practical needs and interests and enabling a collective excavation to identify what Zheng and Walsham (2008: 236) call the, “*deep-seated issues of political and institutional arrangements*” that often underpin other inequalities and what Kabeer (2013: 2) calls, “*the dense root-structure of gender injustices experienced in [women's] daily lives*”. The intent is that by identifying the root causes of inequity social action can be directed in ways that will not only be palliative but also transformatory. This research will be attentive to the distinction between dialogue and critical dialogue, following Freire's (1970) caution that dialogue is insufficient if it does not inform action for transformation

Problem-Posing Method

Problem posing discussions occurred each day integrated as part of the participatory video exercises. They occurred as the occasion arose and as part of the review of films produced at the end of each day. By means of group dialogue, standard participatory workshop exercises, and an adapted form of Freire's problem-posing method, participants were engaged in a critical inquiry as to the root causes of the constraints to their freedom.

Participants were asked to discuss in small groups *why* women are under-represented in technology workplaces with follow-up questions such as 'but *why* do you think their parents/teachers/preachers discourage them?' and 'where did they get those beliefs from?' as well as '*who benefits* from things being this way?'. The intention is that each question digs one layer of causality deeper until the root causes of the unfreedoms are identified. Opportunities to act to produce change are identified by asking questions such as and 'what change would you most value?', and 'who would need to act for that change to happen?'.

In focus groups and during in the video-making process I used some standard participatory workshop methods including 'the river of life' and a 'problem tree' (Stanfield, 2002; Chambers, 2002) to engage participants in dialogue to identify, agree and rank the challenges, causes and solutions that they perceived to be key.

Discussion in pairs and then small groups produced suggestions on Post-It notes, which were then pinned to the wall. Each constraint was explained by its originators and discussed before a collective process of clustering any similar or related issues, followed by a ranking exercise in which participants 'vote' for the constraints they feel are the most determinate. In some workshops participants then build a 'problem tree', where for each constraint, through group dialogue, they sought to identify its underlying causes (and the causes of those causes) in a process designed to reveal the root causes of each identified constraint. Finally they discussed what actions are necessary to overcome the constraints and produce developments that they have reason to value.

Given the complexity of social reality and causation, any such process is inevitably partial and provisional. It is not expected that a short workshop will discover a magic formula to resolve all social ills; the objective is to develop participants' ability to read the world. In many ways the process is more important than the veracity of the analysis of the first workshop. The process provides a space for non-experts to reflect critically on the oppressive structures that constrain them, to realise their agency to act in the world for change and, in dialogue with others in similar circumstances, to build relationships of solidarity and shared intent.

When interviewed subsequently the majority of participants said that they had never previously had the opportunity to discuss these issues with women outside their family; they considered that they had gained new knowledge and felt more motivated to take part in other activities to improve the situation of women in Zambia.

Figure 13. Problem Posing Method in Asikana Network (source: author)

(d) **Intent:** Participatory video is one means to bringing together people in a process to discuss commonalities in experience of injustice and to form common intent to act for valued change. Group film-making can have the effect of producing amongst participants a shared intent to overcome the conditions that impoverish them (Braden and Huong, 1998) both as personal change from within, as well as change in the world around them. However given the discussion above about the 'interpretive flexibility' of all technology, then the human agency of the facilitator/participants can be expected to be significant in determining whether outcome are conformist, reformist or transformist⁵⁸. This research will assess whether research participants are able to use the technology of participatory to fulfil their intent.

(e) **Voice:** it is claimed that one of the affordances of using a digital camera and tripod is that it allows and enables the user to approach and question people that they would otherwise feel unable to question (White 2003). A camera and tripod gives users permission to ask direct questions and to raise difficult issues (Shaw and Robertson, 1997). This experience of being able to speak and to be taken seriously often has the effect of raising users' self-esteem, confidence and sense of personal power and agency (Bery, 2003). Stuart and Bery (1996) and Braden and Huong (1998) are among scholars who claim that participatory video enables a group to identify and agree issues of common concern and to voice them effectively to more powerful decision makers.

However, as has been pointed out (Shaw, 2012), the fact that an issue has been voiced does not mean that it has been heard, and the fact that it has been heard does not mean that it will be acted upon; in fact allowing many voices to be 'heard' can also be a cynical

⁵⁸ And it is important to add that it will have unintended as well as intended outcomes.

tactic of oppression as in Marcuse's (1965) sense of 'repressive tolerance' in which a spectacle of 'free speech' serves to obfuscate the real power that an elite has over key opinion-forming media and political decision-making. The claim that participatory video can amplify the voice of disadvantaged groups should not be misinterpreted as a claim that holding a camera disappears structured dimensions of disadvantage such as race, gender or class, but instead, only as a claim that it can be disruptive of existing power relationships and productive of new perspectives and knowledge, including self-knowledge⁵⁹.

(f) **Action:** Finally it is claimed by scholar practitioners, including Walsh (2012) and Benest (2010), that participatory video has an affordance for enabling social action in the arena of both subjective and material change. By combining Freirian theory and practice, participatory video has the potential to enable disadvantaged people to develop an increasingly critical reading of their social conditions and, using the medium of film, to articulate a critique and a course of social action to tackle injustice (White, 2003). Shaw and Robertson (1997) see the group process and its capacity to generate social action as a key benefit of participatory video. Shirley White (2003) similarly points to the collective social and political analysis afforded by participatory video as being generative of shared intent and action for social change. This research will the extent to which participatory video enhances participant's intent and action for change as well as the extent to which that action in 'critical action' directed at the root causes of oppression identified in the above elements of critical-agency.

⁵⁹ Ownership of the means to produce and publish a video on YouTube is not here being equated with the means of production that capitalists have to produce and disseminate their values and interests through ownership of global media companies such as 21st Century Fox or Time Warner, or that the British establishment has through its control of the BBC, or the Russian state has through its control of the main three news channels.

4.8 Recommendations for Practice

The participatory video methodology adopted in this research involved some equipment innovations designed to improve the sustainability of participatory video interventions and some process innovations designed to improve self-efficacy through 'mastery experiences'.

Rapid increase in quality and reduction in cost of film-making equipment is opening new vistas for innovative participatory video practice. Using free software and inexpensive equipment makes it increasingly possible to leave behind the means of film production after the research period. The pace of change means that it may prove more useful to make some generic points⁶⁰. On the basis of this research I would recommend use of relatively inexpensive high-definition (HD) cameras that can accommodate off-camera condenser microphones, and which use whatever type of digital storage media that is most readily transferable to the computers being used for editing.

The rapid increase in technical specifications accompanied by rapid reduction in costs means that high-definition (HD) cameras have become relatively affordable in recent years. The image quality of these digital cameras and even mobile phones is now often near broadcast quality. However the built-in sound recording quality is often relatively poor. The Flip cameras that I used could not accommodate an off-camera microphone and capturing good quality audio was challenging especially in windy conditions or in locations with background noise. For this reason I would recommend buying cameras that can accommodate an off-camera microphone as the in-built microphone is likely to

⁶⁰ The actual equipment used is shown in Section 3.4.5

be challenging except in very controlled conditions⁶¹.

This research used free and open-source film editing software (Openshot) on refurbished laptops running a free and open source operating system (Edubuntu). Most editing software now uses a standard visual interface and process so that skills learnt on one package are easily transferable to others; this makes it possible to conduct training on free and open source software or to use low-cost entry-level editing software (e.g. Adobe Premier Elements) that is often available at discount prices to schools and not-for-profit organisations⁶². By virtue of using inexpensive cameras and free and open source editing software on professionally refurbished laptops I was able to keep total equipment costs down to £800, which is a small a fraction of the cost of many participatory video engagements. As a result, at the end of the research period, I was able to leave behind 100% of the means of film production.

The rapid iterations of filming and editing a one minute film by the end of day day one and a third film by the end of day five worked well for the skills-training, self-efficacy and critical-agency objectives of this engagement. The documentation of these processes is available to other practitioners who may wish to adapt and modify them for their own purposes. The main limitation of this approach is that the resulting films do not have the high production values or crisp messaging that will be a priority for other participatory video purposes.

Having claimed the sustainability advantages of being able to leave the camera

⁶¹ At the time of writing the Sony PJ620 is an example of a camera which can accommodate an off-camera microphone and has the added advantage of a built-in pico projector <http://bit.ly/1JvBz0L>

⁶² For example Tech Soup <http://www.techsoup.org/products/photoshop-elements-13-and-premiere-elements-13--G-45103-->

equipment behind at the end of the research period it is important to say that whilst this is necessary it is insufficient. Participatory video is about more than amateur film-making. This research also trained three members of Asikana Network to be facilitators of participatory video processes and they facilitated workshops alongside me and in my absence. The main finding in this regard was that whilst it was relatively easy to pass on the technical skills necessary to make and edit basic films, it was relatively difficult to pass on the critical skills necessary to facilitate critical dialogue from practical gender interests to strategic gender interests. I under-estimated the tacit knowledge of critical feminist theory and practice that underpinned the facilitation of critical-agency. On another occasion I would build in more time to develop the capacity and intent of co-facilitators in these areas. This is crucial to achieving a critical participatory video practice that extends beyond developing practical and vocational skills in film-making to the ability to critique the power interests structuring gender disadvantage that provide participatory video with 'transformatory potential'.

4.9 Conclusion

Participatory video is no quick fix for development (Lunch and Lunch, 2006; Shaw, 2012). Participatory video can be used in ways that does not produce critical-agency and the elements of critical-agency outlined above can each be generated by means other than participatory video. The only claim being made here is that, based on the research literature, participatory video has affordances that are potentially productive of critical-agency. Realising these potentials however, necessarily relies on the human capacities and intent of the facilitators and participants. Use of the technology itself does not

determine a particular development outcome⁶³.

In order to realise its emancipatory potential, participatory video, I argue, must be applied with critically conscious intent; to enable participants' critical-agency to expose and challenge the hidden power-interests that effectively structure (dis)advantage. When used in this way the ICT of participatory video has valuable affordances for human development. Participatory video processes can promote reflection, produce and communicate new knowledge and open new space for 'naming the world' and acting to transform it. This is not a claim that a single participatory video workshop is sufficient to generate transformational social change. On the contrary, evidence suggests that participatory video is most effective when used as one aspect of a broader, longer-term engagement designed to build the necessary agency and political capabilities for producing social change (Williams, 2004; Colom, 2009; Walsh, 2012). However in this research, participatory video will be used as one element of Asikana Networks' broader programme of action to address the profound discrimination and (dis)advantage experienced by women in Zambia's male-dominated ICT sector. Asikana's use of participatory video was an effective means of combining member's practical interest in acquiring new ICT skills with the organisation's strategic interests in tackling gender inequity, as well as my own research aim of studying whether Asikana's use of participatory video can enhance members' critical-agency for development.

Chapter 5. Zambian Research Context

⁶³ This resonates with Kentaro Toyama's (2010a) amplification thesis that technology can only amplify existing capacity and intent.



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Figure 14. Map of Zambia

5.1 Introduction

This chapter outlines the Zambian national context in which this research took place. I include it here on the premise that the research data cannot adequately be interpreted without consideration of these determining factors. I argue that not only was Zambia's human development impaired by imperialism but that the legacy of colonialism persists, alongside new neo-colonial interventions that (re)produce intersections of disadvantage along lines of 'race'-ethnicity, gender and class. The contextual data presented in this chapter is particularly relevant to research question RQ1.1 which asks what contextual political, economic and social contingencies affect this research.

I will briefly outline Zambia's development profile before considering the colonial, liberation, and post-colonial phases of Zambian history in order to then draw some conclusions about the contextual setting for the work of Asikana Network and of this research process.

5.2 Development Profile

Zambia is a land-locked country in central Southern Africa, where fourteen million citizens live in an area half the size of Europe. Mining, pastoralism and agriculture are the main forms of economic activity. Zambia's levels of human development are still recovering from low economic, education and health levels that resulted from an economy distorted to meet colonial interests to produce an uneducated reserve army of labour for British mines in South Africa and agricultural plantations in Zimbabwe (Gadsden, 1992). Prior to independence from Britain, less than 1% of Zambians had completed primary education (mainly boys) and there were only 10 Zambian university graduates in the whole country, all of whom had studied overseas (Burawoy, 2014). Following independence, substantial investment in healthcare and education produced dividends in human development indicators, tripling the number of health centres and hospitals and rapidly expanding education at all levels, including establishing 24 universities (ZCSO, 2012). However, many human development gains were steadily reversed during the 1980s and 1990s due to a new form of imperialist intervention in the guise of structural adjustment programs imposed from Washington by the International Monetary Fund (Mutukwa and Saasa, 1995; Simutanyi, 1996; Tandon, 2008). Structural adjustment had a particularly detrimental impact upon women and girls who have borne the brunt of rising levels of poverty and unemployment, declining educational

opportunities and cuts in the provision of basic services including health care (OMCT, 2002).

“Zambia is regularly offered as an example of the failures of structural adjustment programmes (see for example Saasa 2002, Suri 2004). In other words it is widely recognised that structural adjustment programs imposed by the IMF destroyed key industries in Zambia, made tens of thousands of people unemployed, drove up food prices and made daily survival even more difficult.”

Emily Frank (2006: 22)

Zambia's Human Development Index (HDI), a measure that includes income, health and education indicators, has steadily increased every year since the ending of structural adjustment (UNDP, 2014) and now ranks 141 out of 187 countries. In 2013 Zambia moved from the category of 'low human development' to 'medium human development' for the first time (UNDP, 2014). The Millennium Development Goal (MDG) of universal primary education was met in 2015. However female literacy (58%) still lags behind male literacy (77%). Girls are under-represented at all levels of education with the gender gap widening at secondary and tertiary levels. Although the most common reason for dropping out of school is 'insufficient funds to continue' this class bias⁶⁴ intersects with gendered determinates of 'pregnancy' 6% 'got married' 4% 'needed to help at home' 2%, and 'unsafe to travel' 0.6% (ZCSO, 2000). Tackling the low educational

⁶⁴ The relationship between income and class is well established in the literature. The African Development Bank uses consumption expenditure of between \$2 and \$20 a day to define the middle class (ADBG, 2011). ZIPAR (2013) contains an extended discussion that links the definition of class to occupation, occupational autonomy and to income, and uses 50% to 125% of the median (weighted) asset index as its classification of middle class for the purposes of statistical analysis whilst recognising that other aspects of class definition might include dispositions such as aspirations.

expectations and performance by girls in Zambia is central to the mission of Asikana Network, who wish to make a contribution to Zambia's human and economic development by ensuring that girls and women have equal educational and employment opportunities, particularly in Zambia's emerging information and communications technology sector.

Viewing development in more narrow economic terms, Zambia is now a lower middle income country (World Bank, 2014), which in recent years has combined steady economic growth with a highly unequal distribution of wealth. Zambia's GDP growth has exceeded annual compound growth of 5% every year since 2003 (ADBG, 2011) yet remains precariously dependent upon copper which accounts for 40% percent of GDP and 95% of its exports (UNDP, 2013) and therefore dependent upon the global commodity price of copper (APRM, 2013). In 2013 Zambia's GDP per head (PPP) grew to \$1,800 but strikingly the distribution of this wealth across the population is amongst the most unequal in the world with a Gini coefficient of 0.65 (UNDP, 2013). The growing wealth of Zambia's elite and growing middle class stands in marked contrast to the 60% of the country's fourteen million people who live below the poverty line (World Bank, 2015).

Zambia has subjected itself to the African Peer Review Mechanism (APRM, 2013) and the report on Zambia notes the authors' concern that, despite being a signatory to many international conventions on human rights, the government has largely failed in terms of domestic implementation, monitoring and reporting. Section 4.2.13 of the Peer Review Report notes diplomatically that despite Zambia's public commitment to various rights and freedoms, it remains the case that, "*people may not fully enjoy social and economic*

rights: women, children, the vulnerable, marginalised, disadvantaged, weak, and all other such groups may not enjoy the rights that are supposed to be guaranteed by, or embodied in those agreements” (ibid; 31). This finding is relevant in the context of this research because, although Zambia is a signatory to international conventions that guarantee gender equality, women and girls continue to experience disadvantage, discrimination, and deprivation in relation to men and boys, issues that Asikana Network was established to address.

As elsewhere in the region, the exponential growth in mobile phone usage has arrested fixed line telephony at less than 1%. There are 9,297,201 mobile phone subscriptions (SIM-card sales) in a population of just over 14 million (63.8%) although these figures are distorted by the fact that some users subscribe to more than one service provider (ZICTA, 2014). According to ITU (2013) figures, only 15% of the population have access to the internet and that access is overwhelmingly (98%) via mobile data (UNDP, 2013). Neither the ZICTA nor the UN statistics on Zambian ICT access are disaggregated by gender, but women's access to ICTs in Zambia and neighbouring countries has elsewhere been shown to be lower than men's (Hafkin, 2007; Gillwald, 2010; GSMA, 2012; Deen-Swarray, 2013); this gender disparity has been shown to be greater for women from low income classes (Gillwald, 2010); and women's ability to make effective use of ICTs has shown to be compounded by lower levels of education and skills (Deen-Swarray, 2013). This intersection of gender, class and educational privilege are core to this research and are issues on which research participants were able to provide data.

5.3 Historical Context

Zambia's history began long before Dr. Livingstone renamed the Mosi-ao-Tunya waterfalls 'Victoria Falls' or the British state re-named the land Northern Rhodesia. Archaeological evidence shows that the territory now known as Zambia has been home to diverse cultures for 200,000 years. The previously dominant San and Khoisan communities were largely displaced by people of West Africa origin during the fourth century and it was these Bantu immigrants who first introduced agriculture, pastoralism and copper mining to Zambia, activities that comprise the nation's principal economic pursuits to the present day.

5.3.1 The Colonial Period

Zambia's rich copper, agricultural, and human resources made it a target for imperialist slave traders, extractive industry and British colonial settlement. According to scholars such as Rodney (1972) and Phiri (2001), Zambia was systematically underdeveloped by colonial and by neo-colonial exploitation. Europeans took captive Zambians to slave on plantations in the Americas on an industrial scale before returning to loot the nation's mineral resources from 1890 to the present day (Rodney, 1972; Bond, 2006; Sharife, 2011). Each phase of imperial exploitation diverted Zambia's human and natural resources to serve foreign interests at the expense of the interests of the Zambian people (Phiri, 2001, Wilson 2012).

At the Berlin Conference of 1884-5 Zambia fell under British dominion as the European powers carved up Africa with a racist disregard for the dignity and sovereignty of the indigenous population and their ways of life (Rodney, 1972). Under British domination, Zambia's indigenous cultures and beliefs were systematically devalued and displaced by a programme of 'civilisation, Christianity and commerce', along lines that David

Livingstone (1858) had outlined to a meeting of Cambridge scholars called to recruit colonists:

“The prospect is now before us of opening Africa for commerce and the Gospel.... In going back to that country my object is to open up traffic along the banks of the Zambesi, and also to preach the Gospel... Those two pioneers of civilization—Christianity and commerce—should ever be inseparable.”

David Livingstone (Cambridge Lectures, 1858)

As Livingstone clearly stated, Britain's intent extended beyond the geographic and economic colonisation of Zambia to include a 'colonisation of the mind'; that is to adapt the beliefs and values of the indigenous people in ways conducive to colonial interests (Chinweizu, 1987). In this research the issues of mindset, of consciousness and culture, and the means by which they are formed and may be reformed are core issues.

Cecil Rhodes was given a Royal Charter by the British state to exploit the territory now known as Zambia for Britain's profit. Rhodes imposed a cash and wage-labour economy by inventing a 'Hut Tax' (actually a head tax on Black adult men) only payable in cash, a fact that forced indigenous men into wage-labour within the colonial economy of mining and railway construction. In 1911 the British (re)named the territory *Northern Rhodesia* in 'honour' of Rhodes, and the country remained under British dominion until independence in 1964. His *British South Africa Company* (BSAC) and its successors extracted millions of tons of Zambian mineral wealth and cruelly exploited local labour to further his own personal, and British imperialist interests. Any resistance to

domination was violently repressed by his personal paramilitary police force. Rhodes' White supremacist intent is communicated nowhere more clearly than in his *Confessions of Intent* (1877) written whilst he was still at Oxford:

"I contend that we are the finest race in the world and that the more of the world we inhabit the better it is for the human race. Just fancy those parts that are at present inhabited by the most despicable specimens of human beings what an alteration there would be if they were brought under Anglo-Saxon influence."

Cecil Rhodes (1877)

The quotes of Livingstone and Rhodes above make clear the ideological project to adapt the thinking of Zambians and Britons in ways that legitimised the imperial project, and in ways that relate to Freire's levels of consciousness and to Sen's concept of adaptive preferences (Sen, 1999; Nussbaum, 2000). Britain was undertaking what Freire would call a '*cultural invasion*' (Freire, 1973) which did not limit itself to the imposition of 'civilisation, Christianity and commerce', as Livingstone has originally imaged, but went on to make English the official language, introduce missionary education, the colonial curriculum, control all print and radio news media, impose the British legal system, policing, and the forced conscription of Zambians to fight in imperial wars. By means of its control over the state ideological apparatus (Althusser, 1971) of school, church, and media, Britain was able to create an effective hegemony (Gramsci, 1971) that served to legitimate White supremacy in the minds of the coloniser, and the colonised (Fanon, 1965; Memmi, 1967; Freire, 1970). Fanon, Memmi and Freire are amongst those that have argued that living for extended periods under oppressive conditions becomes

reflected in the internalised subjectivities of the oppressed. Sen (1999) and Nussbaum (2000) have similarly argued that living in conditions of persistent deprivation results in people adapting their preferences and desires. These themes of internalised oppression and adapted preferences, and practical mechanisms to counter them, are central aspects of this doctoral research.

5.3.2 National Liberation

Whilst Zambia's modern history cannot adequately be understood without reference to colonialism, it is equally true to say that it cannot be fully understood without foregrounding the agency of the Zambian women and men who resisted each aspect of Britain's domination, who secured national liberation, and who together actively co-determined the shape of an independent and developing nation. This tradition of resistance forms a significant part of the Zambian collective consciousness (Durkheim, 1893) that is the set of shared beliefs and attitudes upon which all Zambians are able to draw (Larmer, 2006; Sutcliffe, 2012).

The early colonisation of Rhodesia took place in the face of sustained resistance by indigenous peoples. These included, but were not limited to, the Bemba uprisings in the highlands near Lake Tanganyika, and the Tonga insurgencies in Kaunga (Phiri, 2005). Rhodes tricked the Lozi King Lewanika into signing concessions, and elsewhere, when quiescence was not forthcoming, he used draconian force to put down resistance, destroying crops, burning entire villages, and using the threat of the Maxim machine gun to force men into labour (Vickery, 1986). This new military technology gave British forces a distinct advantage, yet throughout the colonial period, resistance remained fertile and was evident in the organised resistance of trade unions, social movements

such as the Mutual Aid Organisation and Mweza Association, and political parties including the African National Congress and the United National Independence Party (UNIP). People's agency was also evident in thousands of covert acts of resistance (Scott 1985, 1990) such as feigning ignorance of colonial rules and hiding from the Hut Tax revenue men (Vickery, 1986).

Women played a central role in the national liberation struggle and were especially prominent in the boycott campaigns (Tembo, 2012). Independence was wrested from Britain in part through the courage and tenacity of women like Julia Mulenga Nsofwa, “Mama Chikamoneka” and Nganga Nakatindi Yeta, freedom fighters and outspoken critics of colonial rule who led people's boycotts and marches until Kenneth Kaunda's UNIP came to power in 1964 (Hall, 1976). Upon independence in October 1964 the government of the new Republic renamed the country Zambia. Arguing successfully that the British South African Company (BSAC) had never had any legal right to its copper mines, President Kaunda's government forced BSAC to surrender the £70m of royalties annually that it had been expropriating to Britain. This action enabled the nation to begin its independent life on a sound financial footing and for the first time to extend schooling and medical care to all citizens. In its early post-colonial years Zambia played a key strategic role in assisting its neighbours to free themselves from European domination and from apartheid. Zambia hosted large refugee populations and multiple training bases for freedom fighters from other countries. Research by Gabriel Banda (2000) has established that Zambia's support for the liberation struggles of its neighbours in South Africa, Angola, Mozambique, Zimbabwe and Zaire cost in excess of \$19 billion and contributed to the nation's high level of indebtedness.

This social history of resistance is relevant to this research to the extent that people's individual and collective preferences and agency are, in part, socially constructed (Freire, 1970; Sen, 1999). If it is true that being subject to persistent deprivation adapts preferences negatively (Sen 1999; Nussbaum, 2000), then arguably, by that same logic, having a history of resistance to domination and of liberation might adapt preferences positively. To the extent that resisting domination and securing formal independence is a part of Zambian cultural heritage, we might expect a sense of aspiration to freedom to be internalised or, in Sen's terms, to have adapted people's preferences.

5.3.3 Neo-Colonialism

Zambia's first President, Kenneth Kaunda, nationalised Zambia's mines in 1969 and used the revenue to invest in two decades of unprecedented social spending. The developmental state (Williams, Meth and Willis, 2014) that Kaunda operationalised maintained a sustained program of investment in all levels of education and healthcare for fifteen years. However crisis in the 'developed economies' caused a global slump in the price of copper from 1975 onwards, which fatally weakened President Kaunda's position⁶⁵ causing him, amongst other things, to print huge amounts of domestic currency and to accept huge foreign loans (Ellyne, 2002). Accepting foreign loans to continue social spending exposed Zambia once more to the interests of foreign capital (Burawoy, 2014), this time in the shape of the World Bank/IMF. For many developing countries the 1980s were characterised by the globalisation of neo-liberal economics and market-fundamentalism imposed by the World Bank in the form of structural adjustment, 2005). Neo-colonial control of Zambia's economy was reasserted when the

⁶⁵ This is not a claim that Kaunda's government was above criticism. However the large income derived from nationalising its mineral wealth meant that Zambia was able to sustain substantial investments in healthcare and education.

World Bank/IMF imposed its Structural Adjustment Programme on Zambia, the conditionality of which forced Zambia to privatise two hundred and eighty state-owned companies including the copper mines. The terms of structural adjustment forced Zambia to severely cut government funded education and healthcare. The impact was experienced asymmetrically along lines of gender and class; those unable to pay for private schooling or healthcare were most affected (Sinkamba, 2005) and the enrolment of girls to state primary schools worst hit (Babalola *et al*, 1999).

At independence Zambia had been a middle-income country that derived almost 60% of government revenue from taxing the mining companies but this fell to just 5% following the terms of privatisation imposed by the International Monetary Fund (Lee, 2013). Those terms meant that Zambia received the lowest rate of copper royalties in the world at 0.6% of their real value (Fraser and Larmer, 2010). By the 1990s Zambia was rated one of the world's most highly indebted poor countries (HIPC) qualifying it for two-thirds debt reduction provided it adhered to the World Bank-monitored Poverty Reduction Strategy (IMF, 2004). It has been argued by scholars such as Phiri (2001) that despite formal political independence 'neo-colonialism' still constrains Zambia's real freedom and ability to determine its own development. I use the term 'neo-colonialism' here to refer both to the material control of Zambia's minerals and economy (as in the example of imposed Structural Adjustment Programmes) as well as to the subjective and ideological legacy of colonialism as it is reproduced in cultural and political life (Young, 2001).

Examples of Zambia's continuing colonial legacy in the sphere of culture include, but are not limited to, Zambia's continued use of the English language, British common law

and parliamentary system, Christian missionary religion and education, and European dress code (Taylor, 2006). Some scholars consider Zambia's over-centralised state, and reliance upon 'strong-man' politics, to be a hang-over from centralised colonial power structures and modes of domination (Young, 1986), and likewise see the gendered social constructs of 'male bread-winner' and 'female housewife' as historically specific colonial legacies⁶⁶. Alice Evans (2014) has argued that colonial, capitalist and patriarchal ideologies were perpetuated by means of government agencies, Christian churches, mission school and state-controlled media. In a telling illustration of the intersection of the interests of patriarchy and corporate capital, Evans (2014) points to the fact that mining companies provided classes for miners' wives in domestic skills in order to make miners' wages go further and keep the cost of labour as low as possible. In my research the extent of imperial determination over Zambia's mineral resources and mode of economic production, as well as over the nation's cultural formation are both relevant because it will be argued that they are co-determinants of people's preferences, consciousness, and agency.

5.4 Ethnicity

The importance of ethnicity in the distribution of opportunity and wealth is under-researched and insufficiently understood in Zambia (Erdmann, 2007). The geo-political boundaries drawn on the map of Africa by the imperial powers at the Berlin conference in 1884-5, and which now constitute the borders of Zambia, divided existing ethnic groups into different countries. In the case of Zambia, 70 sovereign ethnic groups were thrown together into a single body politic under foreign dominion. The 70 ethnic groups

⁶⁶ This is not to claim that there were not unequal gender relations prior to colonialism. The claim here is only that new culturally and historically specific forms were produced and sustained to serve colonial interests (Parpart, 1988).

divide into 7 main language groups and in public discourse Zambians generally speak of themselves with reference to these 7 groups as being, for example 'Bemba' or 'Bemba-speaking', 'Tonga' or 'Tonga-speaking' (Posner, 2005). The proportion of the population falling into these language groups is Bemba 39%, Nyanja 21%, Tonga 14%, Lozi 7%, Lunda 2%, Luvale 2%, and Kaonde 2%, Others 13% (ZCSO, 2014). English is an official language in Zambia and is the language of secondary and tertiary education; whilst less than 2% of the population speak English as their primary language, in the 2002 census 26% of Zambians listed English as their second language.

Whilst there is a high-level of ethnic harmony and inter-marriage in Zambia, there is also a significant correlation between ethnicity, political power and patronage (Posner, 2005; Erdmann, 2007). The three political parties that have successfully formed governments in post-colonial Zambia, the United National Independence Party (UNIP), the Movement for Multi-party Democracy (MMD) and the Patriotic Front (PF), whilst enjoying support from individuals of many ethnicities, all have been identified as Bemba-orientated parties (Posner, 2005; Erdmann, 2007). The UNIP government of 1964-1991 was a broad coalition of elites from the main language groups but was often identified as a Bemba party (Posner, 2005) as were the MMD governments between 1991-2001 and the current PF government (2001 to date). Though Erdmann's research identified multiple motivations for voters' political preferences, including manifesto policies (75%) it also affirmed that 52% reported that ethnicity was a major factor in their voting patterns. According to Posner's (2005: 91) research, voters use ethnicity as a guide as to how that person will distribute patronage resources if elected; that is, *“Zambians assume that having a person of their own ethnic group in a position of power will increase their access to the flow of patronage resources”*.

Women's representation as candidates and elected representatives in Zambian politics is very low as is the consideration of women's issues in political discourse. In the most recent national election the two main parties, MMD and PF, fielded 15% and 17% candidates respectively and overall women constitute only 11% of members of parliament. At local government level 93% of mayors and councillors are male. Edith Nawakwi did run for President in the 2015 election; she came in third place but with less than 1% of total votes cast.

In this research gender inequalities became a core focus. However, as is the case in other countries, in Zambia women do not constitute a single homogeneous group. In a country with such a high Gini coefficient, and where power has an ethnic dimension, gender intersects with other dimensions of structural inequality. The effective influence over political power and of the resource flows of patronage by elite group males from the dominant ethnic groups points to an interlocking matrix of oppression (Hill, 2000) structuring (dis)advantage among Zambians along dimensions that include class, gender, and ethnicity.

5.5 Gender in Zambia

Patriarchal power and gender discrimination pre-date colonialism and capitalism in Zambia (Parpart, 1988) but under colonialism, I will argue below, they took on particular forms, some elements of which endure today. Traditionally Bemba and Tonga cultures were both matrilineal and matrilocal, descent and inheritance were calculated through the maternal line with the husband moving to the village of his wife's family after the marriage ceremony (Colson, 1951; Wright, 1983). Although it was general

practice for married men to assume the status of 'head of household', matriliney effectively limited the rights, authority and control of husbands over wives (Evans, 2014) and whilst a gendered division of labour existed prior to colonisation, there was, according to scholars such as Colson (1951), a relative economic interdependence. Historically women as well as men could, and did on occasion, assume the most senior ranks in society including notably Mma Motshisane, the Makololo Chief Morêna of Bulozhi (Schapera, 1961).

During the colonial period the British overrode existing custom and began appointing their own Chiefs and Headmen without reference to pre-existing practice (Richards, 1968). Chiefs appointed by customary methods by villagers served the interests of the community, but Chiefs appointed by colonial officers served colonial interests by collecting colonial taxes, recruiting forced labour and disciplining transgressors (Vickery, 1986). British common law was imposed by colonial courts precipitating a move away from matrilineal succession and inheritance to also include property passing from father to son (Colson, 1968; Richards 1968). Colonial courts reinforced the imposition of a cash-economy, wage-labour, cash-crops and legal property relations (Colson 1968; Parpart, 1986; Evans, 2014). As a result of these changing norms and the, sometimes contradictory, confusion of Zambia's dual legal system (customary law / statutory law), inheritance is often a cause of conflict resulting in violence against widows, as her home and other assets fuel competing entitlement claims (UN-Habitat. 2005). Customary law varies across Zambia's seventy distinct ethnic groups and Zambia's customary laws often clash with Zambian statutory law and with the international conventions to which Zambia is a signatory. Customary law often prevails in rural areas, whilst statutory and international law often takes precedence in urban

areas. Women with the substantial financial means necessary to contest inheritance in urban courts may be more likely to secure a favourable outcome by appealing to rights enshrined in these legal instruments (HRW, 2002) illustrating how gender, ethnicity and class determinants intersect to affect a Zambian woman's freedom and ability to secure her legal rights and entitlements in practice.

5.5.1 Reproduction of Gender Relations

The means by which gendered relations are reproduced in Zambia is of significance to this research, focused as it is on the efforts of women to overcome socially constructed impediments to their freedom of employment and economic independence. Research participants reported tradition, religion and education as key institutions in reproducing gender relations.

Mizinga (2000) has documented the role of the colonial church in promoting female subservience and domesticity as cultural values among the Tonga of Southern Zambia. Missionaries sought to impose insoluble, monogamous marriage by denying divorce to Church-members (Parpart, 1988). This missionary influence was compounded when colonial officers appointed male Chiefs and gave them authority to substantially increase *labola* or bride-price in order to restrict women's freedom to leave violent or otherwise unsatisfactory marriages⁶⁷ and by 'repatriating' to their husbands women fleeing such marriages (Evans, 2014). From this perspective part of the colonial legacy may be seen as a movement away from economic interdependence between the sexes and towards gender relations characterised by female economic dependence and male

⁶⁷ If a woman left her husband her family would be liable to repay the bride-price, potentially causing them financial hardship as well as public shame.

domination (Parpart, 1988; Mizinga, 2000; Evans, 2014).

In the Tonga culture of the Southern Province, as in other Zambian cultures, the inter-generational socialisation of prescribed behaviour for girls and women occurs traditionally, taking place through formal rites of passage at puberty and marriage (Colson and Gluckman, 1968; Geisler, 2000; Tembo, 2012; Abraham, 2014). The modality and content of these initiation rites differs across ethnic groups and continues to change over time and space (Mususa, 2014). However one common element is the seclusion of the girl initiate with female elders for a period of days or weeks in order to receive instruction on how to please their husbands and how to conduct themselves with 'propriety' (Colson, 1958, 2006; Abraham, 2014). This propriety translates into conducting themselves in conformity with socially-constructed and gendered conventions of behaviour, including the requirement to avoid eye contact with men and to silently quiesce to their husband's demands whether reasonable or not (Longwe, 1985; Mususa, 2010; Abraham, 2014). Increasingly these initiation rituals are being replaced by the bride's '*kitchen party*', which is a women-only event that combines a shorter period of seclusion with female elders. Female elders teach the bride-to-be how to 'please the husband' - at a party in which gifts are given to furnish the brides' *kitchen*. The ritual symbolically marks her new place as a woman (in the kitchen) and her gendered domestic and reproductive role (Mususa, 2014). As the following chapters will illustrate these social conventions form one element of the social mechanisms through which gender (dis)advantage is actively (re)produced. That this form of gender (dis)advantage is (re)produced in a women-only setting - as an outcome of the (uncritical) agency of women - is of note in relation to the concept of internalised oppression introduced in Chapter 2. I would argue this is analogous to Sen's example of

son preference, in that increasing the agency and power of women would not provide a solution. Like son preference it is an example of where critical-agency is more efficacious. Women's critique of this practice – of what interests are currently being served by it, as well as what alternative action might better serve their common interests – are a means to inform social action to reform these practices. As illustrated by the making of the film, *Three Generations of Zambian Women* (see section 7.2.1) women in Zambia are acting to progressively revise and end these practices in ways that reform unequal gender relations.

5.5.2 Resistance to Gender Roles

It is important that development research does not construct women as passive victims awaiting saviours. Zambian women past and present have found creative and fruitful ways to resist oppression, Asikana Network itself is one such manifestation.

The enforced urbanisation around copper mines that accompanied colonialism did present some Zambian women with opportunities to resist prescribed gender roles. When exposed to urban opportunities, women often eschewed early marriage, monogamy, and life as a dependent housewife in favour of the relative autonomy of independent living and working (Parpart, 1986). This emancipatory impulse was actively resisted by both customary and colonial patriarchy. Mining companies made accommodation accessible only to women living with their husbands and on production of a marriage certificate and the 'Native Authorities' were given power to demand that unattached black women required special permission to travel to urban areas. However, such were the 'arts of resistance' (Scott, 1990) deployed by Zambian women (including repeated returns and uses of each others identities) that both Chiefs and urban courts

eventually desisted their practice of 'repatriating' single women back to their villages (Evans, 2014).

Not all Zambian women resisted prescriptive gender roles, many chose the social acceptability of publicly conforming most of the time (Parpart, 1986). Prescribed gender roles were further reinforced by elements of the Zambian local elite who chose to mark their high social class status by ostentatiously adopting the dress, language and dispositions of the colonisers (Parpart, 2001; Evans, 2014). From this perspective the move from colonial domination to domination by local elites brought little in the way of gender freedom to Zambian women. That national political liberation did not deliver women's liberation in Zambia was a point well made by Zambian feminist Sarah Longwe (1985) in her legal test case against the Hotel Inter-Continental. Longwe was refused entry on the basis that she was an 'unaccompanied women' despite the fact that unaccompanied black men and unaccompanied white women were able to enter. In her test case she asked whether national independence was intended to deliver freedom to all Zambians or only to male Zambians (Longwe, 1985).

5.5.3 Gender Inequality Today

The United Nations Gender Inequality Index for Zambia (UNDP, 2014) continues to reflect gender disadvantage in reproductive health, empowerment and the labour market. Zambia ranked 135 overall out of 152 countries for which data was available. The data shows that only 25% of Zambian women over the age of 25 had any secondary education compared to 44% of men and an employment rate of 73% for women compared to 85% for men (UNDP, 2014). There has never been more than 15% female representation in the Zambian parliament (currently 11%). Zambia did achieve the 2015

Millennium Development Goal of universal primary school attendance for girls and boys by 2010 but removal of girls from secondary schools due to pregnancy, early marriages and lack of fees continues to negatively affect girls' overall secondary school attainment relative to boys (ZCSO, 2000). Overall women in Zambia continue to be under-represented in primary, secondary and tertiary education, leave school earlier and are employed less, and earn less than men (UNDP 2014; ZCSO, 2009).

Levels of violence against women in Zambia are alarmingly high and often considered to be both justified and normal by both women and men according to data from the Zambian Demographic Household Survey (ZCSO, 2009). Of the 7,142 Zambian women surveyed, almost half (47%) reported having experienced physical violence since they were fifteen years old. 20% of Zambian women report having suffered sexual violence; 60% of them from their husband at the time. Half of the women who had suffered domestic violence said that they had never sought help from anybody (ZCSO, 2009). The Zambian Demographic Household Survey (ZCSO, 2009) collected information on the degree of acceptance of wife beating. Of the seven thousand women surveyed, 33% felt a husband was justified in beating his wife if she burns the food; 43% thought a beating was justified if she argues with him; 42% of women felt that a beating was justified if she goes out without telling him or if she neglects the children; and 36% felt a man was justified in beating his wife if she refused to have sex with him. Overall, 62% of women interviewed felt that a man was justified in beating his wife in at least one of the situations. Although the justification percentages showed no trend over wealth quintiles, the percentage of women judging beating to be justified in at least one situation was far higher (68%) for those with only primary education than for those with tertiary education (20%). These entrenched views about women's subservience to men,

internalised by women, and passed on, as we shall see in the evidence of research participants, in part by mothers (and fathers) to daughters, and female (and male) elders to girls, exist as structural constraints to female emancipation and human development and will form a significant part of the empirical chapters that follow.

5.6 Conclusion

In this chapter I described the Zambian national context in which this research took place. I do so on the premise that the research cannot adequately be understood without reference to these contextual factors that co-determine the subjectivities and effective freedoms of Zambian women and men. Important amongst these factors are the history of colonialism and the gaining of independence, and the material and subjective oppression and resistance experienced and internalised in the individual and collective consciousness of Zambian women and men. These factors are particularly relevant in answering sub-research question RQ1.1 which asks what contextual political, economic and social contingencies affect this research.

Since independence, a local elite of Zambian, mainly Bemba, men have assumed a disproportionate share of political power and economic wealth. The interests of all ethnic groups are not evenly represented by this political class, and women continue to be disadvantaged in ways that intersect with class and ethnicity. From this perspective, though the dominant elite is no longer foreign and White, ordinary Zambians continue to experience (dis)advantage structured along familiar dimensions of ethnicity, class and gender.

It may be worth noting that there appears to be some symmetry between the modes of imperial domination, male domination and dominations of 'race'-ethnicity and class. Each requires that the subjugated serve the interests of the dominating party by providing their labour, and in each case domination is backed by the use (or threat) of violence (hooks, 2000). In each case the contest for domination/emancipation has both subjective and material dimensions, requiring a (de)colonisation of both minds and mines. Finally, despite the threat of violence, resistance is always fertile, the dialectic of oppression and resistance is unresolved and the eventual outcome remains undetermined.

Chapter 6. Conformist Practices: Coping with Constraints

In these next three chapters I present and analyse research findings using Buskens' (2014) 'conformist-reformist-transformist' categorisation as a conceptual ordering device. In doing so no grand theoretical claim is being made for these categories; in practice the category boundaries are both fuzzy and porous. Conformist and reformist activities can often be essential prerequisites or accompaniments in order to make transformist activity possible. Conformist or reformist activities may also be considered to have 'transformatory potential' (Young, 1993), especially when considered contextually and as part of a wider programme of activities such as that of Asikana Network. Kate Young (1993: 156) has suggested the notion of 'transformatory potential' to indicate the, "*capacity ... for questioning, undermining or transforming gender relations and the structures of subordination*". Young's description is particularly apt for this research as it speaks directly to the two core elements of critical-agency: the questioning of existing gender relations, and action to transform structures of subordination. Young's concept of 'transformatory potential' thus provides a potential conceptual bridge between Sen's questioning of existing gender norms and critical theories' intent on transforming structures of subordination.

Chapter 6 examines those of Asikana's activities that can be considered 'conformist' in the sense of Buskens' definition, i.e. activities carried out with the intent of enabling women to better cope with existing unequal gender relations (rather than having the explicit intention to reform or transform them). Chapter 7 examines Asikana activities that, using Buskens' categorisation, are mainly reformist, in that they are intent on existing unequal gender relations (but without having the intent to transform the power structures that give rise to and support those relations). Chapter 8 considers Asikana activities that go beyond

reforming unequal social relations to also address the structural power interests that (re)produce women's subordination and male domination. I accept at the outset that social reality is more complex than these three neat categorical distinctions imply. In practice activities cross categorical boundaries. However I find the categories to be valuable in thinking through critical theory and practice, including the use by Asikana Network of participatory video to enhance critical-agency. People have good reason to value conformist activities, as I do myself, however at the same time I would argue that, by definition, no amount of conformist activity can result in overcoming the power interests that structure unequal gender relations. Likewise there is good reason to value reformist activities and yet I would argue that no amount of reformist activities, in and of themselves, can overcome the system of patriarchy which gives rise to, underpins and sustains unequal gender relations⁶⁸.

In this chapter I do three things. I focus first on the discrimination and unfreedoms reported by research participants as constraining their ability to pursue employment in the technology sector on a basis of equality with men. Secondly, I reflect upon Asikana's use of participatory video and other activities to address this (dis)advantage. Finally, I assess whether these activities enhance critical-agency for development using the capability approach and critical theories as conceptual lenses. The consideration of constraints on women's equality of freedom and ability to work in Zambia's technology sector speaks

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Here I am interpreting Buskens' in arguing that no amount of conformist or reformist activity can – in and of itself – overcome the structures of patriarchy. It is worth noting, building on hooks (2000), that this argument has clear analogues in other dimensions of domination relevant to intersectional analysis (Crenshaw, 1989). I would argue it is also true that no amount of conformist or reformist activity – in and of itself - can overcome the structure of White supremacy/racism that (re)produces unequal 'race' relations. No amount of conformist or reformist activity – in and of itself - can overcome the structures of capitalism that (re)produce unequal class relations, and no amount of conformist or reformist activity – in and of itself - can overcome the structures of imperialism that (re)produce the unequal relations between nations.

most directly to research questions about the relationship between participatory video and contextual social and political factors (SRQ1.1), and personal factors (SRQ1.2) including self-efficacy, communication and technical skills.

6.1 Identifying Constraints

In this section research participants explain their experiences of discrimination, the social construction of gender roles at home and school, and the gendered division of labour in the home and workplace. These constraints are organised in section headings that arose as themes from the open coding of films, interviews and focus group conversations during data analysis. The analysis of these constraints is a prelude to presentation of further findings in Chapter 7 regarding the institutional mechanisms by which these constraints are (re)produced, and their underlying causes, and in Chapter 8, the structural power interests that give rise to and sustain these constraints.

6.1.1 Constraints of Place

When asked, in the course of the participatory video process, and later in interviews and focus groups, what challenges women faced in the ICT sector, 'space' and 'place' were prominent themes. Whilst research participants used the two terms synonymously, in academic human geography the terms space and place are often assigned distinct meanings, although such definitions are contested and change over time (Hubbard, 2011; Cresswell, 2013). Tuan (1979) is amongst those for whom 'space' is reserved to refer to the general and more objective 'where' of a location; whereas 'place' refers to the socially constructed and subjective 'meanings' that people give to a place. If this distinction is accepted, it is possible to say that place is a space which has meaning (Harrison, 1996). From this it follows that a single space can be experienced as a different kind of place by

different people (and at different times).

In this research participants reported experiencing the home in general, and the kitchen in particular, as having been socially constructed as women's place, and the maths and science classroom and the technology workplace as having being socially constructed as men's place. This ascription of place, and the unequal division of labour that it 'legitimizes', results in men having paid work of high status and power, and women having unpaid work of low status and power, with the effect of reproducing unequal gender relations. Asikana members describe experiencing this social construction of place and gender as mutually reinforcing elements of their inculturation⁶⁹.

...if you talk about technology they will be like 'No, you're supposed to be in the kitchen'. You will find that your brother is outside, playing with cars, toys, planes, trying to figure out where this bit goes, but you will be in the kitchen washing dishes; you'll be there sweeping. I think it's the culture, how we are brought up.

Mercy, ID-13-PV2

Mercy was amongst those research participants who described the efforts of family members to confine her movements and aspirations to the domestic sphere. When girls were permitted to work outside the home they were often directed toward occupations socially constructed as 'female', such as nursing or primary school teaching, and discouraged from further studies in science, technology, economics or maths (so-called

⁶⁹ I use the term inculturation to refer to the process through which an individual learns the norms and values of a culture through experience, observation and instruction.

'STEM' subjects) which have been socially constructed as 'male'⁷⁰. Although in Zambia under-representation in STEM subjects is compounded by higher drop-out rates amongst girls due to early marriages, pregnancy and financial concerns (UNESCO, 2012) even in countries where girls' school enrolment and attainment equals or exceeds that of boys, girls are under-represented in STEM subjects and in senior technology roles (OECD, 2011). Under-representation of girls in technology education in Kenya is one of the findings of research by Omamo (2009) that explains low levels of female representation in ICT.

They have been told they can't do it, you know 'science and maths are for the boys, and home economics and literature for girls only', that kind of thing, so then they have lost their self-confidence.

Bella, ID-28-PV3

Bella and other research participants described how gendered roles are inculcated and internalised by girls (and boys), in the home, school and workplace, by means of gendered chores and toys. Although research participants made it clear that change is taking place in Zambian schools, boys still dominate the science laboratories whilst girls are steered toward the humanities. The inculcation of gender norms and values continues outside of the home and school, and extends further, through to the workplace.

When I go for interviews, they would say 'no we wanted a man to do this job', because if you are a woman ... you would be giving them excuses. 'The children' and what not. They said they wanted a man, not a woman

⁷⁰ There exists an extensive literature about the gendered construction of technology labour processes in the global north (Cockburn, 1985; Webster, 1990; Wajcman 1991, 2004) but to date little about Zambia.

for the job. It makes me feel bad, feel demoralised, that's why I'm even thinking of doing something else.

Irene, ID-36-PV5

I think that women tend to think that technology is only a man's job.... They're are used to seeing a man do it so that's how they see it. It's a man's job. Same thing with like cars.

Elizabeth, ID-32-PV4

As Irene and Elizabeth's experience testifies, if women are not dissuaded from their preference for technology in the educational arena they can expect to encounter further discrimination in the employment arena. Irene reported explicit gender discrimination during the recruitment process whilst Elizabeth speaks to the demonstration effect of existing under-representation of women in the technology workplace in reproducing the perception that technology is something done by men.

We are faced with discrimination and prejudices. It is difficult for a woman to get a technology-related job and when they do it is difficult to be promoted. There is no equality of opportunities.

Fortune, ID-35-PV5

Fortune was amongst the majority of research participants who commented on the discrimination and disadvantage experienced by women in Zambia's ICT sector. Her claim that it is more difficult for women to get promoted to senior positions resonates with 'glass ceiling' evidence from other countries (Cotter, 2001; Burke and Mattis, 2007; Appelbaum,

2011; UNESCO, 2012). When I interviewed the male members of BongoHive they confirmed Asikana members' impressions; almost⁷¹ all men interviewed reported that women were under-represented in technology in general, and in senior roles in particular, and attributed this inequality to various aspects of gendered inculturation.

More oppressive forms of male domination were reported by some research participants who sought employment in male-dominated workplaces, including being undermined, disadvantaged, and sexually harassed⁷².

I said I can send you my CV ... and he was like 'no, let's go for a nice intimate dinner' ... and he was a lot older than me, and I've heard that he does that with other girls and even more straightforward as going to say 'if you want this job, you will sleep with me'.

Eloise, ID-44-PV7

It happened to me like once or twice ... a certain man told me that he would employ me, the following day I went there and then he said 'lets go and discuss this privately' ... I'll employ you, you'll be getting this amount of money' ... but you have to promise me you'll be a good girl' and I was like 'how' and he said 'you're a big girl you know what I mean'. I lost the job anyway.

Lois, ID-40-PV6M

⁷¹ In common with female interviewees a small number of males said that they did not know what the levels of gender representation were but the majority saw evidence of women's gender disadvantage.

⁷² I am using the following definition of sexual harassment which is used both in Zambia and the UK: any unwanted behaviour or conduct of a sexual nature which can take physical, verbal or non-verbal forms.

As the testimonies of Eloise and Lois suggest, male-domination of the technology workplace can take multiple forms including that of sexual harassment. Eloise was from a relatively privileged family of diplomats and had attended the most expensive schools in the capital cities of several countries; Lois was from a relatively impoverished background in rural Macha, which suggests that some gender discrimination cuts across class and educational privilege. University of Zambia researcher Precious Zandonda (2010) confirms the prevalence of this particular aspect of male abuse of power; she found that 69% of women interviewed had experienced sexual harassment in Zambian workplaces. Separate research by Rose Kavimba (2006) puts the figure at 75%.

As the above examples illustrate, Asikana research participants report experiencing gender-based discrimination and disadvantage at multiple points in their journey to pursue their preference for technology education and employment. Those who overcame the efforts of family members and teachers to adapt their preferences away from technology, and gained entry-level qualifications, experienced discrimination and disadvantage during recruitment and in the workplace, which is numerically male-dominated and can be inhospitable and even hostile to women. The cumulative effect of persistent discrimination is that many women adapt their preference for technology careers and seek employment elsewhere; as Irene said above *“It makes me feel bad, feel demoralised, that's why I'm even thinking of doing something else”*.

In my research the gender inscription of place was most clearly illustrated by one word: *'kitchen'*. Despite the word not being used in any of my questions *'kitchen'* was used more than 50 times by research participants.

We bring up women in the kitchen and we tell them this is where you belong, and the man is the person who should go outside and get the money to feed the family.

Mercy, ID-13-PV2

Tradition has always told us that a lady's place is in the kitchen.

Justine, ID-39-PV6M

According to research participants, from a young age Zambian girls are burdened with domestic chores that serve to inculcate that their 'place' is in the home, alongside their mother, cooking, cleaning and caring for siblings. Boys and men are relatively exempt from such duties. This confirms findings of other empirical research by Zambian researchers including Sarah Longwe (1985), Patience Mususa (2014) and Kiss Abraham (2014). From a more theoretical perspective, feminist geographer Doreen Massey (1994) has shown how gender and place are mutually constitutive; places are themselves gendered and in being so, affect the ways in which gender is constructed. On one level the kitchen is literally a 'woman's place'; the space to which her mobility is prescribed. On another level the kitchen can be interpreted as a metaphor for the broader gender constraints to women's freedom, and subjection to patriarchal dominion more generally (Spanos, 1995). The relative limiting of women to the 'domestic sphere' calls to mind Freire's (1970) use of the term 'domestication' to describe a taming of oppressed people to 'know their place' in the dominant social order. According to Freire, once oppressed groups internalise their subservient roles they become self-oppressing, by self-disciplining themselves to conform they reduce the need for overt oppression. Asikana research participants described the intergenerational role of elders in (re)producing the social construction of women's place.

It goes back to elders. It's a thing they keep on telling to the next generation. They think they are putting us on the right path but it leaves us without much decisions. They just think our place is in the kitchen.

Beauty, ID-23-ANF

The acculturation of young women like Beauty to know their place occurs, then, through a public pedagogy⁷³ of socialisation effected by community elders, by family members and teachers, and, as I show in other sections, by religious leaders and community elders. This public pedagogy teaches girls and women that they are less than men, and that they should expect less than men (Babcock and Laschever, 2003). One of the research participants with whom I built up a strong co-working relationship was open and critical of such social constraints when speaking to me alone or in the company of her female age-peers but when I invited her to comment on exactly the same subjects in the presence of men older than herself she became silent and fixed her gaze on the floor. She later explained that she was conforming to the cultural convention (discussed in Chapter 5) that girls and women were only to speak after men had finished speaking, and that she was not to look older men in the eye.

In this research, participants identified ways in which kitchens, classrooms, and workplaces were socially constructed as gendered places in ways that generally constrained women's freedoms in relation to those of men. This would seem to add weight to Massey's (1994: 179) claim that gendering *of place* and gendering *by place* effectively limits women's mobility in terms of identity, occupation and workplace and serves as a

⁷³ Public pedagogy is a term used by feminist and critical social theorists to refer to the ways that individuals are socialised outside of formal education by means including TV News, advertising, internet and other mass media (Giroux, 2004, Sandlin, 2011).

'*crucial means of subordination*'. The next section will examine the related issue of time constraints on women in relation to that of their male siblings.

6.1.2 Constraints on Time

In my original research design I anticipated working with a single cohort of Asikana members for several months on participatory film-making. With hindsight this was naïve. Securing permission to attend, as well as travel fares, from their parents or husbands was a challenge even for a single week *let alone* a period of months. The young women that make up Asikana's membership are predominantly aged 18-23 years and their free time was a matter of negotiation with parents and husbands. When I asked research participants during the participatory video process, and in subsequent interviews, whether there were any limits on their ability to attend Asikana activities almost all reported that Zambian girls and women had significantly less 'free time' than boys and men.

After school, she as the girl child, she has to do the dishes, and then the boy goes and plays, or maybe the girl will be told 'when you come back from school, do this and this' you will be given a set of responsibilities.

Justine ID-39-PV6M

As Justine's example illustrates, a division of domestic labour exists with girls being assigned domestic responsibilities such as cooking and cleaning from an early age, whereas such responsibilities generally do not apply equally to their male siblings.

[Girls'] responsibilities are like washing plates, cleaning the house, traditionally in Zambia boys do not do that. So maybe someone will be

very busy with the housework and they do not show up for workshops.

Lois, ID-40-PV6M

Lois explains how these gendered responsibilities practically impinge upon the freedom of girls and young women to take part in discretionary activities, which they may have reason to value. Whilst not free from domestic chores, boys enjoy less onerous responsibilities, leaving them with more free time to explore outside the home. This is significant in the context of human development in as much as gendered time-constraints reduce women's substantive freedoms to engage in other activities that they have reason to value (Sen, 1999; Kleine, 2013). This Zambian experience is echoed in research from other countries. Kleine (2013) has shown how gendered social norms on time usage meant that Chilean women's 'free' time was significantly constrained by their household duties. Reviewing (mainly UK and US) time-study literature, Wajcman (1991: 95) concludes that leisure time is 'deeply divided along gender lines' leaving women a lot less free time than men and boys, a finding echoed by Statistics South Africa (2001) in their studies of time use by gender in South Africa. Interestingly for scholars of technology and development, both Wajcman and Statistics South Africa conclude that increased access to domestic technologies had little effect in redressing this inequity⁷⁴. These findings seem to lend weight to Molyneux's (1985) claim that questioning and overcoming the unequal intra-household division of labour between women and men is the strategic gender interest that needs to be addressed in order to extend women's freedoms.

⁷⁴ This seems to be because the availability of productivity tools does not negate the power (of patriarchy) to (re)define the domestic division of labour. In the industrial workplace when new technology makes workers more productive the worker does not benefit by getting to leave work early, but is instead allocated additional tasks and responsibilities. So it is in the context of domestic labour; if a washing machine increases the productivity of the person doing the laundry any time 'saved' can be reallocated to additional domestic tasks and responsibilities. In this sense 'a women's work is never done'.

She has so much to do that she cannot leave the house, she has got children and so much to do. Whereas a man would just walk out of the house. The woman cleans his clothes, his shoes, everything, puts water for him to bath. The woman has so much to do.

Charity, ID-01-PV6M

When such tasks are socially constructed as women's work, as Charity's example illustrates, marriage and the arrival of offspring further constrains women's time relative to men's (and further ties them to a 'woman's place'). As Sally Wyatt (1985) and her colleagues discovered in analysing the time-budget data in the UK, the presence of a man in a household increases women's domestic work by one third, whereas in contrast for men, living with a woman reduces their domestic workload (quoted in Wajcman, 1991). This unequal domestic division of labour - attending to the wishes and needs of a husband and children as well as keeping the home clean and tidy - significantly reduces women's opportunities for activities they might otherwise wish to prioritise outside the home.

A man usually at home is given more freedom of movement than a woman, mostly, because men just wake up in the morning, eat and start going out. For women we have to really wash the dishes, do all the chores at home, before you even leave, and sometimes those things are quite too much so that you're not even given an opportunity to go out and learn something.

Susan ID-29-PV3

Susan's example is further evidence of how gendered ascription of roles and assignment of

responsibilities can consume all of a woman's 'free-time', reducing her freedom of movement and so effectively curtailing her substantive opportunities for activities she may have reason to value such as further education or career and personal development. These research findings also echo those of Munachonga (1988) and Wold (2007) who found that Zambian women and girls are required to perform the overwhelming majority of housework and childcare, resulting in limited autonomy over their own time (Mbozi, 1991) or what Wajcman (2008, 2015) and Bardasi and Wodon (2000) refer to as women's 'time poverty'. Crucially, according to Kleine (2013: 47), it is the combination of available time and degree of control over it, this 'self-controlled time' that is a vital resource for women wishing to realise their agency in development.

Men tell women what to do, and women don't tell men what to do. So for example if a woman has two kids, she wouldn't leave the children to come and do the course, but a man, even if he had two kids, he would leave them and come and do the course, so that is the difference.

Charity, ID-01-PV6M

They [the women] are doing the housework, and usually for married people, it's difficult [to attend activities outside the home], whereby you need to ask for consent from your husband. If they say no, you can't say the opposite, you just have to obey. I don't know, that's just culture, that's just the way it is.

Anne, ID-14-PV2

As the experiences of Charity and Anne illustrate, the unequal apportioning of domestic

responsibilities and women's relative domestic confinement is not the result of some amicable agreement but is rather a reflection of power relations, of men's power over women. Men exercise power in telling women what to do, a power that is denied to women. As a result of the exercising of this 'power-over' (Lukes, 1974) women have less free time and less discretion over their use of time (Guijt and Shah, 1998), a fact that constrains their ability to engage in a range of other activities that they may have reason to value. Anne's comment, "*that's just the culture, that's just the way it is*", indicates both her perception of injustice and her resignation to its supposed inevitability. This supposed immutability of culture I return to in Chapter 7.

These research findings resonate with the work of other scholars who have identified the domestic division of labour as structuring women's disadvantage. Davis (1982) and Moen (1989) are among researchers who have characterised women's productive and reproductive roles as a 'double burden' and Moser (1993) adds voluntary community activities to coin a 'triple-burden' (but see also critique by Kabeer, 1994). These distinctions aside, what is clear is that the socially constructed gendered roles of 'houseworker', 'housewife', 'home-maker' 'wife' and 'mother' tie these Zambian women to place, reducing their mobility, at the same time as impinging on their discretionary free time, relative to their male counterparts.

The cost of transport was also a constraint on some members' ability to attending Asikana activities. Not all women were equally affected. Those living close by in the middle class suburb where Asikana was based were less affected than those coming from the working class locations on the other side of town.

This place is just so far from home, you need a lot of money to get here, so that maybe mama will be like 'today I don't have'. So you go today and don't go the other day.

Hannah, ID-17-PV2

Location basically means transport because for you to get to the people and for the people to get to you they're going to need transportation, and most of them can't really afford it.

Lesley, ID-42-PV7

Research participants had to spend different amounts of money and time, travelling a variety of distances, to attend group activities including the participatory video workshops. Hannah did not come from a wealthy background and her family struggled to provide the bus fare for her to attend every day. Other participants were collected by car by family members, or could afford to catch a taxi. Lesley lived closer but was able to see that for other members, especially those who travelled furthest from the informal settlements, the cost of transport was a material issue. The most expensive journeys involved catching several different buses from the working-class settlements located furthest from the distinctly middle-class suburb of Lusaka in which BongoHive was located. Although both Hannah and Lesley were from Asikana, at the workshops in rural Macha one participant, Diana, without access to a vehicle or money for the bus, walked two hours each way to attend the participatory video workshops. So although the workshops were themselves free of charge, participants incurred financial costs as bus fares, and opportunity costs as time spent, which acted as inhibitors as indicated in the quotes by Hannah and Lesley above.

The extra challenges faced by women living in peripheral locations and without access to cash or to vehicles illustrate some of the intersections of class and gender as they affect women's participation in these group activities (Crenshaw, 1989; Collins, 2000).

6.1.3 Constraints on Voice

In addition to the limits of place and time, the *voice* of girls and women in Zambia is constrained in relation to that of men. In their interviews, focus groups, and in the participatory film-making, research participants demonstrated the ways in which women were 'schooled' to be silent in relation to men, as well as the repercussions that this has for other substantive freedoms. This is important because, according to the United Nations, the consequences of women's silencing are detrimental not just to her freedoms, but also affect her welfare, as well as the welfare of those in her care (UN-OHCHR, 2013). I will relate the experience of silencing of Zambian women to Freire's (1970) concept of a 'culture of silence' and Sen's (2013; 285) '*silent resignation of Indian women.*'

The previous chapter examined the inter-generational inculturation of gender norms and values through formal rites of passage at puberty and marriage (Geisler, 2000, Tembo, 2012, Mususa, 2014, Abraham, 2014). It was noted that the transmission of the gender norms and values happened in a women-only context in which female elders taught girls how to treat men and how to perform deference in their company..

It's because of what they've been taught, for example ... the elders, the grandmothers ... before they get married ... you go to that woman, you stay there for some days, and they'll be teaching you those things.

Alma, ID-03-PV1M

Women are not permitted to tell any men (and by extension not a White male researcher like myself⁷⁵) the details of these initiation rites, however it is clear that they reinforce what Zambian researcher Kiss Abraham (2014) terms '*a cultural and religious curriculum*' including that a woman should defer her gaze, speak only when spoken to, and understand that her place is in the kitchen. Such prescriptions are also available in book formats including by Mwizenge Tembo (2012) which contains a chapter on 'How girls and women should be raised and their roles in traditional, modern Zambia'. The book contains a section on the '*Gender division of labour and daily chores*', that advises girls, "to cook, wash clothes and dishes, shell peanuts, feed a baby a bottle, and wear pretty dresses" (ibid; 230) and "observe and learn in silence". It further advises that "a girl should not talk back", and should "avoid direct eye contact" (ibid; 66). Being schooled for subservience limits the effective voice of Zambian Women. A research participant put it:

The biggest problem we are facing in Zambia is, as I said, they [women] don't have a voice. They don't talk on their problems, yes ... They think it is tradition that they have to live like that [...] Somehow we heard from our parents that no you [...] do not actually voice out in front of men. We are told not to.

Freida, ID-37-PV6M

⁷⁵ It is difficult to know exactly how or how often my positionality as a White privileged male affected the research process but it was certainly significant in a number of respects. In addition to this example of being unable to attend or learn of the rituals, in the case of workshop facilitation it was also clear that participants benefited from having the technical 'training' led by the young Zambian women who co-facilitated the participatory video process. There were also two participants who were clearly quite shy about interviewing one on one with me, which I have presumed was related to my otherness. One participant declined to be interviewed, which was of course respected. Another agreed to be interviewed but was very shy so I moved quickly through the questions without prompting or probing her responses. In several other cases I was amazed at how open interviewees were and at the intimate details they divulged about sexual harassment and violence they had suffered. Some respondents commented that they appreciated that a man was concerned with issues of gender inequality.

As girls we are taught to be quiet and silent and let the others talk.

Charity, ID-01-PV6M

Freida and Charity were taught by older family members to be silent in front of men and thereby learnt that their opinion was of relatively little value. Such prescription by those with power over them from an early age effectively teaches Zambian girls their place in a hierarchy in relation to men. Some of this pedagogy of silencing women in relation to men takes place in the structured teaching of rules, for example in initiation ceremonies and at school, but it also occurs less formally, but no less effectively, in the home, as Alma explains.

That's just traditional. Men are supposed to be respected ... From the time we are growing up, we are told those things. You don't have to talk when your father is talking ... Maybe you are seated, and men come inside the house, you're not supposed to sit there, you have to come out, leave them to talk their issues

Alma, ID-03-PV1M

Alma's experience is one example of how the male-domination of space and the male-domination of speech intersect and how neither are fixed, but socially constructed. A place of a girl-child's voice and play may, any time that a dominant male enters, be transformed into a place of male voices and male 'issues'. This re-gendering of place and muting of female voice in deference to male voice are mechanisms through which male domination is (re)produced and male power interests maintained.

Whilst it is literally true that women's voice in Zambia is silenced relative to that of men, the reality is more nuanced than male/female or voice/silence binaries. Some women have less voice than others due to factors such as class, marital status and ethnic group. In Macha, despite being a head-teacher, one woman ruled herself out of convening a women's group meeting on the basis that she was not ethnically Tonga and could not therefore command sufficient respect. In a different but related incident, Alma and Charity faced a substantial constraint in their desire to convene a women's group meeting in Macha because convention determined that only married women could head 'women's clubs' and all of their prospective members were young and unmarried. The freedom and ability with which a woman can speak publicly depended, in these cases, on intersections of age, ethnicity, and marital status.

Another sense in which any simplistic voice/silence binary cannot be sustained is that the same women had different levels of voice in different spaces. I often witnessed Alma and Charity performing the prescribed deference to male elders in public spaces in Macha (and to me when I first arrived). However when film-making, in women-only discussions and focus groups, and later in interviews, they openly voiced dissent about gendered conventions and discrimination and articulated a strong desire for change. So whilst it is plausible to speak of women being schooled into a 'culture of silence' (Freire, 1970) *relative to men*, the reality is not a simple voice/silence binary. This research shows that Zambian women's authority to voice is context specific and varies depending on the gender, marital status and on the 'race'-ethnicity of the people present – intersections that lead to different degrees of silencing.

This relative silencing does not mean that Zambian women have no political agency or critical voice. As Chapter 5 illustrated, women played an active role in Zambia's liberation from British colonial rule (Tembo, 2012); they hold elected office⁷⁶ and senior business roles, and have led campaigns for equity and social justice (Longwe, 1985). As Scott (1985) and others have extensively documented 'voice under domination' may not always take the form of publicly voicing (or speaking truth to power). This should not be confused for an absence of voice or agency. Much of Asikana's work, as evidenced in these three chapters, does not manifest itself publicly as critical voice but it all resists the dominant narrative of women's place. As Scott explains *'most of the political life of subordinate groups is to be found neither in collective acts of defiance nor in passive hegemonic compliance, but in the vast territory between these polar opposites'* (Scott, 1990: 136).

Freire's (1970a) concept of a 'culture of silence' does not refer to a literal not-speaking but rather to a silencing of the interests of an oppressed group. In his doctoral research, Freire argued that the 'cultural invasion' of Portuguese colonialism resulted in Brazilian peasants internalising the dominant culture and interests, and was characterised by a muted and relatively passive accommodation of subjugation. In later publications, Freire (1970, 1974) argued that, when persistently subjected to the culture of a dominant group, the oppressed end up interpreting the world through the imposed and internalised norms and values of the dominant culture rather than identifying, voicing, and acting upon their own interests. I take Freire's (1970) description of the 'culture of silence' of Brazilian peasants to be similar to the silent adaptation that Amartya Sen (2013: 285) describes in *An Uncertain Glory*, when he talks of the *'silent resignation of Indian women to the lack of*

⁷⁶ Although only 16 of 150 MPs are female

freedom imposed upon them on the alleged grounds of biological or social necessity ... And – of course – there has been adaptive submission by the underdogs of society to continuing misery, exploitation and indignity'.

Freire believed that the desirable response to such a culture of silence was to develop people's critical voice and agency through a process of conscientisation to enhance their understanding of the social construction of their circumstances as well as their own potential agency to produce alternative social arrangements. I return to this idea of critical voice as it relates to Asikana members in Zambia in section 8.4. First I will address the issue of self-efficacy.

6.1.4 Constraints on Self-Efficacy

In the previous sections in this chapter I have presented evidence of some of the diverse ways in which young women in Zambia are actively discouraged from pursuing education or employment in the technology sector. In this section I examine constraints on women participants' sense of 'self-efficacy', defined as a person's belief in their own ability to accomplish valued goals (Bandura, 1995). I foreground the issue of self-efficacy here because, if we are to take seriously the claims of Freire (1970) and of Sen (1999) that an agency-based approach to human development should be understood as the freedom and ability of disadvantaged people to themselves overcome the unfreedoms that they face, then their belief in their own ability to actualise their valued goals is a fundamental constituent of their agency. A strong sense of self-efficacy is a pre-requisite of acting to realise valued goals.

No research participant used the phrase 'self-efficacy'. More common related terms were

'self-confidence', 'self-esteem' and 'courage'. Whilst it would be desirable to investigate the distinctions research participants made between these psychological concepts⁷⁷, to do so was judged to be beyond the scope of this thesis, and therefore these related terms were all coded under self-efficacy. Kleine (2013) has argued that self-confidence should be seen as one of many 'psychological resources' that, together with other categories of resource, are constituents of agency. For the purposes of this thesis I will consider self-confidence, courage and self-esteem to be constituents of self-efficacy, which is itself a key psychological constituent of agency.

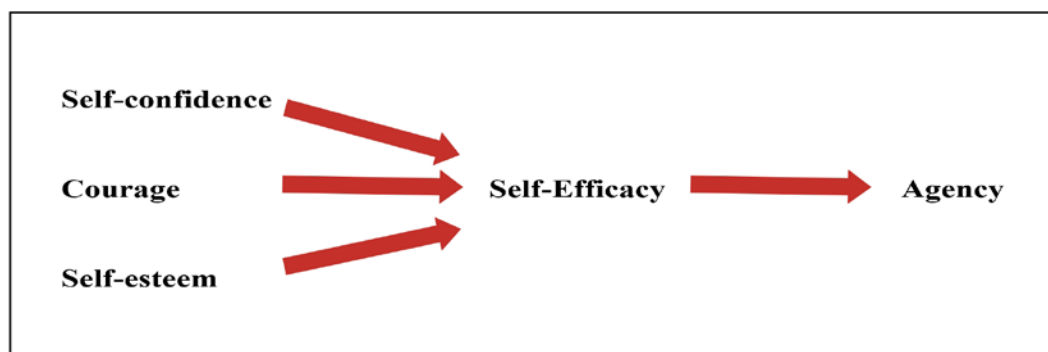


Figure 15. Constituents of Self-efficacy (source: author)

Asikana research participants describe how being 'told they can't do it' by others, leads to low self-confidence, and to depressed self-efficacy (thinking they can't do it).

There are less women in the I.T. department, because they don't have confidence in themselves, or they've been told they can't do it, you know "science and maths are for the boys, and home economics and

⁷⁷ This could be a fruitful area for further research

literature for girls”, that kind of thing. So then they have lost their self-confidence, even when they can do it they think they can't because of the mentality that they have or what others have towards them.

Bella-ID-28-PV3

Bella argues that a lifetime of being told that 'you can't' do something and that this is 'not for girls' negatively impacts on women's confidence. When Bella says 'even when they can, they think they can't' she speaks directly to Bandura's (1995) central finding about self-efficacy; that goal attainment is constrained in fundamental ways by our belief in our ability (rather than by our ability itself). If this is true then domination becomes a self-fulfilling prophesy to the extent that a dominated group internalises pervasive narratives (myths) of their inability.

I was told, point blank, “You can't do this, you can't go and do accounts”, and it was someone from my family who said, “No, you can't go and do accounts because calculations are just usually for men and ... it's going to be very challenging and you'll end up failing”.

Constance, ID-15-PV2

As the experience of Constance illustrates, those who voiced aspirations considered 'out of place' for a girl often found that peers and family members verbally discouraged their preferences. Several interviewees reported resistance to efforts by girls to aspire to anything beyond socially constructed gender roles. In one reported case a father withdrew financial support and refused to speak to his daughter for several years because his daughter refused to conform to his wishes for her career. This illustrates both that gender

prescriptions can be reinforced by power and wealth, and that even when they are they can be effectively resisted.

In Focus Group 1. Asikana participants were asked to identify any factors they considered responsible for under-representation of women in technology, to cluster related reasons and then to rank the factors in order of importance. Top of their list were '*lack of courage/confidence*', '*self-esteem*' and '*women undermine themselves and are undermined by other women and men*' (Focus Group 1). Research participants commented that it was not always men that discouraged them, that women family members also played an active role in reproducing unequal gender relationships. This speaks to the point made convincingly by Dreze and Sen (2012, 2013) that increasing the agency and power of women in situations where they are actively reproducing gender inequity is actually counter-productive. In such circumstances it is critical-agency that is desirable, rather than plain agency, where critical-agency is the ability for women to question and develop a critique of how unequal gender relations are reproduced, and to determine how they might act otherwise in order to disrupt and to transform them.

OK for the low self-esteem it comes from us women ... they look down upon us ... because some men think that we can't do what they can do. Which is not true ... Yes, and that's what brings about the less confidence. We tend to have less confidence in ourselves because of the things that we hear from them. They discourage us making us to have less confidence.

Anne, ID-14-PV2

Anne's analysis is clear; being constantly looked down upon as women, and specifically having your abilities undermined has the effect of reducing your self-confidence. Freire (1970: 95) calls this internalisation of the projected diminution '*the oppressor within*'.

I think that women most of the time, since they are undermined, they are afraid of failure, so if we can only stop being afraid and try – because sometimes you are afraid even before you try. You think that maybe you'll fail.

Angela, ID-27-PV3

As Angela points out, in many cases, as a result of being repeatedly undermined, people can come to doubt themselves and stop trying for fear of failure. Again the cumulative effect of being negated and undermined is a reduction in self-efficacy, a reduction in a person's ability to realise their agency-goals and to live the life that they most value.

This research lends weight to the contention that narratives inscribing technology as a male domain, in which women will be unsuccessful, contribute to the production of a self-fulfilling prophecy of female under-achievement. Findings from social and educational psychology confirm that our sense of self-efficacy (our self-belief in our ability to accomplish agency goals) is a powerful determinant of actual accomplishment (Bandura, 1995). People with high personal efficacy beliefs are consistently more likely to try new things, to take risks, and to succeed; conversely people with low self-efficacy are less likely to venture and to succeed (ibid).

A self-fulfilling prophecy, I argue, is a form of false consciousness. Merton (1948: 477)

defines a self-fulfilling prophecy as occurring '*when a perceiver's false belief influences the perceiver's treatment of a target, which in turn, shapes the target's behaviour in an expectancy-consistent manner*'. In our example, the result of the lifelong subjection of women to subordinating messages and acts of discrimination is that this projected diminution is internalised by women, adapting their sense of self- efficacy and therefore their ability to achieve representation and accomplishment in Zambia's ICT sector. This kind of self-fulfilling prophecy, like 'false consciousness', 'adaptive preferences' and Bourdieu's (2001) 'misrecognition', I would argue, are all subjective internalisations of structures, pervasive narratives and material circumstances, that effectively constrain our freedom and ability to lead lives that we have reason to value.

In the previous four sections I have reviewed evidence that Zambian women's representation in the emerging ICT sector has been effectively depressed by gendered constraints on space, time, voice and self-efficacy. The preferences of Zambian women to pursue a career in technology have been adapted by dominant narratives that socially construct information and communication technology as a male preserve. The following sections assess the role of Asikana Network and participatory video in addressing this gender discrimination.

6.2 Asikana Network Activities: conformist practices

The preceding sections have elaborated some of the ways in which people in Zambia have acted to adapt women's preferences away from studying or seeking employment in the ICT sector. Viewed through the lens of Amartya Sen's capability approach, this has the effect of

adapting preferences towards that which might realistically be expected to be attainable. One effect of this social conditioning has been to reduce female participation in technical education and in the technology workforce. Asikana Network however has the explicit objective of increasing women's participation in technology, and so it might be argued, is in the business of adapting women's preferences in favour of ICT.

Asikana is a network of women who, having encountered gender discrimination in Zambia's ICT sector, formed a support structure for similarly affected young women. During the research period Asikana Network activities focused on the following areas:

1. basic computer skills – classes teaching common office software applications
2. web development – classes teaching how to build websites
3. mobile development – classes teaching how to build apps for mobile phones
4. mentoring – by women already in the ICT sector
5. meet-up events – networking with other members

In this respect many of the activities of Asikana Network can be considered as responding to members' immediate needs or what Molyneux (1985: 233) calls '*practical gender interests*'. The aims and objectives of the organisation, and the programme of training and mentoring activities that flow from them, respond directly to member's immediate practical interests including seeking employment, skills development. and securing support from a community of shared interest.

The meeting with mentors was useful because what I learnt from them was that [...] no matter what people say to discourage you, if you have

the inner inspiration, you can do it.

Anne, ID-14-PV2

I think one of the things that is being done here at Asikana, is getting all these women together and sharing each other's problems [...] see how we can move forward from here, encourage each other, that's one of the major things.

Phylis, ID-26-PV2

Anne describes finding the mentoring support provided by Asikana mentors useful in combating the discouragement that women routinely experience when their actions challenge gender stereotypes. Meeting women who have overcome discrimination and achieved success in the field of ICT provides valuable role models and network contacts for Asikana members. Phylis also valued the encouragement that she derived from 'sharing each others problems', and the encouragement and support that she gained being a member of a collective of shared interest. It was evident that mentoring was an activity that Asikana member's had reason to value. This is not inconsistent with saying that, in and of itself, it can be considered a conformist activity, as it was not intent on reforming unequal gender relations or transforming power structures. It is possible to imagine other circumstances in which mentoring could be a central component of a reformist strategy, but my empirical understanding of its specific application in Asikana was as part of learning to cope with existing unequal gender relationships, rather than to reform or transform them. One of Asikana's members was very clear that Asikana was not a feminist organisation and that it wanted to be seen as a technology and innovation organisation rather than as a women's

organisation⁷⁸.

Members also had good reason to value the technical skills training provided by Asikana Network.

I enjoyed most the web development and mobile app training because honestly I have always wanted to know the mechanics behind a web page. I've also enjoyed the fact that Asikana starts from basic training so that you can know how to operate a computer and from there you progress to something higher.

Hannah, ID-17-PV2 in FGI

The HTML and mobile development classes is something that I didn't think I would learn [...] what I appreciate most is the basics [...] if you don't have the basics you will definitely face challenges.

Susan, ID-29-PV3

In the first focus group Hannah and Susan made similar points, about how they valued the web and mobile development training classes, and how they valued the basic building blocks approach used by Asikana. By providing early and repeated opportunities for 'mastery experiences' (Bandura, 1995) the iterative process of learning coding can be a powerful way to build learners' self-efficacy.

⁷⁸ It is possible that this positioning was in part to reassure me as an external male, whose position on gender rights she did not know. The term feminist is largely pejorative in Zambia. The same research participant, when asked, described feminists as 'bra-burning lesbians'.

Most Asikana Network activities directly target the objective of increasing the numbers of women employed in the ICT sector in Zambia. They also provide practical support and solidarity to those already employed in the sector through networking 'meet-ups', and facilitate mentoring relationships between the latter group to the former. During the research period, Asikana also organised a range of training courses in basic computing, programming for building websites and mobile applications (apps) and games, as well as networking events and mentoring sessions.

In terms of the conformist, reformist, transformist categorisation that Buskens (2014) developed for evaluating gender awareness, these vocational training elements of Asikana activities best fit the conformist category. Buskens describes conformist activities as those that make women better able to respond to or cope with the practical demands of existing unequal gender relations, without being intent on tackling the socio-economic, political and religious structures that give rise to and support those unequal relations. I am not claiming here that all Asikana activities are conformist according to this categorisation. I am only suggesting that their vocational training and mentoring activities meet this definition⁷⁹. In the next two chapters I will deal separately with other Asikana activities that can be considered to be reformist or transformist. First I will consider Asikana's use of participatory video.

⁷⁹ My research did not interrogate the detail of Asikana's specific mentoring practice so in determining their intent I rely on their strategic plan and on the statements of Asikana leaders in this regard.



Figure 16. In Front of the Camera (photo credit: author)

6.3 Conformist Participatory Video

In section 6.1 of this chapter I presented and analysed research findings about the various ways in which gender constraints on women's space, time, voice and self-efficacy limit women's freedom and agency to pursue their preference to work in Zambia's ICT sector. In section 6.2 I examined some of Asikana's other activities designed to address this gender (dis)advantage. In this section I analyse their use of participatory video and assess its affordance for enhancing members' self-efficacy, communication skills, and technical competences in videography and film editing. Research participants reported valuing their experience of participatory video in a range of ways.

[The thing I most valued was] being in front of the camera and getting to talk about the issues that we talked about openly, it got me thinking and helped me to build my self-confidence.

Hannah, ID-17-PV2

Hannah valued her new freedom to talk openly about issues that constrain the lives of women in Zambia. Breaking the silence about these issues, got Hannah thinking, produced new knowledge within the group, and built participants self-confidence. Hannah was one of the youngest participants⁸⁰ but developed her skills and confidence quickly, graduating to educate other young women in the position of co-facilitator of subsequent participatory video workshops, initially alongside me, and later independently in my absence⁸¹. The group discussions about gender (dis)advantage created new opportunities for participants to openly voice their opinions, and to name the problems that they faced, and in so doing to produce new knowledge about their situation. In the process of learning, participants moved from relatively passive object positions to relatively proactive subject positions. This connects to findings from the existing literature; Chris High's (2005) research found participatory video to have an affordance for social learning, and Su Braden (1998) found participatory video helped focus group discussion and deliberation.

⁸⁰ I estimate Hannah to have been 18 years-old at the beginning of the research period. Demographic data about research participants was not systematically collected for a range of reasons. When I piloted the questions one of the research participants declined to give her age without explanation. When a second research participant declined she exclaimed that in Zambia a man should not ask a woman her age. I decided to remove the demographic questions (a) in order to avoid causing offence (b) because a consideration of demographics was not central to the research questions (c) to allow for a more natural 'conversational' style.

⁸¹ Three women participants were 'graduated' to the role of co-facilitator and in two cases to independent facilitator. There was no problem with regard to their ability to teach the technical skills of filming and editing, and it was beneficial to have young Zambian women leading the workshops as role models. What I underestimated however was the challenge of training novices to be facilitators of critical dialogue, and to problematise the structural basis of gender inequity. I will revisit this issue in Chapter 8.

I loved the challenging part where you learn something you haven't done before and you get to do it better than you thought you'd do [...] I have learnt more about women, I have learnt more about videography and I have gained my confidence and motivation.

Lesley, ID-42-PV7

Lesley appreciated both learning new (traditionally male-gendered) practical skills in videography and deepening her knowledge about the situation of women in Zambia. In relation to the practical skills she points specifically to the confidence and motivation she gained by doing something, “*better than you thought you'd do it*”. This comment speaks to the affordance of participatory video for 'mastery experiences' (Bandura, 1995) especially. The short iterations of accomplishment afforded by a process design in which when participants are each able to film and edit several of their own films can act to positively condition participants sense of self-efficacy. This is especially important with oppressed groups whose self-esteem and self-confidence may have been negatively conditioned by persistent experience of discrimination and (dis)advantage. Bandura (1995) has shown how a person's sense of self-efficacy can actually be more significant in predicting levels of attainment than their actual levels of ability. Bandura (ibid) has also shown that experiencing incremental achievement of agency goals is key building the individual's sense of self-efficacy. Producing a sequence of short films of increasing complexity and sophistication is ideal for this purpose.

It felt very good. I felt impressed. I can actually make a video and play it or upload it to YouTube [...] I was able to edit an actual video for a certain organisation, so they actually trusted me to do it because I told

them I took part in a training for video editing.

Rosa, ID-16-PV2

After completing five days of participatory video workshops Rosa made a video about a project she was working on as part of her job for the international development agency, Plan International⁸². Pleased with the results, Plan International showed the video to stakeholders in 40 countries. Rosa gained new practical skills, an enhanced sense of self-efficacy and earned new status and recognition in the eyes of her employer. For other participants the derived benefits were more intrinsic.

I felt proud of myself, I felt 'Wow! I can do this. I can be in front of the camera', At first it was scary, but after some time in front of a camera made me more confident than I was before [...] just looking at myself in the video I was like 'Wow! I can do this; this is how active I am!'. So it gave me inner courage - [...] courage, and boosting of self-esteem.

My prompt: “Which of those is most important to you Mercy?”

I think the self-esteem one, because when you just walk out of there we act but we don't see ourself every time in the mirror. How we act, and how we can act. [...] then I can do better. If I can do this in a movie, then I think I have to improve my self-esteem and I shouldn't look down on myself. I can do much better than this, I think so.

Mercy, ID-13-PV2

⁸² The name of the actual agency is not used in order to preserve Mercy's anonymity.

Mercy describes her experience of participatory video as linked to an enhanced sense of agency, of what she could act to accomplish. She describes her own personal progression from being scared of the technology to being proud of her new accomplishment. What is clear from her description is the reflective affordance of video to provide a new perspective on the self (Shaw and Robertson, 1997). Mercy describes how the new perspective of, “*just looking at myself in the video*” over the course of an iterative filming and editing process gave her “*inner-courage*” and “*boosting of self-esteem*”. Whilst seeing and hearing oneself talking on-screen is often at first an uncomfortable experience, it also creates the opportunity of reflective insight about oneself that is afforded by few other means. Scholars including White (2003) have likened this affordance of video to psychoanalyst Jacques Lacan's (1949) mirror stage in producing new knowledge of the self. In the quote above Mercy uses the word mirror to describe the affordance of participatory video for reflexivity. Seeing oneself speaking knowledgeably on screen about issues of social importance may be especially powerful to individuals who were schooled to be silent and whose expectations were negatively adapted during socialisation. When asked which she most valued, her new practical skills as a videographer or her new self-esteem, Mercy most valued the latter, reaffirming her new-found self-efficacy by asserting, “*I can do much better than this. I think so*”. Other participants also articulated an enhanced sense of self-efficacy and attributed it to participatory video.

Most people have the mentality, like I did before I came here to Asikana Network, I actually thought 'only men can do the videography', IT issues, and not women'. So it's just been like that, that men are good at that, when yet even us women can do it, because I have just witnessed it

that even us females can do it.

Patience, ID-43-PV7

It has actually motivated me in a way that I would look at myself and say 'I can do what a man can do' ... I have learned from this workshop, I think nothing would prevent me now.

Susan, ID-29-PV3

Patience and Susan graphically describe how the participatory video experience changed their self-belief about what they could accomplish in relation to men. Patience speaks of having just witnessed that, “*even us females can do it*”; Susan speaks of using video in a reflective way to gain a new perspective, “*look at myself*”. Susan attributes to the participatory video process an enhanced sense of personal agency and self-efficacy, a conviction that she can do ‘*anything that a man can do*’. Given that research participants have been consistently discouraged by family, school and peers, it is significant that their engagement in a participatory video process afforded them such encouragement. However, although an enhanced sense of self-efficacy is a desired outcome of participatory video, we must also be critical about these statements. It is not literally true that Susan can ‘*do anything that a man can do*.’⁸³ A brief participatory video process has not negated the obduracy of structural power relations. Nevertheless self-efficacy, as a person's belief that they can accomplish tasks and goals, is something that individuals and collectivities have reason to value, as Bandura (1995) has comprehensively demonstrated. The attainment of videography skills also opened various other opportunities for some participants, as in the

⁸³ Nor do I imagine that Susan intended to make that literal claim. She may have been saying that she felt as if she could do anything a man could do – or that if sexist discrimination and obstacles did not exist she knew that she was capable of doing anything that a man could do.

case of Fortune.

I was happy and proud of everything that I did. I enjoyed it.

It has really made me have that bigger courage to really do something [...]

That video that we are taking to Ghana, that was like so an honour [...]

I didn't expect to [make] a video that maybe Africa would watch [...]

She went there to present Zambia and I did the video [...]

It made me feel proud.

Fortune, ID-35-PV5

Fortune was a young participant in the fifth participatory video workshop (PV5). At first very shy, Fortune became noticeably more vocal and confident during the process and distinguished⁸⁴ herself, in part as a function of the extra time that she spent honing her film-making skills. Fortune was a member of a three-person team that made a short film⁸⁵ about a Women's Rights App⁸⁶ that Asikana members designed and programmed for mobile phones. The video that they made was screened at an international conference in Ghana, which was a great source of pride for the production team. Fortune's team also produced the film, "Coming Out of the Kitchen"⁸⁷, which won her an award that included an internship at a professional media production company. The film voices, in the women's own words, the constraints that they experience in the technology sector and how they organise as Asikana Network to combat this. The participatory video process afforded these women the opportunity to voice and to better express themselves, and this was

⁸⁴ It would be problematic to judge women on the basis of the amount of time that they dedicate to participatory video when they experience gender constraints on their time and mobility. Here I use the word distinguished in its descriptive non-judgemental sense to indicate that Fortune was able to advance her skills in part as a function of her ability to dedicate additional time and persistence to the editing.

⁸⁵ Women's Rights App video viewable here: <https://www.youtube.com/watch?v=NqtEKztCVZQ>

⁸⁶ The wireframe of the mobile app is viewable here: <http://www.zamrize.org/wrapp/>

⁸⁷ Coming Out of the Kitchen film viewable here: <https://www.youtube.com/watch?v=ZD2d5dFR10w>

evidently something that they valued about the process.

It felt good to be able to express how I feel and hopefully to be able to help people, because ... I'm hoping that me being able to speak like that is going to help quite a number of people.

Penny, ID-05-PV1M

Being part of the video editing class taught me how to express myself, how to speak out [...] that's the difference it made in my life. I usually don't express my views about anything, I usually just keep quiet, but then when we did our interviews with each other during the video editing classes, I learnt to talk and to speak out, and to speak my mind, so it was good for me.

Phylis, ID-26-PV3

The process of being able to speak out seems to have been cathartic for some. Penny explains how it felt good to express her feelings and Phylis, who 'usually just kept quiet', felt that it was good for her to speak her mind for once. Phylis described her movement from relative silence to speaking out, and attributes the change to the participatory video process. Increased confidence in expressing themselves and felt relief at being able to 'speak out' on previously taboo subjects were reported by other research participants as valued outcomes, which they attributed most directly to their experience of interviewing women as part of the participatory video workshops and to the group dialogue processes.

This resonates with the findings of other scholars. In her work in KwaZulu-Natal, Shannon

Walsh (2012: 250) looking at issues of rape and incest in South Africa, also found that participatory video, “*seems to be able to unlock taboos and open up a space for discussion that is otherwise left silent*”. Louise Waite and Catherine Conn (2012: 88) have also spoken about the utility of participatory video in '*eliciting young women's voices*' for taboo subjects like sexual health around which silence often pervades.

6.4 Conclusion

I began this chapter by analysing evidence of gender discrimination and (dis)advantage experienced by Asikana members as constraints on their freedom to participate in Zambia's emerging ICT sector on equitable terms with men. Themes arising from data analysis were the severe constraints of gendered space, time, voice and sense of self-efficacy as described by research participants. This evidenced how women were actively discouraged from seeking to study subjects relevant to technical careers, and from seeking employment in the field of information and communication technologies. From the perspective of the capabilities approach, constraints on space, time, voice and self-efficacy can be viewed as examples of reasons why women's preferences were adapted away from pursuing technical education and employment in the ICT sector.

Asikana Network's activities, on the other hand, can be seen as organised efforts to adapt preferences in favour of women's unconstrained participation in Zambia's technology sector. The women of Asikana Network are exceptional in Zambia as an organisation dedicated to resisting the cultural prescription of the technology sector as a place of men, and organise diverse activities that are designed to increase the representation of women in ICT. This chapter examined Asikana's practical activities to enhance members' ICT skills, mentoring, and meet-up and networking events. This chapter also found participatory

video to have particular affordances for reflection, for social learning, and for the personal attributes of self-efficacy, communication and technical skills, which were the focus of research question SRQ1.2. Some Asikana members were able to develop significant new skills and competences that led to employment opportunities and other experience including internships, further education, or enhanced status with their current employers.

Table 8 locates the Asikana activities considered in this chapter in the Matrix of ICT4D Intent and Practices, which I proposed at the end of Chapter 3. All of the activities considered in this chapter appear in Table 8 in the conformist column as they meet Busken's (2014) definition of conformist activities, in that they enable individuals to better cope with the constraints of existing gender relations, but they do not target reform of existing unequal gender relations, or tackle the structural power interests that give rise to and support them. I have located Asikana's basic computer skills training and their web and mobile programming classes in the techno-centric category as they are technology-centred activities which aim at control in Habermas's sense. In the communication-centric category I have located mentoring of Asikana members by established ICT professionals, as well as Asikana meet-ups and networking events. These are communication-centred activities which aim at increasing entrants' understanding of how to get employment in the sector, as well as how to survive and prosper within the sector. I have placed participatory video in the human-centred row on the basis that it is a practice that starts from people's own lived experience of discrimination and injustice. I have located the uses of participatory video considered in this chapter (to enhance communication, self-efficacy

Intent/Practice	Conformist	Reformist	Transformist
<p>Techno-centric ICT4D</p> <p><i>human interest in Technical Control</i></p>	<p>Basic computer skills training</p> <p>programming courses</p>		
<p>Comms-centric ICT4D</p> <p><i>human interest in Practical Communication</i></p>	<p>Mentoring</p> <p>Meet-ups</p> <p>support network</p>		
<p>Human-centred ICT4D</p> <p><i>human interest in Emancipation from Domination</i></p>	<p>participatory video technical + communication skills</p>		

Table 8. Asikana Conformist Activities (source: author)

and technical skills) in the conformist columns on the basis that, alone, these competencies do not tackle unequal gender relations or the power relations that (re)produce them.

Although, when they are considered in isolation, the activities considered in this chapter can be considered to be conformist, if considered as an integral part of a wider programme with transformist intent, these same capacities could be considered to be the building blocks and preconditions of action intent on overcoming male-domination, and as such be considered to have 'transformatory potential' (Young 1993). For this reason it will be informative in Chapter 8 to compare the 'voice' and 'reflection' discussed here with the 'critical voice' and 'critical reflection' that Asikana members also developed.

When thinking through the overall balance of Asikana activities, across the 3 chapters, it will be possible to question the extent to which it emphasises women's practical gender interests (skills and vocational training) at the expense of their strategic gender interests (Molyneux, 1985). From this perspective, even if every one of Asikana's members were able to gain employment in the technology sector, women's strategic gender interests might remain unfulfilled⁸⁸.

From the perspective of critical theories it can be argued that the constraints that Asikana members experience are rooted in the unequal division of labour, and patriarchal control over its definition and (re)production. From this perspective unequal gender relations are symptomatic of a deeper structural problem which need to be addressed if male-

⁸⁸ It will be recalled from Chapter 2 that Molyneux (1985; 233) defined strategic gender interests as including ending male violence and control over women, alleviation of the burden of domestic labour and childcare, the removal of institutionalised forms of discrimination, the attainment of political equality, the establishment of freedom of choice over childbearing, and the abolition of the sexual division of labour.

domination is to be overcome, and women's strategic gender interests secured. However, as discussed in Chapter 2, Molyneux's (1985) division of practical and strategic gender interests has been criticised. In the case of Asikana it is possible to argue, for example, that increasing women's skills and representation in the workforce can play a constitutive role in challenging workplace gender relationships and the gender division of labour, and that by creating women wage-earners the power that men have over women is challenged⁸⁹.

I find Molyneux (1985) and Buskens' (2014) categories to be conceptually and theoretically useful, and do not find their value to be diminished by admission that in practice the categories are porous and interconnected. Such categorisations of social reality, are conceptual abstractions of what, on close inspection, is a significantly more complex social reality. However the reality that such categories can usefully be deconstructed does not render them devoid of explanatory or theoretical value. I want to end this chapter with the words of one of Asikana Network's co-founders:

Sometimes I wonder if what we're doing at Asikana network is actually making a difference. Because we will do something to teach people to do with mobile app development, I will go home and I will see my neighbour coming to me crying saying my husband says I can't go to school and yet I've been asking him for two years, for five years. So mostly [the situation] just makes me feel inadequate and it makes me question 'is what I am doing making any difference with women in Zambia?'

Beauty, ID-23-ANF

I interpret these reflections of Beauty as revealing her cognitive dissonance at the

⁸⁹ Although see also the argument by Moser (1993) and others that women becoming wage earners whilst still being held responsible for domestic work creates a 'double burden'.

disconnect between the constraints on women's freedoms, and Asikana's existing programme of activities. Whilst the provision of practical vocational skills training to individuals is something that, in Amartya Sen's (1999) terms, Asikana members certainly 'have reason to value', this is not inconsistent with saying that it does not, *in itself*, tackle the power interests that determine women's unfreedoms. In other words, the provision of training and mentoring is necessary but, by itself, insufficient for the task of overcoming unequal gender relations. I will return to these themes in the following chapters.

Chapter 7. Reformist Practices: tackling unequal gender relations

In this chapter I will do four things. Firstly, I analyse some of the social mechanisms that research participants identified as the institutional means by which Zambian women are discouraged from pursuing careers in ICT. Secondly, I will examine what research participants considered to be the cultural and ideological causes of those constraints. Thirdly I will review activities undertaken by Asikana Network that are intent upon reforming unequal gender relations, before finally analysing whether participatory video enhanced actors' agency for development in this regard.

7.1 Mechanisms of Constraint

In the previous chapter I analysed some of the constraints experienced by Zambian women wishing to pursue a career in technology. The following sections will look at some of the institutional mechanisms that research participants identified as the practical means by which Zambian society reproduces this gender (dis)advantage. The six headings that subdivide sections 7.1 and 7.2 arose as themes during open coding in the data analysis phase of the research process.

In Section 5.5.1 I analysed the role played by marriage and puberty rituals in socialising Zambian women to perform prescribed versions of femininity. Here I will consider a range of other social institutions that research participants identified as the means by which Zambians inculcate and internalise the dispositions and expectations of gender roles and behaviours (Bourdieu, 1984, 2001).

Participatory workshops and film-making were used to create a space for critical dialogue

in which research participants collectively identified a variety of institutional mechanisms through which women participants were discouraged from pursuing their preferences to play a role in Zambia's ICT sector. Figure 17. illustrates findings from Focus Group 1. The mechanisms that emerged most strongly from open coding the data were family, school, religion and workplace. They are analysed in the next four sections.

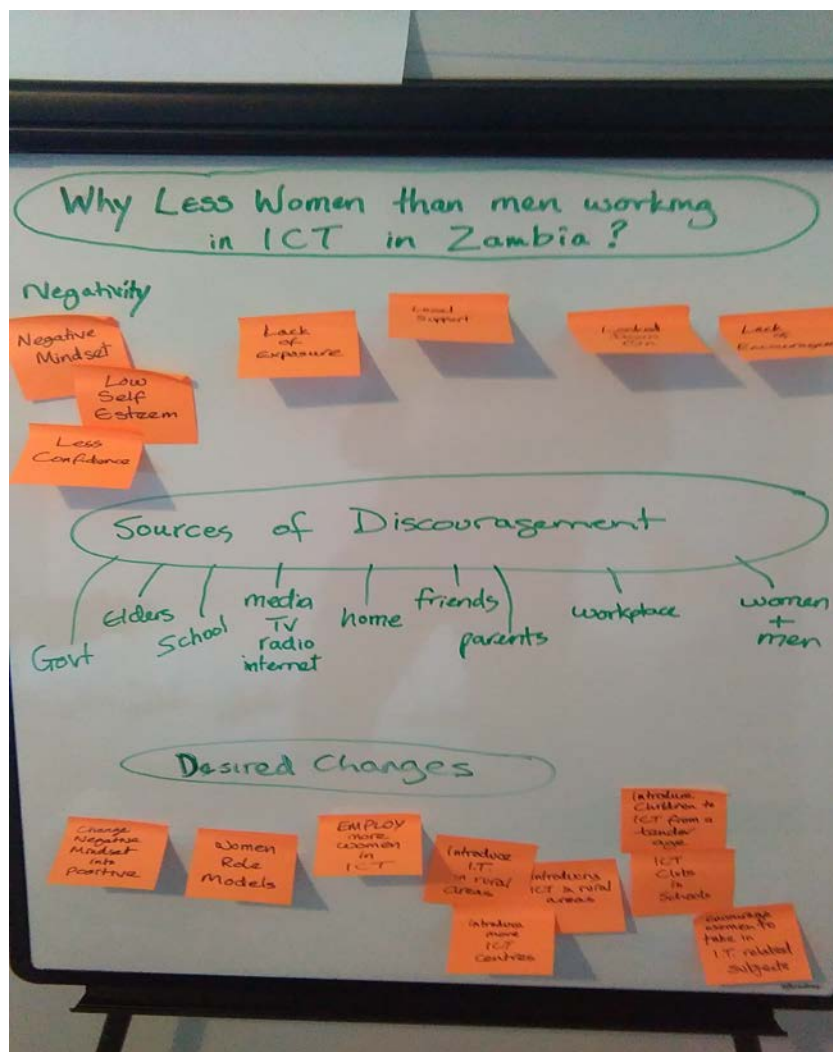


Figure 17. Institutions of Discouragement: Focus Group One

7.1.1 Family

Research participants identified the family as a significant institution in the socialising of Zambian girls and boys into prescribed gendered roles. Constance was a young participant with a brother who was exempt from household chores.

Being in the kitchen is just not for men ... [Chores] around in the house usually is for women. He's not being asked to do anything because he is a guy, and I have to do everything. Really makes me feel bad [...] I feel like I'm being abused or something like that, but then [...] you've grown up like that, being told that, you'll find yourself accepting the situation because it's expected of you.

Constance, ID-15-PV2

Constance's experience illustrates how gender norms and stereotypes are often impressed upon girls by their own family members expecting them to conform to an unequal division of domestic labour. She speaks of the cognitive and embodied dissonance of knowing the injustice of her situation and feeling abused and yet, under family pressure to conform to socially constructed gender roles, she resigns herself, and internalises her given role.

When you are saying that you want to do I.T. your mother and father will be like 'Oh God! You should be doing something else', and they will literally discourage you.

Phylis, ID-26-PV2

Like Constance, the family of Phylis sought to adapt her preference away from subjects which have been socially constructed as masculine by undermining her sense of self-determination. These examples illustrate how the social institution of the family can act as an institutional mechanism to (re)produce gender inequality (Chodorow, 1978; Okin, 1989). A large body of research has shown how the socially constructed belief that girls are inherently inferior in technical fields can affect girls' beliefs about their own ability, negatively affect their performance, and narrow their employment choices (Eccles, 1994; Riegle-Crumb, 2012). Whilst, in interviews and focus groups, most research respondents reported low self-efficacy as causal in the under-representation of women in the technology sector, several participants had a strong personal sense of self-efficacy.

I know what I'm capable of doing, I won't let anyone discourage me from doing certain things because I know the power that I have within me to do certain things [...] It comes from the upbringing, like for my parents, I think on separate occasions they told me I should not fear, I should have courage [...] I think it's in the family. I have an older sister whom I think I look up to, [...] She's never let anyone weigh her down, she's managed to get all the way to the top.

Faith – ID 34 – PV5

The small minority of Asikana Network members who, like Faith, had already gained employment in the ICT sector, cited being able to rely on family support and encouragement as key in sustaining their sense of self-efficacy and agency. Whilst data on class was not systematically captured during the research process, through repeated interaction with Faith over two years I learned details of her background and know that her

parents went to college and that she comes from a middle-class family. In Faith's socialisation her family rejected some gender conventions and actively encouraged the aspirations of Faith and her sister to succeed in 'male' domains. These findings echo research from other countries, including Abagi's (2009) study of Kenyan women in senior ICT roles, which found that these successful women benefited importantly from the active encouragement and financial support of their largely liberal-minded and middle-class parents. The relevance of this intersection of class and gender, significant in determining a girl's freedom and ability to pursue her aspirations, is a promising area for further research. As Riegler-Crumb (2012) concluded about her research into women's disinclination to pursue STEM majors in the USA, women's preferences in this regard appear to be shaped by pervasive structures that reproduce cultural norms about what girls do and what boys do. Further research is needed to better understand *why* and *how* some women resist this cultural pressure and escape the constraints on their freedom to pursue technology careers.

7.1.2 School

When it comes to school, there are certain subjects, we say 'this subject is for guys, they'll do well in this, they'll do better than a lady would do', which I don't think is the case.

Faith, ID-34-PV5

A lot of guys in class, they would discourage you and say this is not for girls, you have to do nursing or something like teaching.

As the quotes from research participants Faith and Mercy evidence, school teachers and student peers also play a significant part in (re)producing unequal gender relationships.

They show how dominant narratives are repeated in ways that sustain myths of gender aptitude for particular subjects that discourage women from pursuing STEM subjects. Under-representation and stereotyping of women, particularly in maths, science and engineering education, has also been documented in research on Kenyan women in ICTs (Abagi, 2009; KNEC, 2014). Marra *et al* (2009) have separately shown how women and minority ethnic group students suffer from reduced self-efficacy as a result of their experience in male dominated fields.

In college the course that I did [Computer Systems Engineering] was more encouraged on the male side ... 42 guys and 6 females.

It was a technical job that I got. [...] I had to fight to be in that position.

First of all they had this thing that because you wear skirts you can't do this. [...]

Men will belittle women [...] especially the technical jobs of course, they think it's meant for men and that women are not supposed to do such jobs. [...] We're also discouraged by women in the industry because they say you'll find it hard to fit in.

Phylis, ID-26-PV2

It was the experience of Phylis that at the college that she attended there was more encouragement for males to study computer systems engineering than for females, to the extent that she had fight for her position and, despite her academic success, she reported that she continued to be belittled by men, and discouraged by women. These findings are supported by research from other countries. In neighbouring Zimbabwe Buhle Mbambo-Thata, Elizabeth Mlambo and Precious Mwatsiya (2009) found that the social construction of unequal gender roles disadvantaged both women technology students and

staff at the University of Zimbabwe. In Kenya, Salome Omamo's (2009) research traces gender stereotyping back to the school playground and to gender discrimination by employers, factors substantiated in research in many other countries (Busch, 2009; AAUW, 2000; UNWomen, 2013). That schools and colleges act to institutionalise gender disadvantage must be of particular concern to policy makers in education and development, fields which consistently prescribe expansion of educational access to girls and women as instrumental means to achieving gender equity.

7.1.3 Religion

In a country where according to the 2010 census, 87% of the population identify themselves as Christian, the divine authority of God lends substantial weight to an already pervasive public pedagogy of women's subservient status. Research participants described how their subservient role and domestic workload was God-given.

They say in the bible, God says the man is the head of the house,

Faith, ID-34PV5

Faith was one of several research participants who point to biblical texts as authorising a gender hierarchy in the home in which 'man is the head of the house' and (below) woman's role is domestic labour.

In the bible, it says that a woman is supposed to be doing something, they're not just supposed to sit around, no. In the book of Proverbs: 31 it shows how a woman should be taking care of the family, the husband and everything.

Susan, ID-29PV3

Susan was taught in church that 'a woman's work is never done' with reference to Proverbs: 31⁹⁰, a biblical text which contains a list of women's domestic responsibilities so extensive that it requires her both to "*rise whilst it is yet night*" and to continue working until after dusk: "*her candle goeth not out by night*". Susan was also taught, with reference to Timothy 2:11⁹¹ that, "A women should learn quietness and full submission", which adds further weight to the gender constraints on women's voice already discussed in Section 6.1.3. This religious authority for unequal domestic responsibilities is also contributory to the issue of women's 'time poverty' relative to men, discussed in Section 6.1.2 (Wajcman, 2008, 2015; Bardasi, 2009; Bardasi and Wodon, 2000).

When you go to church, that's where things start ... they would give this respect to the man, because he's the head of the house ... as women they are just given, maybe two or one Sunday each year to stand in front and say what they want ... The rest of the time it's men chairing, leading, you know, everything.

Freida, ID-37PV6M

Freida describes how her experience of patriarchal structure within her church underpinned her experience of unequal gender relationships: '*that's where things start*'. The institutionalised teaching of a divinely-ordained male dominance by Zambia's largely male priesthood serves as a powerful mechanism for sustaining unequal gender roles. Kleine (2013: 60) has argued that, "*spiritual beliefs stand in a complex relationship*" with

⁹⁰ <https://www.biblegateway.com/passage/?search=Proverbs+31%3A10-31&version=KJV>

⁹¹ <https://www.biblegateway.com/passage/?search=1+Timothy+2:11-12>

the psychological resources that are constituents of agency. Whilst people's religious beliefs may inspire compassion for the disadvantaged and commitment to change, the testimony of Faith and Freida illustrates how Christianity can also be used to (re)produce and 'justify' gender hierarchies that constrain women's freedoms. Whilst in some regards religious adherents may experience their devotional beliefs as a psychological resource that helps them to resist gender inequalities, it may also be experienced as part of the structural basis that serves to institutionalise unequal gender relations.

If you try to be all 'we're equal, women's rights', people accuse you of being a feminist and being Westernised, and they tell you that you're being un-Zambian. [...] So it's that general mentality that [...] if you are fighting you are being unwomanly, un-Zambian and un-Godly, and once the un-Godly factor is brought in it makes a lot of women not want to fight for it and to just back off completely.

i

Alice ID-25NPV

From Alice's personal experience women who resist male-domination in Zambia can expect to be accused of being '*unwomanly, un-Zambian and unGodly*'. These are powerful pejoratives that are designed to attack an individual's existential sense of themselves. By attacking these core pillars of a person's identity, women who resist oppression are subjected to symbolic violence⁹² (Bourdieu, 1991; Zizek, 2008). Alice was told implicitly that to be a woman, to be a Zambian or to be a Christian, she must submit to male authority. The outcome of this verbal attack, in Alice's interpretation, was to force women

⁹² I use the term symbolic violence here to refer to the non-physical form of violence inflicted through the use of language by powerful groups (here men/patriarchy) as instruments of domination.

to desist from resisting male domination. Of the three threats, in Zambia religion is the most potent means to enforce submission: *'once the un-Godly factor is brought in it makes women not want to fight'*.

7.1.4 Workplace

In participatory workshops, focus groups, and interviews, research participants discussed how, even if they prevailed over gender discrimination at home and in school, they could expect to encounter further disadvantage in Zambia's ICT workplace. Women employed in ICT roles were disproportionately tasked with team support tasks, such as administration and tea-making, that analogue 'playing mother' to their male counterparts, sexual harassment, or were otherwise singled out.

The [technology] field is male-dominated.

When you go for an interview you already feel that 'I'm the odd one out'.

Everyone is male'.

Constance ID-15-PV2 in FG1

It's a general mindset that people have [...] The person employing you has to think that you have to climb a mast sometimes. Sometimes you have to fix a satellite and you come in with your skirt and the man is thinking [...] I can't send her up there because she's a woman' or because she distracts people from jobs or because she doesn't know what she's doing. So I think most employers don't believe she can do what she says on paper.

Mercy, ID-14-PV2 in FG1

Constance and Mercy describe the alienation and disadvantage experienced by some women who are early-entrants into Zambia's information and communications technology sector. Male and female research participants concurred that most technology positions in Zambia are occupied by men, especially senior roles. As a result new entrants like Constance often experience the technology workplace and interview situation as alien and hostile. All social institutions and relationships have their own specific form of gender inequality (Buskens, 2015) and Zambia's technology sector is currently male-dominated. Mercy describes the '*general mindset*' that women '*don't belong*' up ladders fixing satellite dishes or in technical roles; a perception repeatedly confirmed by both male and female interviewees. Men seek to defend the existing gender division of labour, which serves their own gender interests, through a range of spurious tactics such as sexist dress codes or essentialising as male the task of climbing a ladder to fix a satellite on a mast. Securing employment or promotion is usually determined by male decision-makers and this position of power is sometimes abused.

If you are a girl then you either sleep with [the employer] or get out.

It happens most of the time, most of the time, because I am the victim of that.

You go to the job interview and after the interview [he] says

so what are you doing after this [...] you are going to lunch with the boss

and you know what happens after that.

Susan, ID-29-PV3

Sometimes you know you have no way to get employment without being

sexually abused or harassed. And maybe you don't have choices

because you have financial problems at home.

Cathy, ID-3-PV3

Susan and Cathy had the courage to disclose personal experience of male employers attempting to use their power to force them to have sex with them; other research participants shared similar examples in the third person. Research by Zandonda (2010) found that 69% of Zambian women reported experiencing sexual harassment⁹³ in the workplace.

As these examples illustrate, women who aspire to work in the male-dominated field of technology in Zambia experience gender discrimination and disadvantage mediated by a range of social institutions, including family, school, church, workplace, as well as during marriage initiation ceremonies. These institutions reflect and (re)produce an underlying culture and ideology of sexism, which can be seen in unequal gender norms and values. Girls and young women who have the courage to pursue preferences for study and employment in areas that have been gendered as male are systematically discouraged by actors that may include family, friends, teachers, co-workers, religious leaders and community elders as well as media professionals (Figure 17). These people perform the work of (re)producing gender stereotypes and adapting the preferences of women away from studying and working in the information and communication technology sector.

It is however important to note two things: this process is, in an important sense,

⁹³ To define sexual harassment Zandonda relies initially on the UN Convention on the Removal of All Discrimination Against Women and describes it broadly as any uninvited and unwelcome sexual advances, or verbal or physical attention, or request for sexual favours, before specifically identifying the type of workplace harassment in which a person with authority implicitly or explicitly suggests that submission to or rejection of such attention is a condition of, or will affect, employment decisions about the individual.

relational, and it is subject to change by human agents. The same institutional processes that in this chapter were seen to structure constraints on women's freedom are also the means of structuring opportunity for men. Men's practical interests are often advanced specifically by women's disadvantage, such as when women perform unpaid work preparing food and cleaning men's clothes and home. At the level of securing employment income, a Zambian man who wishes to pursue a career in technology is materially and psychologically advantaged if he is already considered to be more suited to technology work than 50%⁹⁴ of the population merely because he is male⁹⁵. From this perspective women's subordination is the structural basis of male privilege. I do not however conclude that this is a zero-sum game. I would argue that at the level of strategic gender interests (Molyneux, 1985) men share an interest in women's liberation, as a means to live in a world with less domination and violence, and where they can also enjoy sharing child care and activities socially constructed as feminine.

7.2 Causes of Constraints

In workshop activities, focus groups, and interviews, research participants were asked to progressively excavate the underlying causes of unequal gender relations in Zambia's ICT sector. Having identified constraints and institutional mechanisms that (re)produce gender inequality, participants were asked to excavate further and to identify what they considered to be underlying causes. This took the form of asking questions such as 'why do parent/elders/preachers say those things?', and 'how did things come to be this way?'. In

⁹⁴ Zambia's 2015 population is 49.854% male

<http://worldpopulationreview.com/countries/zambia-population/>

⁹⁵ This is not an attempt to over-simplify disadvantage as a simple binary. Gender intersects with dimensions including ethnicity and class to make comparing the advantage of some elite women with some male labourers complex. Nor do I intend to imply that advantage is zero-sum across a gender divide. I would argue that men have a strategic interest in women's liberation and in being free to live in a world free of domination and violence.

this process I continued to rely on Freire's *'problem-posing method'* (Figure 13). The objective was to engage participants in an incrementally more critical analysis of their subjective and material circumstances to progressively uncover the, often hidden, mechanisms by which inequality is sustained, and the causes of social injustice.

When research participants were asked *why*⁹⁶ women faced constraints entering the technology sector in Zambia, they often responded that they were discouraged from their preference for technology by family members, teachers, religious leaders and co-workers. When asked to consider *why* these people discouraged them, almost all research participants referred to 'culture' 'tradition' or 'custom'. Whilst these three terms have distinct definitions in some, though not all, academic literature (Boyer, 1990), during our conversations research participants used them interchangeably to refer to practices and dispositions inherited, more or less uncritically, from previous generations. I will conform to this use of the terms here under the single heading of culture.

7.2.1 Culture

In critical dialogue sessions I questioned participants as to *why* gender constraints exist, including the specific constraints examined in the previous chapter on place, time, voice and self-efficacy. When participants presented constraints on women's freedoms they were asked variations on the basic question: *'yes but why do you think that is?'* Each repetition of the *'but why is that?'* question aims to excavate successively deeper levels of insight and produce new collective knowledge about the root causes of unfreedoms.

⁹⁶ The problem-posing method seeks to problematise situations that are taken-for-granted, in part by repeatedly probing with 'why' questions to access deeper levels of understanding. In this regard the method has commonality with the 5-whys technique used in technical problem solving in the Japanese kaisen system of continuous improvement (Serrat, 2009). The 5-whys is a standard root cause-analysis technique that is designed to help work groups to identify and fix the root causes of problems rather than endlessly treating the symptoms. The 5-whys technique is sometime attributed to Sakichi Toyoda.

It's a cultural and traditional issue. People bring up their children the way that they were brought up. ... It's passed on from generation to generation that a man is supposed to be this way and a woman is supposed to be this way.

Focus Group 1: Alice ID-25ANF

You need to ask for consent from your husband. If they say no, you can't say the opposite, you just have to obey. I don't know, that's just culture, that's just the way it is.

Anne, ID-14-PV2

Anne's answer, “*that's just culture, that's just the way it is*”, acts as a potential road-block to critical analysis. Culture is offered in Anne's answer as an immutable 'given', requiring no further explanation or critique. Critical analysis requires that culture is deconstructed to understand what power interests determine it.

That's our culture. Women must do certain things and a man does certain things and you can't bring in other things.

Elizabeth, ID-32PV4 in FG2

[It goes back] to before we were born. It's just like an inherited culture. When you're born you find the culture. That culture has been there since those that were born a long time.

Anne, ID-14PV2 in FG2

To evade the road-block to further participatory analysis it was therefore necessary to problematise the concept of culture. I asked research participants whether they would bring up their daughters in the same way that their grandmothers had brought up their mothers. Participants identified changes that they would effect in childrearing, such as ensuring household chores were shared and girls' education valued, which enabled us to discuss concrete examples from their own lives, which demonstrated that culture is not an immutable 'given' but is always being actively (re)produced and is open to appropriation and change by human agency.

To investigate the concept further I suggested a film-making project called '*Three Generations of Zambian Women*', in which some groups chose to interview grandmothers, mothers and daughters about their experiences of issues such as initiation ceremonies, education and arranged marriage practices. Two such films were made, one in rural Macha⁹⁷ and one by Asikana members in Lusaka⁹⁸. The films identified changes, in each aspect of culture

⁹⁷ Macha 3 Generations Film <https://www.youtube.com/watch?v=nC7IU7dOIVE>

⁹⁸ Asikana 3 Generations Film <https://www.youtube.com/watch?v=GfqdneeWOz4>



Figure 18. Three Generations of Women in Macha (stills from film: source Asikana)

discussed, in each successive generation. In the Macha version of the 'Three Generations' film the grandmother reports that it was common practice during her adolescence for girls to be secluded for three months to undergo initiation at puberty. The mother interviewed in the same film objected that three months was too long and did not undergo initiation herself but had attended the initiation of other girls. The daughter interviewed in the film did not know of anyone her age who had been initiated at puberty. The critical dialogue that followed the screening of this film led to some modification of women's understanding of culture, and gender roles, as fixed and unchanging. Participants came to see gender roles as relatively fluid and changing incrementally as a result of women's agency over generations.

A film of the same title was also made by one of the Asikana participatory video groups. Although similar learning took place about women's agency to re-make culture, it is worth noting that gender practices differ over time and place. Differences existed between the



Figure 19: Three Generations of Women in Lusaka (stills from film: source Asikana)

practices in the distinctly Tonga culture of rural Macha, and the relatively cosmopolitan culture in the capital city of Lusaka where Asikana Network is based. Whilst initiation seclusion still occurs in the most rural villages, and elders continue to formally teach girls defence and relative silence, in Lusaka these practices are much less evident. Female initiation has been progressively morphed into a women-only *'kitchen party'*, (Mususa, 2014) in which the bride prepares for her new role by receiving gifts including kitchen utensils and household goods. In the Lusaka 'Three Generations' film the daughter interviewed was free to associate with boys, to marry whomsoever she wanted, and was expected to progress in education to college or university. These films provided rich material for subsequent group discussions as they illustrated diverse ways in which Zambian culture is constantly being re-made and actively revised by each new generation of Zambian women and men. This provoked insight in the critical dialogue sessions that required some participants to revise their understanding of culture as immutable and given. Instead of seeing themselves as passive objects determined by a given culture, they

realised their potential agency to affect culture⁹⁹. From this new perspective they perceived culture as something in flux, which is socially constructed, and which provided them with the possibility to use their agency to provide freedoms for their children they had not themselves enjoyed.

As a result of the workshop it's made me have confidence that, it has made me want to change the situation. Maybe if one day I have kids, or maybe a girl as a kid. I would want my child to be brought up in a different way, not in the way that my thinking is, or was before doing this workshop.

Irene ID-36-PV5

This coincides with the findings of other researchers about the ability of participatory media production to enhance participants' sense of their own agency (Kearney, 2006; Walsh, 2012). This should not be interpreted as a claim that participatory video disappears the determining effects of structure, only that it can be a means to perceive and better understand the mutually constitutive relationship between social structure and individual and group agency. I would argue that human beings are structurally determined in a multitude of ways, and to an extent that no individual can be free of, but these constraints are not immutable and, having been produced by individual and collective human agency, can be changed by the same means (Freire, 1970; Giddens, 1984). Horkheimer (1937: 207) expressed this well saying “*the existent division of labour and the class distinctions [are] a function which originates in human action and therefore is a possible object of planful decision and rational determination*”.

⁹⁹ This mutually constitutive relationship echoes Freire (1970) and Giddens' structuration theory (1984)

7.2.2 Mindset

In the vernacular English used by research participants the idea of a Zambian 'mindset' was commonly offered, as well as 'culture', as a cause of the constraints they experienced as women in male-dominated spaces in Zambia. I understand research participant's use of this word to refer to a shared way of thinking, inherited more or less uncritically from authoritative sources including family, school, church and media. I will use their term in this section before considering their use of mindset in relation to the academic concept of ideology.

It goes back to the rural area ... - even in urban areas - they're used to being in one setting and they believe that that is how it is everywhere ... they are not exposed and they don't have that mindset to think it's different in other places. People should be exposed ... I think that would help them change their mindset and change their rules, of saying 'women shouldn't do that'.

Elizabeth, ID-32 -PV5

Elizabeth and other research participants used the word 'mindset' to mean a set of ideas, beliefs, and expectations that shape behaviour. I understand Elizabeth's use of the word to show that she considers the pertaining 'mindset' in Zambia to be an obstacle to developments that she values, and that she thinks that a 'new mindset' might be more conducive to that desired change. This usage was common in our 'problem tree' workshops designed to uncover the root causes of the felt constraints on women's development.

The whiteboard data (below) illustrates a group discussion held during a participatory workshop with the 'PV4' cohort of Asikana members. The dialogue had begun by summarising the challenges that women faced. The discussion then turned to the causes,

that is, to why these constraints exist. Participants identified tradition, culture, and religion as formative of the set of ideas and beliefs that comprise the Zambian mindset. Interestingly, these women, some of whom were learning to code computers, used an ICT metaphor to explain the social construction of a gendered mindset.

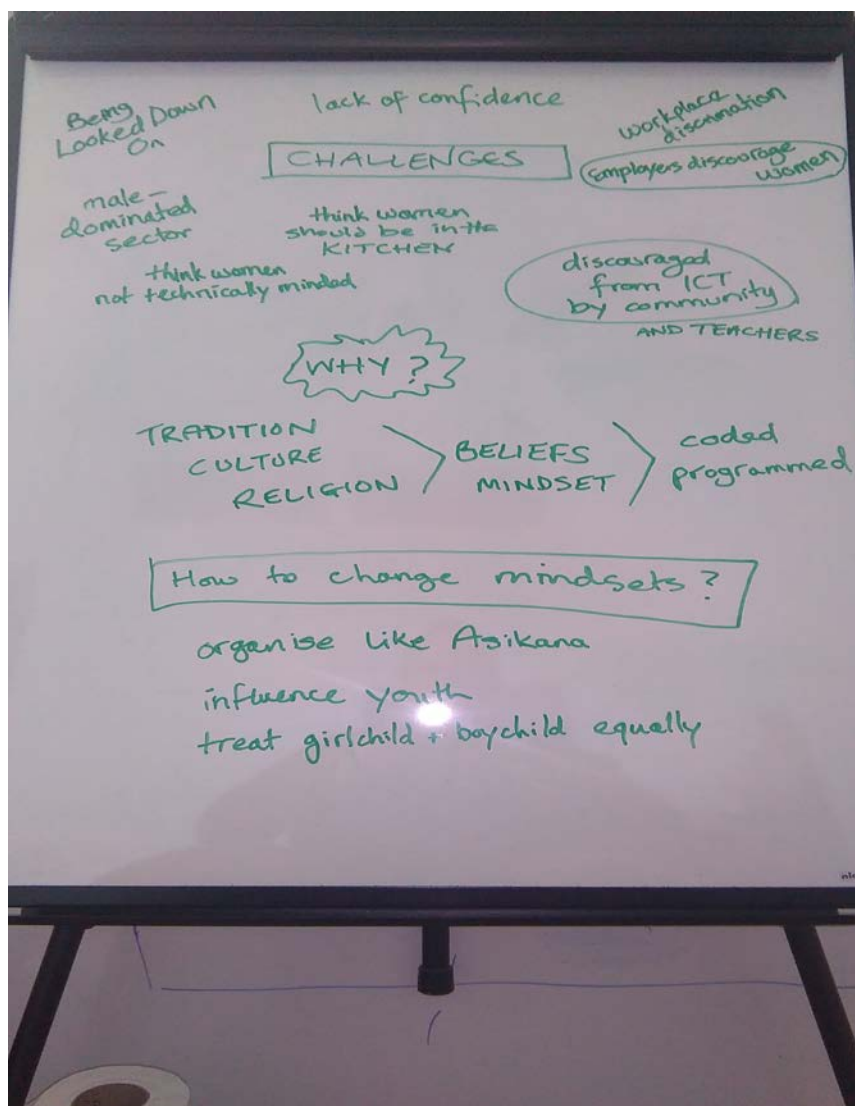


Figure 20. How Mindsets are Programmed, PV4 workshop

Research participants described Zambians as having been culturally “programmed” by tradition, culture and religion. Their notion of these ideas as “coded” into mindsets by

dominant social institutions is a powerful one, not least because it leaves the door open for human agency to hack that code to re-program mindsets. The participants suggested that organisations like Asikana Network could play a role in changing mindsets by “*organising women*”, “*influencing youth*” and advocating “*treat the girl-child and boy-child equally*”.

“The next problem for root cause we have:

'Women are reluctant to take up challenging careers'.

Why? Because of: 'Tradition, religion , culture and beliefs'.

And these beliefs go down to...?

'What they have always been taught as children'.

And that is...?

'The mindset that is in our society'.

Focus Group 3 participants

This quote is not a dialogue between two people, as it may appear, but rather a single voice presenting back to the whole group the explanatory logic identified by their small group discussion. The rhetorical style reflects their own thought process of critically questioning each of their own answers to excavate to successively deeper levels of analysis. As such it is evidence of elements of critical-agency including critical reflection and critical dialogue. Each small group had used Post-It notes to collectively produce a chain of causality to explain the root causes of the constraints experienced as women in ICT. Whilst groups differed in the specificity of their chains of causality; culture, mindset and traditions consistently featured as causes of women's under-representation in the technology sector in Zambia. Family, school and church were amongst the social institutions identified as means of transmitting these gender norms and values intergenerationally. Together,

mechanisms exert a prevailing influence that inculcates unequal gender relations.

Since the beginning of time, there's just kind of been roles based on your sex, a man goes out and hunts and a woman looks after the children, and I think as much as things have changed and people are pursuing new careers, it's still kind of in the back of everybody's minds, or ingrained in society, and some people just don't wanna take that chance of being the first girl to do whatever. *Eloise, ID-44-PV7*

The idea being expressed by Eloise is that, ingrained in Zambia's general mindset, fixed gender norms and roles have become so naturalised that it seems risky to take the chance of being the 'first' person not to conform. The idea that women can't do tech and that women's natural place is in the kitchen are elements of this 'mindset'.

Women should take an interest in acquiring technical knowledge and skills. Once this is done we can bring about a change of mindset since people will have been sensitised and educated. So people are going to change their mindsets from the traditional way of thinking ... Women will feel less inferior to men ... That will also bring about equal participation in IT by women and men. *Faith, ID-34-PV5*

From her comments I understand Faith to be arguing that, by acquiring technical knowledge and skills, and by becoming visible role models as women 'doing' technology, Asikana members can change perceptions and expectations. This 'theory of change' lies at the heart of Asikana's work and resonates both with Giddens (1984) idea of enacting new

structures of opportunity and with Judith Butler's (1990) idea of performing alternative gender roles in order to disrupt oppressive norms.

Mindset as a means of reproducing gender relations have an analogue in Althusser's (1971) work on the means of reproducing the unequal social relations of capitalism. Althusser showed how the 'ideological state apparatus', including the institutions of the family, school, religion, and media, combine to reproduce and sustain social relations that serve the interests of the dominant social class. By extension, the mechanisms of reproducing Zambia's unequal *gender* relations could be seen as the ideological apparatus of patriarchy, combining effectively to (re)produce and sustain the social relations of male domination. Rather than see an individual's adapted preference as a result of their individual circumstances, such an analysis presents causation as structural and systemic, effectively institutionalised within social mechanisms such as school and religion. As the Zambian scholar Sarah Longwe (1985: 1) has argued, '*discrimination against women in Zambia is not merely the result of ignorant behaviour by a minority of male-chauvinist men but is rather a pervasive pattern of behaviours practised by most men, accepted by women, institutionalised by society and established in law.*'

Moreover, the institutional reproduction of gender relations can be seen to intersect with, and to mutually reinforce, the reproduction of the social relations of imperialism¹⁰⁰, capitalism, and racism (hooks, 2000). Section 5.3.1 examined the historical context of British imperialism in Zambia, whilst section 7.1.3 looked at the role of religion in forming gender mindsets. Jane Parpart (1986: 11) provides examples of the work of

¹⁰⁰ I am using the term imperialism here to refer to the practice of extending the dominion of one country over another by force or by other means. British imperialism in Zambia is discussed in Chapter 5.

colonial missionary organisations in Zambia's Copperbelt region in the 1930s. There, Christian organisations taught women baby care and domestic skills alongside discussion groups with the explicit aims of, “*changing their norms and educating them to appreciate the necessity for health, hygiene, family discipline, and a rigid adherence to moral codes and the rewards to be had from honest endeavour and self-help, we will aid them in developing a new culture based on our ideology and concepts of Christianity and democracy*”. The imposition of foreign ideologies to support the process of wealth extraction, can be understood as an example of what Freire (1970) has referred to as the '*cultural invasion*' of a colonising mindset imposed on a subordinate population and subsequently internalised by the indigenous population as natural, immutable and, in this case, ordained by God.

Having examined the social institutions through which Zambian gender norms are transmitted and their relation to culture, the next section examines Asikana activities which counter these prescriptions and aim at reforming unequal gender relations.

7.3 Asikana Activities: reformist practices

Asikana Network's formation can itself be considered as a challenge to pervasive gender norms and values in Zambia. By means of their association, the members of Asikana implicitly refuse to accept culturally prescribed gender roles as housebound carers, nurses or primary school teachers. Asikana Network aims to grow an association of women who contest prescriptions on gendered education and employment in Zambia.

The previous chapter looked at some of Asikana's relatively inward-facing activities that are designed to provide vocational skills training and enhanced self-efficacy to its own

members. This section examines some of Asikana's more outward-facing activities designed to disrupt the reproduction of unequal gender relationships created by the mechanisms examined above. Given the conceptualisation by research participants (in section 7.2.2 above) of Asikana's work as a kind of 're-programming' of the dominant mindset about the role of women in technology, this work by Asikana to disrupt and reform gender stereotypes can be seen as a creative process of 'hacking the source code' of unequal gender relationships, in order to reform them.

7.3.1 School Outreach

Asikana members conduct outreach work in schools and colleges in order to demonstrate that ICT study and employment are options available to women, as well as to men, to provide role models of women in technology roles, and to raise awareness of the skills training provided by Asikana Network. Such outreach includes transporting computers to schools where Asikana members teach basic computing classes to girls and boys.

I became involved [in Asikana Network] for a very simple reason [...] this group tries to help women specifically, empower them, give them the skill and training that they need in ICTs.

Faith, ID-34PV5

We need to form women groups, go around villages and educate other women or girls about their rights and about education mostly because it's the key to everything.

Faith, ID-34PV5

The felt need to intervene at an early age in order to adapt gender perceptions about technology and to enhance technical skill levels amongst girls was a common motivation for Asikana members. Some, like Faith, were initially attracted in order to access ICT skills training for herself, but came to value outreach work to raise awareness amongst other women about their rights and education options. In the second focus group, participants suggested forming a, “*girl geek squad to go and fix computers in schools*” (Rosa, ID-16FG2) the logic being that it would provide work experience, provide a valuable technical service, and provide a visible demonstration effect in schools that women can be competent and successful computer hardware technicians. In focus groups, when asked what future activities they would like to see Asikana involved in, research participants valued primary school outreach to even younger girls, outreach to less privileged areas, and recommended adding discussion sessions alongside technical training as a further means to encourage girls' preference for ICTs.

*The [school] outreach, basically it's all about [seeing] women teaching ICT
[...] giving [girls] the courage. [...] I think it will give them the courage because if
I am young and teaching them who are so young, it will also be like that kind of
mentorship. [and the boys] they will maybe have that understanding that IT is not
just for guys it is for everybody.*

Fortune, ID-35PV5

In reflecting on the experience of women teaching technology, research participants such as Fortune drew on their own experience of learning from female teachers, both within the Asikana Network and from their own schooling, and described both subjective and cognitive benefits. Fortune saw women teaching girls computing as a means to increase

girls' courage and self-efficacy as well as a means to change mindsets about female competency in ICT. Research by Mbambo-Thata and Moyo (2014) in neighbouring Zimbabwe has shown how preconceptions about female competency in software engineering are determinate in girls' educational under-achievement and in women's under-representation in the software engineering workforce. In Britain, the determining effect of tutor pre-conceptions of gender, race, and class on student (under)attainment are well established in the literature (Gillborn and Mizra 2000).

Fortune's intuition that individuals gain courage by seeing people like themselves perform tasks is confirmed by Bandura's (1993, 1994, 1995) research on self-efficacy. Although, according to Bandura (1994: 2) repeatedly performing tasks oneself is the primary source of self-efficacy, a second productive source is through the vicarious activity of observing a person similar to oneself accomplishing tasks, an experience that Bandura found to measurably raise the observer's belief that they too can accomplish the modelled activities. This research finding lends weight to Asikana's core organisational tactic of providing in-house women-delivered ICT training and women-delivered school outreach programmes (as well as the practice, in this research, of training women from the first film-making workshop to co-facilitate and lead subsequent workshops).

These findings also resonate with comparative research including that in Sudan (Mubarak, 2014) which suggests that those women whose upbringing leaves them less encumbered by inequitable, gendered social norms and low self-efficacy can attain levels of ICT achievement equal to or in excess of their male counterparts, but that, "*women live and learn in gendered environments and they bring these environments with them as internalised perceptions of who they are and what they are capable of*" (ibid: 43). The

statement is equally true of men, who also live and learn in gendered environments from which they also draw their internalised perceptions of who and what they are capable of. The principal difference here is that whereas gendered environments generally serve as structures of *constraint* on women and girls, that diminish their sense of self-efficacy, personal power and ambition, the very same gendered environment generally serves to structure *opportunity* for men and boys, leading them to internalise perceptions of themselves as relatively efficacious, powerful and entitled. In conducting school outreach, Asikana members intend to adapt these male perceptions, as well as girls' and members' sense of ambition, self-efficacy and agency.

7.3.2 Asikana's Media Work

Participant researchers identified media representation as a further mechanism by which negative gender stereotypes are reproduced in Zambia, and as a key means by which Asikana can contest the social construction of unequal gender norms and values. During the research period Asikana was featured in a number of local and national radio programmes¹⁰¹, as well as securing national newspaper coverage¹⁰². Radio has the biggest audience of all media in Zambia, but Asikana also successfully used emerging social media and mobile phones to communicate its counter narratives. Most Asikana members originally heard about the organisation on Facebook and this is their primary means of letting members know about upcoming events and opportunities. When Asikana's Women's Right App (WRAPP) for mobile phones was selected by Facebook for inclusion in the launch of Internet.org¹⁰³ in Zambia this gained them global press coverage and means that WRAPP is available free to all Zambian cellphone users. The context for

¹⁰¹ Blog Talk Radio <http://www.blogtalkradio.com/zambiablogtalkradio/2012/03/17/voices-of-anakazi>

¹⁰² Women's Rights App coverage in Zambia Daily Mail <http://bit.ly/ZambiaDailyMail>

¹⁰³ <https://internet.org/press/introducing-the-internet-dot-org-app>

Asikana's successful media work is a male-dominated press.

In the Zambian press [...] women are under-represented. We have less female reporters than male, we have less stories talking about women, sometimes we don't even have a story talking about a women in the newspapers which is not supposed to be the case.

Faith, ID-34PV5

During one of the participatory video workshops, the discussion focused in on the role played by the media in (re)producing dominant gender stereotypes. One of the research participants, Faith, who had recently interned in a mainstream national newspaper, volunteered to conduct a systematic review of the gender content of four national newspapers, every day for one week. She found women under-represented relative to men against all her criteria: as journalists, quoted experts, as subjects of articles and as photo subjects. This is consistent with in-depth content analysis of the representation of women in the Zambian press conducted by Chimba (2005) which concluded that under-representation and negative coverage of women in the Zambian press contributes to their continued marginalisation in society.

If I had the resources I would increase the possibility of the media talking about these things, encouraging people to participate in the media, change the stories that are taught in homes, [...] then maybe the mindset would change. I don't know, but I think I would encourage the media to encourage the change, then it would come, then maybe the church would accept it .

Charity, ID-01-PV6M

Charity is a resident of Macha, where newspapers are not distributed for sale and where only a small minority have television. Charity argues the importance of media in “changing the stories that are taught in the home”, and which are formative of mindsets. In Macha, radio is the most pervasive ICT medium, with mobile phones and the internet now becoming significant sources of cultural formation. Charity's theory of change extends beyond using the media to adapt preferences in homes and includes the hope of influencing the church to change its teaching on the place of women. Charity is herself a devout Christian but was conflicted as she felt her church's position on gender contributed to forming mindsets that constrain women's freedom.

Changing a mindset is not very easy, but you can. [...]

*I think it would be great to encourage more programs on television,
and also just to create some sort of learning resource to target women
and also things about technology, to target women,
I think that would kind of bring a new thinking in women's minds .*

Simon, ID-45MMB

Simon was one of the young men interviewed by Asikana film-makers. Simon concurs with Charity and Faith in arguing that media could be positively influential in changing mindsets. That television is his chosen medium perhaps reflects his urban bias as someone brought up in the metropolis of Lusaka. Perhaps reflecting an androcentric bias, Simon sees changing women's minds (to be more like men's) as the solution, rather than changing the mindsets of both men and women with regard to unequal gender relations. Comprehensive analysis of the potential for media in development is beyond the scope of this thesis, however the existing literature does lend weight both to research participants'

argument that the media is influential in the formation of consciousness (Althusser, 1971; Ewen, 1976; Almy, 1984) including gender-identities in Zambia (Dahlbäck, 2003), and to the argument that media use has the potential to advance specific development ends (Melkote and Steeves, 2001). Such aspirations however must be tempered by the knowledge that patterns of traditional and digital media ownership reflect existing inequalities including class and gender (ibid). Despite these challenges, Asikana has secured significant local media coverage to raise the profile of its work and to air its message that women can succeed in ICT in Zambia.

7.3.3 Questioning Men

Once Asikana members had become proficient users of participatory video they did something that I had not expected or planned, and something that I had not come across in the literature on participatory video. They appropriated the technology and turned the cameras on men in order to challenge their preconceptions of women in technology. By interviewing men live on camera about why women are under-represented in technology in Zambia, women research participants were able to have a debate with men and to challenge preconceptions in a way, and at a level, that was not possible for them by other means.

This was not part of my original research design, in which I had imagined a process by which a women-only group of Asikana members reflected with other women upon their experience with regards to constraints on their freedoms in the field of technology. A distinct benefit of the research methodology of participatory action research and of the technology of participatory video is its interpretive flexibility and openness to appropriation by participants for purposes not preconceived by external facilitators. In this

case, research participants appropriated the process in order to question men about their prejudices towards women in technology. The desire of Asikana members to change male mindsets (Section 7.2.2) stimulated a deeper discussion within focus groups about how that might be achieved with men as well as women.

I think that we should speak to traditional leaders on those matters.

Maybe men, because it is mostly men who own ICT companies.

It would be nice to go and hear from them why they have got less

women and what they want to change, what they think be changed

Irene ID-36PV5 in FG3

This discussion informed participants' intent to question men about why they employ less women in their ICT companies, and to examine their preconceptions about why women were under-represented in Zambia's technology sector. As a result, the subsequent iteration of participatory action research and film-making turned the cameras on men as described in Section 7.3.3.

Once some participants had practised and felt proficient in the roles of camera person and interviewer in a women-only setting, they elected to turn their cameras, initially on men based at BongoHive but also later on other men in the wider technology industry. They asked men essentially the same questions that they had been asking women; why women were under-represented in the sector; why they thought that was, and what might be done to improve the situation. Subsequent to their being interviewed on film by women research participants, I conducted semi-structured interviews with the men interviewed on camera by Asikana women, using a slightly modified version of the original interview guide

(included as Appendix 3).

The men interviewed by the women research participants were predominantly members of BongoHive; that is to say that they were young male technology enthusiasts and entrepreneurs based at the BongoHive technology and innovation hub in Lusaka. The opinions of this particular group were felt to be significant by the women research participants of Asikana Network, in part, as the men aspired to form part of the next generation of employers in Zambia's emergent technology sector. Another group of filmmakers ventured further afield and interviewed male technology employers in Lusaka. Turning the cameras on the men had unexpected consequences for everyone involved.

Unlike the previous sections, where the quotes were all from women research participants, the quotes in this section are from my semi-structured interviews with men, unless otherwise indicated.

When I was trying to study IT, 8 years ago, there were no girls in my class, ... the adjacent class had two girls, two weeks later they weren't there, so I had this feeling in my mind that if I'm looking for someone who's gonna do anything in IT I'm looking for a guy"

Michael, ID-45-MMB

I think women do face obstacles, I have two friends that didn't get a job because they were not guys, and it's an IT position, network stuff, and they didn't get employed for it because they're girls and it's just assumed they are more into other things. You're going to get dirty, you're going to

break nails, it's not even for a valid reason, but they just face more problems than we do. Employers, yeah, possibly, employers don't treat them equally [...] I think it's just mindset. Maybe if she was being interviewed by a woman, she would have a chance, but with an all guy panel, no.

Boniface, ID-48-MMB

The men interviewed evidenced a range of knowledge and understanding about the situation of women entering the field of technology in Zambia. Although they had no first-hand experience of being discriminated against on the basis of their gender, several like Boniface above, were able to draw upon the reported experience of others, and to concur with the women research participants, that Zambian women face systematic discrimination in technology employment. This coincides with the evidence of Asikana women presented above, and is reflected in the Zambian Labour Force Surveys of 2008 and 2012 which show women to be under-represented in science, technology and engineering sectors (ZCSO, 2013). Some of the men interviewed echoed the importance of 'the Zambian mindset' in determining gendered norms.

I think it hasn't changed yet because the Zambian mindset is difficult to change. I mean people just think men and women should do certain things that they were made to do because of their gender.

Harold, ID-48-MMB in Asikana film: "Women and Technology in Zambia"¹⁰⁴

¹⁰⁴ Link to film "Women and Technology in Zambia" <http://www.youtube.com/watch?v=-YfhhNatVsU>

Harold's response to being asked, on camera by one of the Asikana women film-makers, "Why hasn't change already happened?", reveals his understanding that behaviour is attributable to held beliefs, and that 'the Zambian mindset' is durable and resistant to change. Although a preference for change is implicit in Harold's response, in common with other responses he presents mindset as a fixed and singular entity. Whilst research respondents make a compelling case that women are constrained by a singular, fixed, Zambian mindset it may be more accurate to imagine a range of contesting mindsets vying for prominence, with Asikana itself as one of the heterodox contestants. By extrapolation, we can imagine that there are multiple mutually-constitutive mindsets each being affected by the dominant mindset and in turn affecting it.

I think one of the things is that we have people who are not ready for change. Like there are old men in the industry and they don't like new people to come in to take over their positions ... change will only happen if people's mindsets change.

Antony, ID-50BNB in Asikana film: "Women and IT in Zambia"¹⁰⁵

As the above examples from Antony and Harold show, the belief that bringing about change in mindset is necessary to remove existing constraints is shared by several of the male members of BongoHive.

I have been interviewed, once. It did make me feel differently about the situation [...] because before that, I really thought women couldn't actually put up something that was really.. okay, I did feel different,

¹⁰⁵ Link to view film "Women and It in Zambia" <https://www.youtube.com/watch?v=qHr2Ec9KsZs>

because before I was interviewed, I really thought women couldn't actually do the video editing.

Luke, ID-49MMB

I was interviewed where I got to see what actually happened when they are interviewing, who does the capturing and who does the asking of questions, so at least [...] yeah, I now know that women are able to do what has long been perceived as a man's job.

Antony, ID-50MMB

Luke was honest enough to confess to being wrong in his estimation of women's ability - he didn't think that women could do video editing. Antony was likewise forced to modify his opinion due to the experience of seeing women performing 'what has long been perceived as a man's job'.

I would say they raised some really good questions in the interviews and I was like, I agreed, like even this one question, where they asked what can men do to support women, I actually thought about that [...] I think it's changed my mind.

Daniel, ID-51MMB

When they were interviewing me, the questions were mostly about how women are faring in technology here in Zambia, so it's something that I had to think about, like 'Oh, why is it like that?', so it really also woke

me up, like okay, it's serious, [...]it just helped you to understand why women are not faring well in ICT.

Jeremiah, ID-52MMB

Being subject to questions about why women were disadvantaged in technology was a new experience for the men interviewed and led to Daniel self-reporting that he had changed his mind. The problem-posing methodology used in the workshops meant that research participants seemed to have become accustomed to not settling for presented answers but probed with searching, “*but why is it like that?*”, questions that Jeremiah says, “*really woke him up*”. When Elijah was asked whether being interviewed had any effect on him he responded:

Yes it did. I felt more awareness of the gender situation, and that we've got to raise the equality levels between men and women [...] Everyone deserves a fair chance.

Elijah, ID-53MMB

If you look at most places where they do filming, it's usually a cameraman, not camerawoman, so [when I was interviewed by women] I was like, it intrigued me, I was like okay, if these people are able to do videos and do video editing and make videos, I believe that lots of women will be able to have the same potential to do the same thing, so it enlightened me..

Malcolm, ID-54MMB

Elijah reports that being questioned by the Asikana film-makers raised his awareness about gender issues and the need for improvement. Whilst for Elijah it appears to be the cognitive process that was most significant, for Malcolm the performative dimension had

the most impact; seeing women competently perform technical roles that had been socially constructed as male caused him to re-evaluate what he believed women were capable of.

I was able to see them really standing up for their rights [...].

I can see there's a change because they're speaking out [...]

I think it reminded us of the rights of women. What they are and maybe like these are the rights that you have been overlooking.

so they changed [our] perception [...] I was forced to go on the internet and look up some of the things that I don't know, some of the rights [...]

I was able to learn something¹⁰⁶.

Aaron, ID-55MMB

A critical reading of Aaron's interview requires some reflection on to what extent his responses are explained by 'social desirability' and the approval motive (Crowne and Marlowe, 1964). This creates a significant challenge in interpreting the data. On the one hand as a researcher, following Harre and Secord (1972: 84) I wish to treat respondents “as if they were human beings who were able to give an adequate account of their own thoughts and opinion” and, following Alasuutari (1998), I want to avoid editing out biases that are constitutive parts of human reality. On the other hand it can reasonably be expected that BongoHive men, like other individuals, may wish to provide the socially or politically 'correct' answers. There is a sense in which this may not matter for the purposes of this research. It is also reasonable to expect that as public opinion changes over time from defending unequal gender relations to supporting equal gender relations there is an interim stage in which the approval motive (Crowne and Marlowe, 1964) means that levels

¹⁰⁶ Aaron had seen notes about the incidence of violence against women which were left on a whiteboard from a Women's Rights App workshop, and this had prompted him to check facts on the internet.

of claimed enlightenment run in advance of critical consciousness. However rather than get into a hermeneutic process of trying to interpret actors' motivation (the truth of which even they may not have access to), we can choose another route. We can take the claims of Aaron and his colleagues as evidence that the women videographers have initiated a process of questioning and critical reflection on how Zambia's unequal gender relations are formed and reproduced and that they have enrolled the men of BongoHive in that progressive process by their innovative appropriation of the film-making process.

What seems clear is that the initiative of the Asikana co-researchers has contributed to a disruption of the dominant narrative of male-dominance, and that a discussion was taking place between young women and men who might not otherwise have afforded them respectful and considered answers, about an issue which the women had reason to value. This can be understood as a productive means to reform unequal gender relations irrespective of the 'truth' of any approval motive. In a context where women are otherwise discouraged from speaking out on political issues (Abraham, 2014), the participatory video process had some evident affordance in opening a new space for discussion on women's rights. As other researchers have found (Shaw and Robertson, 1997; Bery, 2003) the tripod and camera had the affordance of enabling women participants to ask questions they would otherwise not feel comfortable to ask.

My own impression, when I interviewed Aaron and the other men interviewed by Asikana researchers, was that their answers were thoughtful and considered. It seemed to me, from their body language and their pauses for thought, that the BongoHive men were not reeling off politically correct answers but rather that they were working through unfamiliar issues with evident consideration. BongoHive men did not claim that they had always been

champions of women's rights. If they had done I would have been more skeptical. They told me that they had come to BongoHive thinking that women couldn't do tech and yet seeing women build the women's right app and interview, film and digitally edit their own films had changed their mind about women's technical aptitudes. This I judged to be a credible tale of gendered preconceptions being partially challenged by personal experience of women's agency. For his part Aaron concluded that men *'had been overlooking'* the rights of women and seemed to respect being challenged on the issue. By his account, he personally learnt something new, and the perceptions of his male colleagues were adapted to some degree by Asikana's intervention. This is not a grand claim about the ability of participatory video to change the dominant ideology of a nation. It is a modest claim that seeing women programming mobile phone apps, producing films, and having women interview them about women's rights, changed some young men's opinion about what women were capable of, and the questions asked on camera made them think seriously about what needed to be done to improve the situation of women in technology.

By speaking out in their own video productions such as “*Coming Out of the Kitchen*”¹⁰⁷ and “*Asikana Network Women's Rights App*”¹⁰⁸ Asikana members were able to go some way toward disrupting narratives of women as relatively incapable and silent. This resonates with the feminist participatory video practice of scholars, including Louise Waite and Catherine Conn (2012), who use participatory video as a means to create space for young women's voices as well as an opportunity to frame possible counter-narratives to the dominant ideology. Asikana's method could be described more widely as one of creating space for women's voices and for women's talent to develop, a safe place to hone their

¹⁰⁷ <https://www.youtube.com/watch?v=ZD2d5dFR10w>

¹⁰⁸ <https://www.youtube.com/watch?v=NqtEKztCVZQ>

skills and to rehearse resistance to dominant gender norms and values. This theme is developed further in the next section.

The previous chapter examined relatively inward-looking Asikana Network activities that revolved around skills training, mentoring and raising members' sense of self-efficacy. Those activities can be characterised as 'conformist' according to Buskens' (2014) framework, in that they enable women to better cope with (and conform to) existing unequal gender social relations, without attempting to reform or transform them. The preceding three sections of this chapter have examined the relatively outward-facing Asikana Network activities of school outreach, media engagement and tackling men about their perceptions of women in technology. These activities can be characterised as 'reformist' according to Buskens' (2014) framework, in that they enable women to tackle unequal gender relationships and to improve them. They do so, however, without addressing the underlying structural power interests that give rise to unequal gender relationships and provide support to sustain them.

The implicit theory of change of Asikana's outward-facing school and media outreach research work is that it is necessary to change the dominant mindset in Zambia in order to improve unequal gender relations. Research participants repeatedly expressed a desire to effect a new mindset conducive to the kinds of development that they valued. The path chosen to achieve the new mindset has been to combine Asikana's 'conformist' activities, in the material domain of practical skills training and mentoring, with activities in the domain of ideas by engaging with schools and media to contribute to adapting mindsets in a way positive for women's freedoms. Whereas Zambia's public pedagogy has hitherto discouraged women's drive to fulfil their potential in ICTs, and discourages their aspiration

and attainment in this regard, Asikana's actively encourages it; their core message is the 'can do' message that the Asikana mentor provided for Anne in section 6.2 and the “*I can do what a man can do*” message of Susan in section 6.3. By way of critique of the 'women can do anything' claim, in the next chapter, I will argue that, whilst it may be true that any one woman can largely escape the limits of her social conditions, the existence of patriarchy structurally precludes this freedom being available to women, and that these power interests need to be tackled to transform unequal gender relations.

7.4 Reformist Participatory Video

The previous section illustrated how Asikana's innovative use of participatory video seemingly had the effect of disrupting prevailing gender thinking and the relationship between the men and women on either side of the camera. This section will focus on additional examples of Asikana's use of participatory video to reform unequal gender relations. Whilst the dominant culture in Zambia adapts women's agency and disposition to perform deference to men, the film-making process afforded women participants the opportunity to ask men direct questions and to do so about a subject (women's rights), which participants had not previously felt free to discuss publicly for various reasons.

It's not like you don't want to speak out. Maybe you just don't know who and where to speak out. For example I don't know if sometimes these things may be in the constitution. I don't know if anyone can participate. Sometimes it's out of ignorance maybe.

Irene, ID-36PV4

I think it's because sometimes when you don't know how people will respond when you start talking about something, so there's that element of not wanting to be viewed as a rebel, that's why.

Lydia, ID-56NPV

Research participants explained that prior to the participatory video process they had conformed with cultural norms in never discussing women's rights¹⁰⁹ except in private with intimate female friends and family. In explaining why, Lydia and Irene gave as reasons '*not wanting to be viewed as a rebel*' and not being sure how or where to speak out; other research participants said that they felt they lacked the opportunity or 'platform' to air their views. For some Asikana members the participatory video process not only afforded them the opportunity to express themselves within the workshop setting but raised their confidence sufficiently to make them able to raise issues they felt passionately about in spaces outside of Asikana Network.

Yes, I have talked to most of my male friends, and male role models like my father and my uncle, because my uncle is in the branding business, so he has to [...] give a lady a chance, [to use technical machinery] I know a few girls who know how to use that machine, so even convincing men in the business world to give women a chance would actually help them.

Lucky, ID-31PV4

Yes, at home, where we talk about different roles and stuff,

¹⁰⁹ I am using the phrase 'women's rights' here as the discussion arose in the context of Asikana's decision to build a women's rights application for mobile phones. However the discussions referred to were wider than women's legal entitlements and included practical and strategic gender interests more widely.

I've been talking to my brother more, because I don't want him to make his wife a slave, and I don't want to be made a slave as well when I reach that point.

Juliet, ID-34PV4

Both Juliet and Lucky reported talking to men differently as a result of the participatory video process; Juliet said she spoke to her brother more often and with the aim of defending his wife's freedoms, and Lucky's interventions appear intent on affecting the gender division of labour and opportunities for women within a family business. In both cases the women attribute their changed behaviour in relation to men to the participatory video experience. It is possible to interpret their use of participatory video as a space in which they built their self-confidence and practised articulating resistance to gender norms. This use of participatory video to 'rehearse resistance' echoes the findings of Shirley White (2003) regarding rural Indian women who used participatory film-making to rehearse voicing opposition to unequal gender relations in private spaces prior to publicly voicing them to their employers and in a court of law. It also echoes more broadly Jackie Shaw's (2012; 234) finding that whilst early phases of the participatory video process are often about developing a "*type of internally-focused counter-public*", during later phases often, "*the aim is to open to a more externally-focused type of social space for dialogue between the group and the outside world.*" In this research women first practised by interviewing each other about these issues before turning the cameras on men.

The women videographers found that asking men direct questions with the camera on record enabled them to confront men with their own gender prejudices, encouraged them to reconsider their thinking and to provide thoughtful responses for the (digital) record.

Women research participants found that holding a camera with the red recording light flashing led to them being taken seriously and afforded them a considered response, which they were not accustomed to receiving in the absence of the camera. Their appropriation of the technology had the effect of raising women participant's self-esteem, and sense of personal agency to voice issues on which they had previously been silent. This should not be interpreted as a claim that holding a camera disappears structured dimensions of disadvantage such as gender 'race' or class, and only as a claim that the affordance of participatory video was, in this case, disruptive of localised gender power relationships and productive of new thinking and knowledge (including self-knowledge) on the part of the women and men directly involved.

It is unreasonable to imagine that any person is definitively empowered after participating in a video project (Shaw, 2012) or that a short participatory video workshop can, in and of itself, overcome the iniquitous effects of structural gender disadvantage. At the same time gender constructs are not immutable, and participatory video evidently has particular affordances as a tool to disrupt the gender relations embedded in the dominant culture. This view that dominant social constructs can and should be questioned by those that they disadvantage seems to be consistent with Amartya Sen's understanding of the relationship between culture and development. In a speech to the World Bank, Sen (2000; 4) argued that, *“The reach of culture pervades every aspect of what we call development”*, and went on to claim that what is valued and promoted culturally, *“is often deeply swayed by the views of the upper classes, and what appears to be a valuable practice by some, may be viewed by others – occupying less privileged positions within the tradition – as an outgrowth of oppression and inequality”*. In, *How Does Culture Matter?*, Sen (2002) cautions that, *“Taking culture to be independent, unchanging and unchangeable can indeed be very problematic”*, before

concluding that, “*values are not immutable and must not be taken as given. If values can be explained by general social characteristics they can also be influenced through varying the same characteristics*” (2000; 10).

The women of Asikana, in their innovative use of participatory video, deployed critical-agency in the sense of the concept used by Dreze and Sen (2002, 2013); they used participatory video as a tool “*to question and reassess the prevailing norms and values*”. By questioning men about why women were under-represented in the technology sector and pressing them to think why unequal gender relationships remain, research participants prompted some reassessment of gender norms and values. Men's responses confirmed that women face significant gender discrimination and disadvantage in Zambia's ICT sector and that changing the mindsets of men and women is central to removing constraints on women's freedom. Asikana's outreach to schools, and their media work, is part of addressing this challenge. This research also shows that participatory video has affordances for women to challenge men about their gender pre-conceptions.

7.5 Conclusion

The previous chapter focused on Asikana Network's 'conformist' activities. It analysed constraints experienced by research participants and examined Asikana activities that provide members with practical skills and self-efficacy to better cope with the unequal gender relations that they experience. This chapter has analysed Asikana's school and media outreach activities, which are 'reformist' in that they are intent on changing unequal gender relationships. This chapter went beyond the scope of Chapter 6, which identified the constraints experienced by women in Zambia's ICT sector, by investigating with

Asikana co-researchers which cultural 'mindset' and institutional factors serve to (re)produce those constraints. Also analysed was Asikana's unique appropriation of participatory video to challenge Zambian men's attitudes about women in technology, and the particular affordances of participatory video in this regard. In Table 9. these Asikana activities are represented in the Matrix of ICT4D Intent and Practices. All of the activities considered in this chapter are in the 'reformist' column, as they are intent on reforming unequal gender relations. However they do not, in and of themselves, tackle the structural power relationships that underpin them. Transformist practices are the subject of the next chapter.

I have placed Asikana's school outreach and media work in the communication-centric row as both activities are communicative practices intent on affecting public understanding of women's place in Zambia's technology sector. I have placed Asikana's innovative appropriation of participatory video to question men in the human-centred row as the initiative arose from person-centred group discussion about the practical experience of discrimination and disadvantage that participants faced. These activities of Asikana Network can be seen as productive of critical-agency if we limit our concept of critical-agency to 'questioning and reassessing the prevailing norms and values' (Dreze and Sen (2002; 258). They do not however constitute critical-agency as defined in this research, which requires critique and action on structural power interests.

Intent/Practice	Conformist	Reformist	Transformist
Techno-centric ICT4D human interest in <i>Technical</i> <i>Control</i>	Basic computer skills training programming courses		
Comms-centric ICT4D human interest in <i>Practical</i> <i>Communication</i>	Mentoring	Media work School outreach	
Human-centred ICT4D <i>human interest</i> <i>in</i> <i>Emancipation</i> <i>from</i> <i>Domination</i>	Meet-ups support network participatory video technical + communication skills	participatory video Questioning men	

Table 9. Asikana Reformist Activities (source: author)

This chapter examined activities of Asikana Network that shows them as being in the business of adapting preferences in favour of women's increased participation in Zambia's ICT sector. This stands in contrast to the usual depiction of adaptive preferences as the negative affliction of disadvantaged people. By logical extension it is possible to argue (as social constructionists do) that all preferences, ideologies, dispositions and behaviours are socially constructed (and contested) by a variety of adaptive forces, some of which individuals are unaware of, and some of which seek to adapt preferences in directions which are not in the individuals' own best interests. Once it is accepted that all preferences, beliefs, agency, and behaviours are adaptive, and contested, then the task of development, as I argued in Chapter 2, necessarily includes enhancing people's critical capacity to better distinguish their own individual and collective interests (as distinct from dominant interests). Realising lives that individuals have reason to value requires the ability to overcome adaptive preferences and other forms of 'false' consciousness that are, in their own critical judgement, contrary to their best interests. To accomplish this, scholars from both the capability approach (Dreze and Sen, 2002, 2013) and critical pedagogy (Freire, 1970; McLaren, 1994) have argued that critical-agency is pivotal to development.

Whilst Dreze and Sen (2002, 2013) argue that 'critical-agency' is necessary in order for women, "*to question and reassess the prevailing norms and values*", I argue that there are two significant limitations to their position, which are better addressed by critical feminists and by critical pedagogy. The first is a question of practical means and the second is a question of critical depth. Dreze and Sen provide no detail of the practical means by which it might be possible to develop people's critical-agency. Moreover their concept of critical-agency extends only as far as questioning norms and values. As the literature review showed, Sen has nowhere systematically applied himself to analysing the structural power

interests that give rise to, support and sustain, those norms and values. To do so requires a further level of analysis which is absent in Sen's work. This is due, in my estimation, to Sen's core beliefs of liberalism and individualism and his consequent reluctance to go beyond a reformist position. This uncritical position fails to consider that individualism and liberal reformism might themselves be problematic and deserving of critical scrutiny.

With respect to this critical analysis, as well as the question of *by what practical means* can people free themselves from unconscious adaptation and exploitation to serve the strategic interests of others, critical feminism and critical pedagogy provide more theoretical and practice guidance than Sen. I will develop this position further in the remaining chapters.

Chapter 8. Transformist Practices: tackling power interests

This last empirical chapter analyses Asikana activities that are 'transformist' in the sense of Buskens' (2014, 2015) conformist-reformist-transformist categories. Chapter 6 examined 'conformist' Asikana activities that intend to enable women to better cope with (or conform to) existing unequal gender relations, without any intent to reform or transform those unequal gender relations. Chapter 7 examined 'reformist' activities that aim to change unequal relations (whilst leaving the structural power interests that give rise to and support those unequal relations unaddressed). This chapter will focus on 'transformist' activities that intend to fundamentally change unequal social relations by tackling the structural power interests that give rise to and sustain them.

8.1 Contents of Critical-Agency

In this final empirical chapter there is also a change of emphasis 'from product to process', that is to say away from the emphasis on activities and outcomes in the previous two chapters towards a focus on *by what practical means* this version of participatory video generated specific constituent elements of critical-agency. The first six sections of this chapter examine evidence from this research about the constitutive elements of critical-agency and the affordance of participatory video to enhance them. The original literature search identified six potential elements of critical-agency. Of these 'reflection', 'voice', 'dialogue', 'intent' and 'action' emerged strongly during the data analysis. However 'engagement' was not sufficiently evident in the data analysis, nor was it sufficiently distinct from 'dialogue' to warrant separate status, so the category of 'engagement' was merged with that of 'dialogue'. On the other hand the open coding process identified

'theories of change' as a new element of critical-agency.

In addition to these categorical issues I argue that this research process has also clarified a range of definitional issues with regard to critical-agency and its contents. These distinctions stem from the question of what it means to be 'critical'. As I argued in Section 2.3.1, the term 'critical' has become over-extended in ways that have effectively diluted its meaning and made its analytic use problematic. So for the purposes of this research I drew on Geuss (1981), Molyneux (1985), and Buskens (2014) and reserved the term critical to refer to the process of critiquing the structural power interests that determine unequal social relations. In the coding process it became clear that not all 'dialogue' evidenced in the research was relevant to critical-agency. As a result a coding distinction was created between dialogue and critical-dialogue, where critical-dialogue involved group discussion about (un)freedoms and the power interests structuring them. The same distinction proved to be apposite for reflection, voice and the other elements of critical-agency.

As a result of these categorical and definitional clarifications arising out of the research process I produced a revised list of the constitutive elements of critical-agency. The provisional contents of critical-agency based on the literature review were reflection, engagement, dialogue, intent, voice, action (Figure 1.). On the basis of this research these are now modified to become critical-reflection, critical-dialogue, critical-theorisation, critical-intent, critical-voice, and critical-action, as illustrated in Figure 21. The empirical identification of these constitutive elements of critical-agency is a key finding of this research, on which other researchers may build.

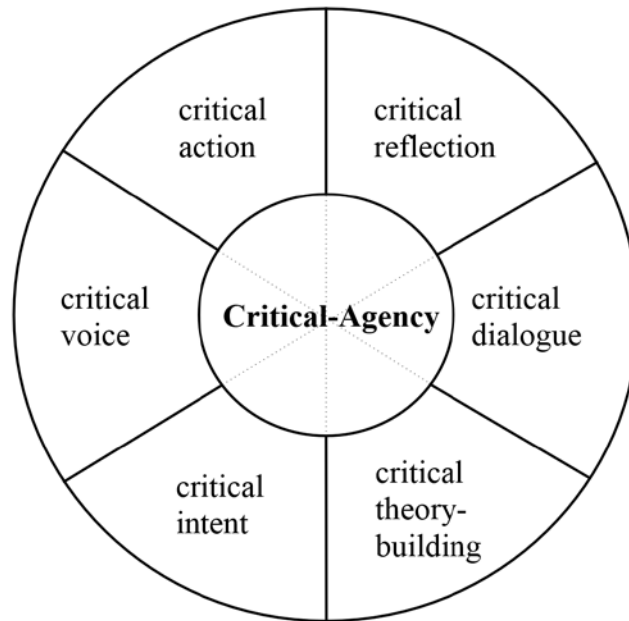


Figure 21: Constituent Elements of Critical-Agency (source: author)

At the risk of over-simplification, the three elements of critical-agency on the right-hand side of the diagram relate to discerning interests (the critique) and the three sections on the left-hand side of the diagram relate to pursuing interests (the agency). Whilst it is tempting to include arrows in the diagram and claim that one element of critical-agency 'leads to' another element (for example critical intent leads to critical action), in reality critical action may also be formative of intent. So whilst it may be conceptually useful to imagine a clockwise sequential order (iterating in a spiral similar to the action research spiral in Figure 7.), in practice the process is fuzzy and may involve moving between elements in almost any order, as well as combining elements in parallel. A closer study of these relationships would be a fruitful area for further research. The next six sections examine evidence that Asikana's use of participatory video enhanced specific elements of critical-agency for development.

8.1.1 Critical Reflection

I think the teamwork and being in front of the camera and getting to talk about the issues we talked about openly, it got me thinking and helped me build my self-confidence. Hannah, ID-05-PV1M

'Being in front of the camera', says Hannah, 'got me thinking'. The affordance of the participatory video process for critical reflection and dialogue is evident in Hannah's comment. Hannah's self-confidence was built by voicing her opinion to camera, and later seeing herself on screen speaking authoritatively on issues that were important to her. The novel experience of seeing, and hearing, themselves projected on screen provided a new perspective from which to view themselves, in a way productive of self-knowledge, that some scholars to liken Lacan's mirror stage (Shaw and Robertson, 1997). The affordance of participatory video to rewind, review your words, re-shoot or re-edit, allowed film-makers to reflect on their words, images and intentions in a way not readily afforded by other means (White 2003; Lunch and Lunch, 2006). This creates a space for participants to escape their normal stream of consciousness and to reflect, leading Kyung-Hwa Yang (2012; 102) to claim that, "*reflexivity is inherent in participatory video*". It is necessary to critique such claims as it certainly possible to be more or less reflexive in a participatory video process and it is not clear whether the reflexivity is attributed to the camera or the process. I would suggest the following distinction is made in this regard. Reflexivity might be considered to be inherent in any kind of 'community' film-making due the technical affordance of a camera's rewind and screening function, but *critical* reflexivity about structural (un)freedoms requires a particular 'participatory video' process. Critical

reflexivity, I would argue, is not inherent in the equipment. It is partly dependant on the criticality of the process design and partly on the criticality of the participants and facilitation. We might reasonably expect participants from a Zambian women's organisation to be better disposed to critical dialogue on gender disadvantage than participants from some other groups. We might also expect facilitators with prior experience and knowledge of critical theory and practices to elicit more critical reflection than facilitators without prior experience (as discussed in Section 4.8), For these reasons I would argue that *critical reflection* is not inherent in the equipment, but can be the outcome of a critical participatory video process. In this sense technology can only amplify existing human capacity and intent (Toyama, 2010, 2015). Put another way, *the realisation of the potential affordances of the equipment (technology-as-artefact), is in practice, a function of the affordances of the wider participatory video process (technology-as-process), and of the human capacity and intent of the facilitator/participants.* In my research with Asikana, small group discussion about experiences from their own lives was productive of critical reflection as Elizabeth comments:

[I valued the] group discussion about women's issues because I think that having that opportunity to share ideas, [...] really, it widens your thinking as well, to the point where you better your understanding and your thinking as well in terms of helping women .

Elizabeth, ID-32-PV4

Like Hannah, Elizabeth attributes her increased understanding about gender issues to the process, but without any reference to the technology itself. This lends weight to the claim that it is not the affordances of the equipment alone that stimulate reflective thinking;

reflexivity is also promoted by the critical pedagogical process (White 2003; 54)¹¹⁰. By bringing people together in critical dialogue about the injustice they experience, the participatory video (and participatory action research) process enables a process of social learning (High and Nemes, 2008) effected by means of a collective excavation, that extends beyond 'surface' understandings, and which produces new knowledge (including self-knowledge) about the often unconscious and hidden mechanisms that (re)produce and sustain unequal social relations. As Justine points out, to improve anything it is critical to identify the root cause of the problem.

*If you have to improve anything you have to know what the problem is
[...] I didn't really know the cause of all those problems. So that work we
did on root causes was useful. Yes. It also taught me all this problem
started from the set of beliefs [...] I knew something had to be done,
but I just didn't know the root cause or I didn't have a wider picture.
The workshop made it wider.*

Justine, ID-39-PV6M

Asikana members like Justine were able to collectively reflect and to progressively refine their understanding of the root causes of unequal gender relations. Justine describes the 'work' that her group did to identify not just the symptomatic problems but their root causes. This illustrates the way that the problem-posing method and film-making were used

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This speaks to the issue, considered in Chapter 2, of whether technology is considered to be technological artefacts such as camera and tripod, or the *process* of applying such artefacts, knowledge and human resources to accomplish human-defined goals. I argue that in ICT4D the later understanding is aposite.

as mechanisms to enable participants to research practical problems that they had in common, and to build up their personal and collective theories to explain subordination/domination. Based on this experience I would define *critical* reflection as: thought and deliberation on circumstances and injustice in order to better understand the structural causes of (un)freedoms. Participatory video has specific affordances for critical reflection. Critical participatory video's process affordances of creating space for groups to reflect on the structural interests determining (un)freedoms and (dis)advantage, as well as the equipment affordances of rewind, screening, editing and replay are all drawn upon in critical participatory video practice.

8.1.2 Critical Dialogue

In arguing for a process of critical dialogue, Freire made a distinction between '*doxa*' and '*logos*'. *Doxa* is the ancient Greek word for 'commonly held belief or popular opinion', as opposed to '*logos*', which refers to 'reason' or 'word'. Freire's epistemology was a process of engaging participants in a critical and dialectical dialogue in which dominant understanding (*doxa*) was problematised and decoded by means of reasoning with words (*logos*) to produce new knowledge that enlightens emancipatory action¹¹¹. As applied in my research this meant involving research participants in a collective process of unpacking 'commonly held beliefs' such as 'women's place is in the kitchen' in order to discern what power interests were embedded in that social construction, as well as how women's agency might further their own strategic gender interests. In Freirian practice critical dialogue is the process of group discussion by which participants become conscious of the ways in

¹¹¹ This can also be understood as a Freirian epistemology being applied to destabilise the dominant ontology in order to attain a particular ethical vision and ontological re-ordering.

which they are subjectively and objectively oppressed, and work out how to transform the situation. Understanding how we unconsciously internalise interests that oppress us is a key part of this process, which often involves self-discovery and subjective learning as much as the identification of the institutional mechanisms and structures of material oppression. In interviews I asked research participants whether, prior to the participatory workshops, they had ever spoken out publicly about the need to tackle unequal gender relationships.

Q. Have you ever previously publicly spoken out about the need for this change?

A. Honestly, no. it has never that much crossed my mind. Maybe I thought this is the way it was supposed to be.

Lois, ID-40PV6M

Q. Have you ever previously publicly spoken out about the need for this change?

A. No, I have never. I haven't had the chance to, and I think I just have fear, a phobia, because there's some stuff, that you know you can say, and it might be helping to other people, but the government might not take it like it's helping, so you might be arrested for something or you might be treated unjustly for what you think is right.

Patience, ID-43PV7

Lois said that discussing gender inequalities '*had never much crossed her mind*', before the workshop; Lois was conscious of the inequality but this has been normalised to the extent

that she thought that '*maybe this is the way it is supposed to be*'. Not used to hearing other women voice concerns, Patience was not sure whether the government would allow her to speak out and expressed fear about voicing her criticism openly, but the participatory video process afforded her a safe space and a reason to discuss these issues with other women. In a country where outspoken journalists are often arrested, and political dissent is frequently met with violence (Catholic World News, 2013), Patience's caution is not entirely without foundation. Patience was not the only person to bring up fear of the government.

I think most people are still afraid, I think our Zambian history, in terms of getting our democracy, our leaders took on how they were treated before, such that even we the nation, the citizens, felt that we needed to respond to our government the same way they responded before they had their independence, which I think has become a habit, in a way that in the past, there was this hierarchy of leadership, when a leader says 'we want to this', you just follow, no questions asked, it's the same thing even now.

Blessing ID-40-MMB

Blessing explains fear of the government by saying that independence leaders have ruled in domineering ways that they had internalised from the period of colonial domination and as a result she thinks citizens remain habituated to an unquestioning obedience. This reflects both Freire's concept of internalisation of oppression and his warnings that liberation leaders often, "*retain characteristics of the dominator*" (1970: 127) and themselves act

domineeringly to reproduce oppression anew¹¹². Despite the oppressive picture that Blessing describes it is clear that, at least within the safe space afforded by the participatory video process, she is articulating a critique of relationships which she sees as problematic and in need of change.

I think conducting the interviews [was most important] because I got to get views on how other people think about these issues [... also] taking part in the focus group, because we all got to give ideas, and then together we broadened the discussion, we really got to the root of why these things happen, and why things are not changing.

Angela, ID-27-PV3

Angela was amongst the majority of research participants who specifically valued group dialogue, a dynamic which is quite distinct from the didactic practices still common in Zambian education (and patriarchal families). Angela appreciated a space in which everyone spoke and '*got to give ideas*' and '*get views*' of others. She illustrates how participants' meaning-making moved inductively from the grounding contextual detail of individual women's existential and concrete situation before '*broadening the discussion*' to root out the underlying determinants of unequal gender relations. Angela's assertion that, "*we really got to the root of why these things happen*", speaks directly to the 'critical' in critical dialogue. What distinguishes the process of critical-dialogue from other dialogue is

¹¹² Freire sees uncritical leadership style as derived from the social structure, arguing that, "a rigid and oppressive social structure necessarily influences the institutions of child rearing and education within that structure...[and that]...The parent-child relationship in the home usually reflects the objective cultural conditions of the surrounding social structure." (Freire, 1970: 154).

its excavation of structural root causes of (un)freedoms. By interviewing each other on camera and discussing generative themes in groups, the participatory video process afforded the research participants the opportunity and means to developed a critique of male-domination in Zambia's ICT sector and its structural underpinnings.

This is in keeping with Martín-Baró's (1996; 56) interpretation of Freire's praxis of dialogical reflection as “*an active process of dialogue in which there is a gradual decoding of the world, as people grasp the mechanisms of oppression and dehumanisation, which opens up new possibilities for action*”. In the previous chapter, Asikana members used the metaphor of being culturally 'programmed' to accept unequal gender relations. It is possible to see critical participatory video as creating a space for people to 'decode' their subjective and material situations; to reveal the structural power interests determining their (un)freedoms; and to inform critical intent and transformatory action (Gutberlet and Jayme, 2010). In stating that their understanding was challenged and revised by the process, research participants can be understood to be affirming the dialectical process embedded in the Freirian problem-posing epistemology.

This resonates with findings from other research examining the role of critical dialogue and the participatory video process. In her work in South Africa, Shannon Walsh (2012; 250-4) also found that participatory video created a space for young people to discuss otherwise taboo subjects and to develop a critical consciousness about the underlying social and political causes of their disadvantaged situation. Yvonne Corcoron-Nates (1993) showed that women in Brazil found group dialogue to be effective in raising awareness about the basis of their disadvantage and in mobilising women for change.

Critical dialogue, that moves deductively from the everyday frustrations of disadvantaged people's lives to uncover the mechanisms of oppression, and which enables participants to realise their agency for change, isn't something that it is possible to rely on happening spontaneously. It does not always happen whenever a group of women are in discussion, or every time a group of women make a film. Critical dialogue normally requires facilitation by someone with critical intent and who is disciplined enough not to impose their own preconceptions, biases and agenda on the process. In interviews I asked research participants to what extent they thought that the role played by the workshop facilitator was influential in bringing about this change?

The fact that he asked us questions that made us think hard and look at things in a different way, not just on the surface, we had to think deeper.

Every time we had discussions, we always thought of things differently, you try to think of it in this way, and then when making the videos, we had to at least see things in a different perspective other than what we see, so in that way I see as driving us and encouraging us to be different thinkers, to think deeper.

Phylis ID-26PV3

I asked this question to Phylis, one of the two facilitators of her workshop, so it is reasonable to presume that a concern for 'social desirability' might lead to Phylis' wanting to be positive about my facilitation (Crowne and Marlowe, 1964; Stoeber, 2001). This notwithstanding, Phylis provides a credible account of the process, describing the problem-posing process as enabling participants '*to think deeper*' about things '*not just on the*

surface'. My claim here is only that the role of the facilitator and the nature of the questions is significant in guiding the process of critical dialogue. In Freirian process the role of the facilitator is to develop participants' 'criticality' by prompting an incrementally deeper critical analysis by posing questions such as, "but why do you think people hold those views?" and "who benefits from things being this way?".

This section has distinguished critical-dialogue from dialogue and, on the basis of this analysis, I propose the following definition of critical dialogue: *group discussion about the vested power interests that structure injustice and (un)freedoms they experience, which produces new understanding able to inform action for transformation*. For the women of Asikana Network, participatory video's affordances for creating a safe space to discuss taboo subjects, its affordance as a means for group deliberation, and its critical process affordance for excavating to incrementally deeper levels of understanding, were all key enablers of critical-dialogue.

8.1.3 Critical Theorisation of Change

As the action research diagram in Chapter 3 illustrates (Figure 7.), planning is one of four phases in the iterative spiral of action research alongside acting, observing, and reflecting (Reason and Bradbury, 2006). Arguably a theory of change is implicit in all planning; that is to say that plans reflect logic sequences such as: if I do A and B then C will be achieved. In the participatory action research process employed in this research an effort was made to make explicit the theories of change that are embedded in social action, in order that participants could consciously develop and refine them over time. Research participants were involved in building both theories of their domination/subordination (problem

identification/articulation) and theories of emancipatory change (solution identification/articulation). We can define the critical theorising of change as the production of theory about how vested interests structure inequality, as well as the production of theory about what action to take in order to overcome it. It is part of the logic of critical feminist and critical pedagogy epistemology that it is only through critical knowledge of the power interests at the root of a problem that you can produce a viable plan to transform the situation.

In the participatory video process, Asikana research participants went beyond listing the constraints that women faced (Chapter 6), to identify some of the institutions and causes of the (dis)advantage that they experienced (Chapter 7). On the basis of this new knowledge they developed their own, albeit preliminary and partial, theories of domination/subordination. That is to say they began building a critical analysis of the subordinate position of Zambian women (a theory of subordination) and discussed how they, Asikana as an organisation, and other actors might act to change the situation (a theory of emancipation). In interviews and focus groups I used standard participatory exercises, including the 'river of life' (Moussa 1994) and 'problem tree' (Hunjan 2011) to enable participants to unearth some of the root causes of constraints on their freedoms, and to build provisional theories both of domination/subordination and emancipatory change. At the end of one critical-dialogue exercise in Focus Group 3, Patience read out the logic illustrated in her group's 'problem tree' diagram to the rest of the focus group:

“From problem to root cause we have:

'Women are reluctant to take up challenging careers' and why?

'Because of tradition, religion, culture and beliefs', and these beliefs go down to?

'What they have always been taught as children', and that is?

'The mindset that is in our society',

[applause]

Patience ID-43PV7 in FG3

Patience articulates the causal links that her group asserted exists between “*women's reluctance to take up challenging careers*” in technology and the public pedagogy transmitted through '*religion, culture and beliefs*', which they argue is rooted in the dominant ideology or mindset of Zambian patriarchy and which defines women's place as subordinate. This particular theory of domination/subordination produced by research participants is supported by the research of Abraham (2014) who found that, in all spheres of their lives, Zambian women are expected to conform to the requirement of the two dominant belief systems of traditional culture and religious orthodoxy. A second group reported back the following:

”Then the outcome of this is that things remain as they are,

because women will be housebound, they will always be in the house

and then women will be afraid to take up challenges

and women will lose out on things that can benefit them.

The other outcomes will be that they're afraid to break tradition,

so things will remain as they have always been.

Women will be limited, they won't go beyond their boundaries

*and women will have loss of esteem, they will lack confidence
and there will be less women in ICT”.*

[applause]

Edith ID-41PV7

In Edith's report-back she makes causal connections between the issues covered in Chapter 6, of women's '*housebound*' position in the domestic division of labour and feelings of low self-efficacy in being '*afraid to take up challenges*'. Edith also links the ideological constraints of '*tradition*' to women losing opportunities and being constrained by socially-constructed '*limits*' and '*boundaries*'. This echoes the boundaries between freedoms and unfreedoms in Sen's conceptual framework (illustrated in Figure 3.). These chains of causation are evidence that in the workshop process participants were afforded the opportunity to speak openly, in several cases for the first time, about their experience of gender discrimination and (dis)advantage, and were able to articulate initial theories of their oppression. In interviews research participants, like Angela and Phylis in the previous section, attributed this new knowledge to group process of critical reflection and dialogue.

In Freirian terms film-making participants developed their ability to '*read the world*' more critically and to '*name the world*' by voicing this critique, a process that generated pride, pleasure and spontaneous applause. The result was a preliminary theory of domination/subordination that provides a counter-narrative to the dominant view that women's subordinate position is natural, immutable and pre-ordained by God. At the same time, in response to the problem-posing questions about what change they would most value, and how they thought that change might be accomplished, research participants used deductive reasoning to identify the practical steps that they could take to change their

situation (implying a provisional theory of change/emancipation).

We should have more organisations to help and encourage women.

These organisations are going to sensitise and educate the women folk [...]

Women should acquire technical knowledge and skills [...]

change their mindsets from the traditional way of thinking.

[Then men ...] are going to accept women in the area of ICT.

There is going to be little or no discrimination of women by men [...]

Women will feel less inferior to men [...]

That will also bring about equal participation in ICTs by women and men.

[applause]

Faith ID-34 PV5 in FG3

This theory of change was developed by one of the subgroups in Focus Group 3, and was then presented back to the full focus group and discussed with Asikana leadership. Each successive iteration of the Asikana participatory video process excavated deeper to decode another level of structure, producing new knowledge about how social institutions and patriarchal power interests structure gender relations in Zambia's technology sector. In progressively excavating the root causes of the discrimination and disadvantage that they experienced, research participants built up chains of causation that could be interpreted as theories explaining women's subordination in Zambia's male-dominated ICT sector. During the process of data analysis, as I worked through their explanations, I interpreted their theories of subordination/ domination as uncovering multiple layers of structure, as illustrated in Figure 22.

The affordance of critical participatory video practice to enable a more critical reading of the world, as well as the affordance of the process employed in this research for developing chains of causation, were key elements enabling participants to articulate theories of their own subordination, as well as theories of emancipatory change.



Figure 22. Excavating Root Causes (source: author)

8.1.4 Critical Intent

Critical intent refers to the process of forming a commitment to act for transformative change (based on new knowledge and enlightenment about interests produced through critical dialogue). Research participants, including Juliet, described how the participatory video process afforded the forming of intent:

Because now we're really getting down to it, we're really discussing it, coming up with problems, solutions and people were giving personal experiences, and really talking about it at length, I got to understand what is really going on [...]. we discussed the problems, we talk about solutions, and when solutions are found, I realise that I want to take part in that change process, so the problems themselves when we discussed them and I got to understand them. It gave me that desire to really want to make a difference.

Juliet, ID-33PV4

Juliet describes how she valued the process of critical dialogue as an effective means of understanding, “*what is really going on*”, identifying potential solutions, and realising a shared intent to, “*take part in that change process*”. Juliet best describes the affordance of participatory video for forming intent when she states, “*It gave me that desire to really want to make a difference*”. As Freire claims in *Pedagogy of the Oppressed* (1970; 48), “*This pedagogy makes oppression and its causes objects of reflection by the oppressed, and from that reflection will come their necessary engagement in the struggle for their*

liberation". Critical feminists, in arguing that '*the personal is political*' (Jones, 1949; Hanisch, 1970) make a similar move. By using the problems that women experience as a starting point in a process of critical dialogue; facilitators are able to ask questions designed to enable women to uncover the political structures of domination/subordination, and to form intent to act for change. Constance expresses an opinion that dialogue is central to solving shared problems:

I think in order for you to solve a problem, it needs to be talked about, you need to talk about it, and then by talking about it, more people get to know more about it and more people get to realise that there is a problem.

Constance, ID-18PV2

I think it would be good to have regular meetings at least once a week and just sit down and talk about these issues, it would be good because [...] there would be new people, and they would share whatever they were going through, and they would all sit down and discuss what we can do about it.

Phylis, ID-26PV3

Constance and Phylis are amongst the majority of Asikana research participants who stated that they valued dialogue as means to raise awareness about shared problems. This collective process is central to Asikana's use of participatory video and to their formation of shared intent. Constance emphasises the need for a dialogic approach and Phylis focuses

on the need to include new people and to agree '*what we can do about it*'. Both women value coming together as a group to share their experiences, raise awareness and build shared intent to act. This coincides with Braden and Huong's (1998) findings, from Vietnam, that use of participatory video can be a means to produce critical intent within a group to overcome the conditions that impoverish them, both subjective personal change from within (self-efficacy), as well as material change in the world around them (collective political action).

Different views and opinions from other ladies that we had the workshop with, because sometimes you might have a limited thinking and limited opinions of certain situations, but if you have different views, you get to be convinced, say okay, so this is important then.

Susan, ID-29-PV3

Women should be sensitised, they should wake up, they should form women's groups and discuss; men should also be there, so that at least we can make a difference together; yes, they should be sensitised too.

Diana, ID-02-PV3

Diana and Susan were amongst research participants who stated that they valued hearing '*different views and opinions from other ladies*', as a way of forming knowledge, preferences and commitments. Diana's assertion that women '*should wake up*' '*form women's groups*', and '*make a difference together*', clearly illustrates her intent; she voices

her frustration at the status-quo, and a desire to act with others to bring about change. Of all the elements of the participatory video process discussed with research participants, group dialogue was the most often cited as generating new knowledge and desire for change¹¹³. This finding that critical dialogue was an effective and valued means of enhancing knowledge and critical intent, coincides with findings from other scholars focused on feminist 'consciousness-raising' groups (Sarachild, 1970; Sowards and Renegar, 2004; Campbell, 2009). Sarachild describes feminist consciousness raising in the 1960s as a means, "*to awaken people, to get people started thinking and acting*", which was achieved by, "*discussing the problems facing women which most concerned them*". Whilst feminist consciousness raising took various forms, second-wave radical feminists like Sarachild (1970; 146-148) saw its purpose as getting to the root causes of the problems facing women, using women's lived experience to inform feminist theory-building about the roots of male domination. Campbell (2009; 29) emphasises that, "*the goal is to make the personal political; to create awareness (through experience sharing) that what were thought to be personal deficiencies and individual problems are common and shared, a result of their position as women*". Freire (1974; 75) makes a related point, in *Education for Critical Consciousness*, when he emphasises for critical reflection to first be grounded in people's daily struggles and for them to reflect, "*about the world, about their position in the world, about their work, about their power to transform the world*". His final point about the need for participants to reflect upon '*their power to transform the world*'¹¹⁴ is central to a concern with critical-agency, which aims not to produce reflection without

¹¹³ Although by way of critique, we might expect a self-selecting bias, as women with with a preference for individual activities are less likely to volunteered for group workshops.

¹¹⁴ This should not be interpreted as a claim that an individual can change the whole world at will, but rather as a claim that all individuals are every day engaged in the (re)production of the world, whether we do so, critically or uncritically, consciously or unconsciously through acts of intent or by omission.

action, but rather to produce reflection on power interests to inform action for transformative change.

Shaw and Robertson (1997; 171) see the affordance of participatory video to stimulate critical intent as key, and speak to both the 'critical' and the 'intent' when they claim that, in their experience, it enables in participants both a '*questioning of their situation and deciding what they want to improve*'. Shirley White (2003) makes a related claim that by creating a space for disadvantaged people to produce a collective analysis of their situation, and realisation of their agency to act, participatory video can generate shared critical intent to change their situation. Chris High *et al* (2012) found participatory video to be a useful platform for critical reflection of 'what is' and 'what could be', and include an example of transformist intent from India where participants had the intent of challenging deeply entrenched class-caste practices. This section has highlighted that Asikana's use of participatory video had specific affordances for forming desire for change, analysing the root causes to target, and forming collective intent for transformation change.

8.1.5 Critical Voice

During the course of this research it became evident that participants were keen to disrupt the social taboo about openly questioning gender discrimination and male domination, a phenomenon that Freire (1970) might have called a 'culture of silence'. Tafnout and Timjerdine (2009) have identified a similar taboo around speaking about women's rights in Morocco. In my research, participants, including Justine a journalist from Macha Community Radio, spoke about being silenced. I quote her at length here:

Tonga women are so submissive, they are told that you are not supposed to answer back at your husband, even though he's doing stupid things [...] They say he's now your father, so they don't have a voice [...]

That's our tradition, before you get married, they tell you you're not supposed to answer back at your husband. You're supposed to follow what he says, if he wants this you must follow what he says. That's what the whole point is - submissiveness. Mostly it applies to your husband, but it's to other men as well

Your husband is beating you and then because of your tradition, you just keep quiet, you think it's okay for your husband to beat you [...]

Imagine a situation whereby you're married to somebody, you can't voice out, you're just there, quiet, imagine what that does to you, it just bubbles inside you

Justine, ID-39-PV6M

It is worth quoting Justine at length because her analysis illustrates so much of how 'patriarchy' works from the perspective of critical feminists. The term patriarchy literally means 'rule by the father'. As Justine explains, in Tonga culture when a woman takes a husband, "*they say he's now your father*"; the woman is effectively infantilised to be ruled by the dominant male patriarch. Cultural proscription denies her the right to voice her

opinion or concerns to him or to other men. This submission to men's strategic gender interests¹¹⁵ is central to the pedagogy taught in the home to daughters by mothers and in pre-marital ceremonies to brides by female elders: *'that's our tradition, before marriage, they tell you you're not supposed to answer back your husband'*. As Justine says, *"The whole point is submissiveness. Mostly it applies to your husband, but it's to other men as well"*. Understood in this way 'patriarchy' refers to a systematic and institutionalised process of male domination in the public-sphere, that reflects the power structures that operate within the private-sphere of domestic life (Heywood, 2003). Justine explains how the culture of silence is (re)produced in her experience. Girls are effectively silenced through a public pedagogy that teaches them to perform submissiveness to men, even when their husbands are *'doing stupid things'*. Justine's statement that *'you just keep quiet, you think it's OK for your husband to beat you'*, is evidence both of internalisation of oppression and its outcome as the effective silencing of women's strategic gender interest to a life free from male violence.

What we might term a public *'Pedagogy of Oppression'* is systematically taught by means of initiation rites (see section 6.1.3), the family (see section 7.1.1), at school (see section 7.1.2), by religious leaders (see section 7.1.3), in the workplace (see section 7.1.4) in non-fiction books (see section 6.1.3) and in the media (see section 7.3.2). To paraphrase Althusser, (1970) we might call these mechanisms the *'ideological apparatus of male-domination'*, that is the means deployed to 'domesticate' Zambian women into relative silence and to play submissive roles in relation to men.

¹¹⁵ Molyneux (1985; 232) recognised that gender positions and roles are socially-constructed for both male and female actors and that therefore, "gender interests are those that women (or men, for that matter) may develop by virtue of their social positioning through gender attributes.

Justine asks us to imagine what it feels like if, “*Your husband is beating you and then because of your tradition, you just keep quiet [...] you can't voice out, you're just there, quiet. Imagine what that does to you, it just bubbles inside you*”. To my mind this is a powerful articulation of what it is like to internalise oppression and to carry it embodied within yourself. The pain and frustration that Justine says '*just bubbles inside you*' can be understood as a form of embodied dissonance resulting from a conditioned quiescence to interests that are antithetical to your own well-being, agency-freedom and strategic gender interests. This might also go some way to explain the sense of felt relief at being able to voice these frustrations.

I felt relieved [at speaking out in the group] because by then it was like I had something that was eating me up inside, and I had no outlet, where I can talk to someone and say 'this is like that', but after the workshop, I felt like I had the time, and I was given the opportunity to express myself.

Anne, ID-14PV2

Until the participatory video process afforded Anne the opportunity to voice her feelings she felt as if, “*something was eating me up inside*”. This embodied cognition (Seok, 2013) echoes the frustration '*bubbling up inside*' Justine in the example above. Although academically we systematically disembodify cognition and reason, we know it to be true from our own personal experience that our moral reactions to injustice are often experienced embodied in our stomachs, and elsewhere, somatically, prior to our reasoned

articulation of them (Seok, 2013; Schnall, 2008). When social conventions or conditioning prohibit us from articulating felt injustices, we experience embodied dissonance (even prior to cognitive dissonance) unless and until we are able to address the cause and/or the social contradiction is resolved. Understood in this way, critical voice and critical action can be seen as a dialectical process of resolving the contradiction of the somatic and cognitive dissonance caused by experiencing injustice and feeling morally compelled to act but culturally constrained from doing so. The resolution of such a dialectic can provide both personal consonance (well-being) and social justice (development). If we accept that Habermas' (1971) human imperative for '*emancipation from domination*' is, as he claims, a fundamental human drive, then perhaps such somatic dissonance is the pre-cognitive and pre-linguistic source of the human imperative for emancipation from domination? Further examination of this phenomenon may be a fruitful area for future research.

Notwithstanding debates around the concept of 'false consciousness' (Lukes, 1974, 2005; Gaventa, 2003; Shapiro, 2006), when female community elders and mothers use their agency to systematically 'educate' girls into submission to men, and school them to keep silent in the face of gender-based violence¹¹⁶, it seems evident that women's strategic gender interests are not being served. Indeed it is men's strategic gender interests that are being served by women's agency in this regard. Bourdieu (1984) might point to women's 'misrecognition' of their interests; Lukes (2005) to their being 'misled', Gledhill (2000) to their 'self-regulation', and Sen (1985a) and Nussbaum (2000) to their 'adapted preferences' but, whichever perspective or nomenclature we adopt, these are evidently particular

¹¹⁶ 50% of gender-based violence is never reported and 60% of women feel that men's violence against women is justified in some circumstance (Chonya, 2007)

examples of social mechanisms that continuously condition women (and men). Women and men internalise dominant gender narratives and patriarchal interests, which are prejudicial to their best interests, and which they are conscious of to varying degrees. In such circumstances critical-agency and critical-voice are necessary to break out of the culture of silence.

Ineke Buskens (2012) has described critical voice as *'speaking up for yourself even when that breaks cultural patterns'*. Andy Blunden (2004) has borrowed from Dreze and Sen (2002) to describe critical voice as *'the freedom to question and reassess'*,¹¹⁷ and in the participatory video literature Tamara Plush (2015, unpaginated) makes a useful distinction between three kinds of voice afforded by participatory video. Plush characterises 'amplified voice' as concerned with giving multiple individuals 'the right to speak'; 'engaged voice' promotes the 'right to participate', and 'equitable voice' focuses on 'the right to influence' by building participants' knowledge and agency *"to transform the unjust conditions and power asymmetries that drive people's marginalisation"*. This latter concept of 'equitable voice' resonates with the idea of 'critical-voice' being used here. I would define critical-voice as that element of critical-agency whereby people articulate a critique of the injustice or (un)freedoms that they experience and of the power interests that give rise to and support them, and their intent to act to transform the situation. This interpretation of critical-voice is consistent with the Freirian idea of *'denouncing in order to announce'* (Macedo, 2001; 26), a two-part process of *'naming the world'*, in which participants voice their denunciation of the problem, and their annunciation of intent to 'act in the world' in

¹¹⁷ Blunden claims that, *"Sen introduced the term critical voice"*, however my research suggests that Sen never used the term "critical voice" and this appears to be a misattribution or conflation with Dreze and Sen's (2002) use of the term critical agency.

order to transform it. In evidence in this section was participatory video's affordance for creating a safe space in which the culture of silence can be broken, participants can voice feelings and speak openly about taboo subjects.

8.1.6 Critical Action

Without action, critical-agency is devoid of transformative power. Critical-reflection, critical-dialogue, critical-theory building, critical-intent and critical-voice are necessary but insufficient conditions of transformative human development. In the kind of agency-based human development that frames this research, *“women should themselves feel that they have been the agents of the transformaton”*, (Young, 1993; 157). It is important to emphasise that members of Asikana Network were taking action to tackle gender inequality long before their experience of participatory video. The establishment of Asikana Network and its programme of activities were, from its outset, intent on challenging prevailing gender norms and values, and specifically the proscription that the technology workplace is not a woman's place. What this research did set out to do, and which had not previously been attempted in Asikana Network, was to use participatory video to enhance member's critical-agency to identify and act upon the structural power interests giving rise to the discrimination and (dis)advantage that they experience as women in Zambia's male-dominate technology sector.

In order to distinguish action from critical-action I propose the following definition: action informed by a critical analysis of vested power interests, which is intent on transformative change. In the following section I examine two areas of Asikana activity that constitute critical action. These activities are 'transformist' in Buskens' (2014) sense of aiming to

transform the structures that support gender inequality, and address women's strategic gender interests in Molyneux's (1985) terms.

8.2 Asikana Activities: transformist practices

Asikana Network activities that can be considered to be 'conformist' and 'reformist' were analysed in Sections 6.2 and 7.3 respectively. In this section I consider Asikana activities that can be considered to be 'transformist'. According to Buskens' (2014) definition, in order to be transformist activities need to be directed not only at improving unequal gender relations, but must also address the structural power interests that give rise to and sustain unequal gender relations. I read this distinction around 'structural power interests' as an interpretation of Molyneux's (1985) concept of 'strategic gender interests', amongst which she includes the aims of women gaining political equality; ending institutionalised gender discrimination; and ending men's violence toward, and control over, women.

Asikana's Women's rights mobile application (WRAPP) and their proposed Violence Against Women digital initiative both target women's strategic gender interests, and so could be considered transformist. They are analysed in the next two sections.

8.2.1 Women's Rights Mobile Phone App

Asikana Network regularly runs practical training courses in 'mobile development': the programming skills necessary to build mobile phone applications, or 'apps'. As a result of the critical dialogue session on women's rights as part of the participatory video process, Asikana members decided to build a mobile phone 'app' that would provide women with accessible and actionable information about women's rights, including what action to take

if these rights are violated or threatened¹¹⁸. When Asikana Network informally surveyed its membership, few of them were cognisant of their legal rights. It was, therefore, decided to collectively produce a Women's Rights App (WRAPP) which Zambian women could use to access and share information on (i) the rights that women in Zambia have (ii) what legislation or convention provides them with that right (iii) which Zambian non-governmental organisations provide services in relation to that right and (iv) contact details of support organisations¹¹⁹. A two day 'hackathon' was organised which convened lawyers, bloggers and journalists, human rights workers, and women's organisations to draft the contents and structure of the mobile application. The WRAPP opening screen is illustrated in Figure 23. A participatory video was made to introduce the app to an international women's conference¹²⁰. These tools were then used to raise the issue of women rights using traditional and social media.

We have been on air with one of the radio stations, talking about the women's rights initiative and the need for change, trying to sensitise people and develop an app on these rights.

Florence, ID-24NPV

Florence was one of the Asikana members who spoke on radio about the Asikana women's rights app (WRAPP) '*to sensitise people*' about '*the need for change*'.

¹¹⁸ The first version of the app, which was completed within the period of this research, covered the right to live free from violence, to equal employment, education, reproductive health, access to information and the right to inherit property and to vote.

¹¹⁹ <http://www.zamrize.org/wrapp/> web-based outline of the mobile phone application Wrapp.

¹²⁰ Video introducing Wrapp <https://www.youtube.com/watch?v=NqtEKztCVZQ>



Figure 23: Women's Rights App (source author)

The publicity that they were able to generate around the app significantly increased Asikana's profile, members' sense of self-efficacy, and their developing sense of critical intent.

At the workshop I got to learn some of the rights that I as a woman have,

and I didn't know I had them [...] they're not normally talked about, because women in Zambia currently, or in the past, they've been known not to really speak out. Most of the time women wouldn't know this is their right, even if they knew them, they wouldn't really stand up for them [...] my voice one day is gonna be heard, I can stand up for my rights.

Bella, ID-28PV3

This critical action illustrates the capacity that Asikana has to challenge the '*culture of silence*' (Freire, 1970) around 'taboo' issues¹²¹ such as women's rights, and their ability to disrupt dominant narratives. By bringing its own member network together with wider external networks of civil society, Asikana proved itself able to produce new knowledge, raise members' and public awareness about women's rights, and produce a prototype app that could form one part of a wider campaign to address women's strategic gender interests.

From the perspective of the capability approach, Amartya Sen (1999; 288) has argued that, quite apart from the instrumental importance of political and legal rights in '*providing security and protection to vulnerable groups*', the process of attaining them is key to an agency-based concept of development. "*The emergence and consolidation of these rights can be seen as **constitutive** of the process of development*" (original emphasis). From a critical-agency perspective, key would be the discussion amongst those denied their rights to discern the structural basis of that denial and to discern what interests were being served. The process that Asikana adopted to build its Women's Rights App did involve such

¹²¹ By referring to these subjects as 'taboo' it is worth noting that whilst gender issues are discussed in the Zambian parliament and in office of development agencies and gender organisations, the women research participants reported not being free to discuss them openly their local contexts.

discussions. However it is possible to critique any project based around a smartphone app on the grounds of inclusivity. The majority of Zambians do not own smartphones, due to their relatively high cost, and the people least likely to own them would be poor, rural women (Demombynes, 2012). The smartphone version of the app was only developed for Android phones, further reducing the scope of inclusion. Asikana did however consider these issues from the outset. It was always their intention to develop versions of the app for other platforms, and to make its contents available in a web-based programme, and to users of basic mobile phones via a bulk text messaging service such as Frontline SMS. There are also plans to combine the use of the app with their existing schools outreach programme and community radio work, to reach people with no phone.

In 2014 Facebook decided to include the women's rights app in their free Internet.Org distribution in Zambia which enabled many thousands of Zambians to access the Asikana app provided on their ordinary (non-smart) mobile phones. Tracking the development of this app and particularly the consequences that it may have in the lives of the women who use it would be an interesting area of further research.

8.2.2 Violence Against Women

Asikana Network are intending to launch an initiative addressing violence against women. Ending men's violence against women is an example of what Molyneux (1985) terms women's strategic gender interests and which Buskens' might see as transformist.

Some women, they are being beaten because 'they are not supposed to

Speak before [their husband] speaks', then he gets his stick and starts beating the wife, it was bad, it wasn't good, so as children you don't feel good, you don't feel secure and safe.

Diana, ID-02PV1M

Diana's personal experience of seeing a woman being beaten stimulated a discussion about the politics of violence against women in Zambia. In her example, silence was enforced with violence. Domestic violence in Zambia is prevalent and normalised (Chonya 2007). During the participatory video process, The Post newspaper ran a story with the headline "Beating Wife is a sign of Love", (Post, 2013) which was the excuse offered by the Minister of Defence when arrested for assaulting his wife¹²². In another public example when celebrity Zambian vocalist Owas Ray Mwape was arrested for beating his wife the police 'begged' him not to take the matter further according to a BBC report¹²³. Diana's experience shows that the relative silence of Zambian women in relation to men is not a state of affairs that is arrived at by mutual consent but that it is an effect of male domination, transmitted by culture, and enforced by violence where necessary.

For instance politics, men always want to go ahead in political issues and thinking that women are supposed to handle other matters and not be the ones in front talking.

Edith, ID-41-PV7

¹²² During the time I was researching in Zambia, news coverage revealed several incidents of gangs stripped women naked in the street for wearing mini-skirts. Video Report <https://www.youtube.com/watch?v=FaIFmhGZm1E> Blog article <http://www.tumfweko.com/2015/04/03/woman-stripped-naked-for-wearing-a-mini-skirt/>

¹²³ [Http://news.bbc.co.uk/1/hi/world/africa/8375291.stm](http://news.bbc.co.uk/1/hi/world/africa/8375291.stm)

Edith's example shows how the silencing of women, coincides with men's strategic gender interest in dominating the space of political power. Women are '*supposed to handle other* [presumably domestic] *matters*' and leave the domain of politics to men. Relative to men, women are severely under-represented as political representatives in the Zambian parliament (16 women out of 150 MPs) as they are in senior positions in the judiciary, military, religious, media, business and technology sectors.

As discussed in Section 5.5.3 rates of violence against women in Zambia are very high; 47% of women report subjection to physical violence, 20% to sexual violence, and perhaps most alarmingly, 62% of women felt that a man was justified in beating their wife in some circumstances (Chonya, 2007). Discussion of these issues in the participatory video workshop revealed that participants did not know what their rights were on a range of gender issues. It was therefore resolved to develop a Women's Rights App and to build a "Harass Map" on Open Street Map to geo-locate incidents of sexual harassment and assault. This concept has been implemented in several countries and is used as an organising and publicity tool to make visible sexual harassment and to put political pressure on government agencies to take action on gender-based violence¹²⁴. It also offers the benefit for isolated women who are subject to violence to access advice and solidarity from other survivors of violence against women. By the time the research period ended the first version of the Women's Rights App had been produced and the initiative taken up by Facebook. Due to resource limitations the Harass Map was still on the drawing board. However, in targeting ending violence against women, the initiative has transformist intent. Participatory video's affordance as a platform of critical dialogue proved to be an incubator

¹²⁴ See <http://harassmap.org/en/>

for critical action in the form of the women's rights app. The next section will show, how participatory video's affordance for excavating the structural root causes of (un)freedoms, was key to participants identification of intersectional power interests determining gender (dis)advantage.

8.3 Transformist Participatory Video

I analysed the use of 'conformist' and 'reformist' uses of participatory video by Asikana in Sections 6.3 and 7.4 respectively. In this section I analyse Asikana's critical practice of participatory video and I will argue that it can be considered transformist according to Buskens' (2014) categories. Following Geuss (1981), critical participatory video practice must go beyond critical reflection and dialogue to produce knowledge and enlightenment about interests, and inform emancipatory action. The participatory video practice employed with Asikana Network was critical in these terms. We can define critical participatory video practice for the purposes of this thesis as participatory video practices that address structural power interests. To expand a little, by critical participatory practice I mean one which involves participants in an investigation of the structural power interests that determine the injustices that they experience in order to discern their own best interests and self-determine action to transform their situation. This analysis of interests is the subject of the next section.

8.3.1 Whose Interests?

Asikana used participatory video and critical dialogue sessions to identify gendered constraints and unfreedoms (in Chapter 6), and to identify a range of institutional mechanisms by which unequal gender relations are (re)produced (in Chapter 7). To be

'critical' as defined for the purposes of this research, participants needed to identify the power structures determining those unequal relations. To guide the participatory video process to this level, in critical dialogue sessions, and later in interviews, research participants were asked what interests they thought were being served by the existing constraints and institutions that they had identified.

To the question, "Who benefits from this situation?". 'Men' was the very clear and almost universal¹²⁵ response from women research participants, as well as from a majority of the men interviewed. Whilst this may be considered self-evident, I felt it was important to ask the question for two reasons. Firstly, the concept of 'false consciousness' might suggest that an oppressed group be ignorant of whose interests were being served. Secondly, my interpretation of Freire's method suggested that it was necessary to cognitively confront and 'name' the basis of oppression, as part of the process of developing a critical-voice.

In their response to this question, and in their responses during other aspects of the participatory video process, research participants evidenced sufficient 'consciousness' about their circumstances to question the use of the term 'false' consciousness. Controversy has surrounded the concept of false consciousness for many decades, not least because the question arises: 'if a person's consciousness is false, then by what means can 'true' consciousness be determined?'. By the same logic it might be asked: 'if a preference is adapted, then by what means can a person's authentic or 'un-adapted' preference be determined?' However, in order to avoid being sidetracked by a debate that remains

¹²⁵ One female research participant responded that she didn't know who benefited and one replied that neither women nor men really benefited. Some men also replied that neither benefited but all were in favour of greater female representation and equity.

unresolved after decades of academic debate, and which is ultimately beyond the scope of this thesis, I will focus instead upon whether, and to what extent, agents are critically aware of vested interests (Gaventa, 1980) and of their own strategic gender interests (Molyneux, 1985).

Despite research participants evincing significant awareness of the causes of constraints on their freedom (section 6.1), and of the mechanisms supporting unequal gender relations (section 7.1), some evidence of a lack of critical awareness was also evident.

*Because of my mindset, I would rather have a male President all the time
[...] it's better for males to be President than a female, just like that,
can't stop it.*

Charity, ID-01PV6M

Charity attributes her preference for, “*a male President all the time*”, to her mindset, to a way of thinking that she has internalised and considers to be immutable: “*just like that, can't stop it*”. Accepting patriarchal thinking uncritically effectively limits the possibilities for women's political power, and therefore is not in women's strategic gender interests if we use Molyneux's (1985) criteria. This would appear to be an example of a person having internalised the interests of male domination (and would be considered to be a clear example of false consciousness or adaptive preferences by adherents of those terms).

*I.T. is a male-dominated course or industry so they think, or we think,
that women being in technology is not really a good thing, because we*

think women are supposed to be in the kitchen and all these other traditional aspects come in.

Hannah, ID-17PV2

Hannah's equivocation between '*they-think*' - '*we think*', could be considered to speak to the way in which members of subordinated groups come to internalise the oppressive attitudes of dominant others towards themselves. Freire argues that, by internalising their oppressor's projected beliefs about them in this way, subordinated groups come to be self-limiting in their aspirations and in doing so contribute towards their own oppression.

That's how we are raised, our parents used to tell us that men are the head of the house'. I said 'In everything?', 'Yes, in everything'. Even in speaking out, they should be the ones who speak first, that's how we were taught, and so, they grew up with that, and then when my grandmother had my mother, she taught my mother the same things, and then my mother also taught me.

Diana, ID-02-PV1M

In this example Diana raises the issue of the prominent role that women can play in reproducing male dominance inter-generationally by teaching obedience to male authority to their daughters (Chester, 2001). I interpret women teaching girls to be subservient to men as an example of the internalisation of oppression and lack of critical consciousness about strategic gender interests. Like Sen's (1999, 2002) example of 'son preference' discussed in Chapter 2, this is not a problem that can be solved by increasing women's

empowerment and agency, since (to paraphrase Sen) women's agency here is complicit as an integral cause in the reproduction of unequal gender relations. In escaping this situation then, as discussed in Chapter 2, “*The pivotal issue is critical-agency*” (Sen 2002; p258).

Asikana's work in general, and their use of participatory video in particular, created a new space for women, disadvantaged by patriarchal hierarchies and by discrimination in the technology sector, to critically reflect and to identify the structural root causes of their subjective and material oppression. This dialogic, and dialectical, process was productive of new knowledge and enlightenment about their practical and strategic gender interests. To the extent that this reflection, new knowledge and enlightenment informs emancipatory action, Asikana's work meets Geuss' definition of a 'critical' theory-practice¹²⁶. In terms of strategic gender interests it is significant that the aim of 'gender equality', which was not present in their 2012 strategic plan (Asikana, 2012) is now the first of six organisational principles listed on their website¹²⁷. This is significant because Molyneux (1985) counts the objective of gender equality as one of women's strategic gender interests.

Molyneux (1985; 232) also pointed out that women have interests other than gender interests, arguing that, “*women are positioned within their societies through a variety of different means - among them, class, ethnicity, and gender*”. The next section builds on evidence from research participants presented in previous chapters, to support the argument that many women also have strategic 'race' interests and strategic class interests, and that for many working class or Black women these power interests intersect (Davis,

¹²⁶ Following Geuss (1981) this thesis considers a theory-practice to be 'critical' to the extent that it is a reflective practice that gives agents a kind of knowledge that is productive of enlightenment about interests and inform emancipatory action. See section 2.2.1

¹²⁷ <http://asikananetwork.org/sample-page/>

1982; Crenshaw, 1989; Hill, 2000).

8.3.2 Intersectional Power Interests

The participatory video process made evident that research participants' analysis of constraints on their freedom was not limited one-dimensionally to male domination. Whilst women participants were almost unanimous in identifying the principal beneficiary of unequal existing gender relations to be men, their analysis of their situation also revealed other vested power interests at play.

We'll probably even bring out things of tribalism now, where we say, for example, this one is from the east and I'm from the south, they will probably want to take in somebody from the east just because their manager or their boss is from the east [...] there will be a bit of some tribalism, that would obstruct me from getting what I wanted.

Edith, ID-41PV7

Edith presents ethnicity as another element of the structures of opportunity and constraint that co-determine Zambian women's experience. As a Tonga woman from Zambia's Southern Province, Edith fears that a Bemba employer from the (north) East might prefer to employ someone from their own ethno-linguistic group and, “*obstruct me from getting what I want*”. Whilst Zambia is relatively peaceful and free of ethnic conflict when compared to some of its neighbours, as discussed in Section 5.4 on 'race'-ethnicity, in Zambia political patronage favours the Bemba majority (Posner, 2005; Erdmann, 2007).

The Minority Rights Group argue that “certain minorities in Zambia have occasionally faced stress and outright discrimination” with the Lamba minority taking on a 'low-caste status' (MRG, 1997). Class interests were also evident.

People from out there in the compounds, the shanties and ghetto, that's where we need to teach more people about women and how they should change and how they should come up, and how they should get educated [...] Here [in the middle-class suburb where BongoHive is located] people get more educated [...] most of them have got their parents as role models. Take Bella for example if she was from that side [the shanties] she would be pregnant or married or something by now.

Susan, ID-29PV3

The comments of Susan illustrate her view that class is co-determinate alongside gender in explaining (dis)advantage for woman like herself who live in Lusaka's informal settlements¹²⁸. Susan drew a direct comparison between the different life chances of women like herself and co-participant Bella who came from a relatively privileged background in Lusaka's middle-class suburb of Olympia¹²⁹. Susan's claim that the inequality experienced by women is structured by class as well as gender finds support in the existing literature. Hansen (1994; 51) found that in Zambia, “*gender is socially constructed in relation to class, to race and to a host of other relationships*”. She

¹²⁸ Demographic information was not systematically collected on how many participants lived in informal settlements. However my own observations confirm Susan's assessment that distinct classes were represented, from the working class shanties, to middle-class women whose parents were diplomats.

¹²⁹ Bella lived in large security-gated home in the prosperous suburb of Olympia where her parents were evangelical preachers. Bella was able to afford her own laptop and to go straight from school to university.

specifically mentions age, region, and ethnicity, and concludes that, “*We cannot understand the interactions of these relationships without reference to gender*”. The importance of ethnicity as a social determinate in Zambia is confirmed by Posner (2005) and Larmer (2011) amongst others. However Posner makes a distinction between what he calls '*tribal affiliation*' and '*language group membership*' and asserts that, since independence, the determinacy of tribal affiliation has waned as the influence of language groups has increased over time. Scholars of intersectionality (Davis, 1982; Crenshaw, 1989, Hill, 2000) have illuminated the way in which multiple layers of (dis)advantage differentiate the experience and interests of women in relation to one another.

As the quotes above attest, the participatory video process proved adept at identifying that women's (dis)advantage in Zambia is structured along intersecting dimensions that include gender, class, and ethnicity. The complex 'matrix of domination' (Hill, 2000) structuring the lives of Zambian women makes the task of precisely defining or assessing the interests of any abstract category 'Zambian women' extremely complex, if not impossible. Specific situated groups of women need to determine for themselves what their practical and strategic gender interests are, based on situational factors (Young, 1993). Participatory video is one means of facilitating this critical dialogue. Acknowledging difference need not be interpreted as a claim that Zambian women cannot find common cause; as Eloise says,

*Somebody can be in the rich class or middle class, or the poorer class,
but there's still so many things that women are dealing with
across the board.*

Eloise, ID-44PV7

These examples of 'race' and class intersectionality were evident despite there being no questions on either subject anywhere in my research design, and my never raising the subject. This is a clear weakness of this research. A lesson arising from reflecting on these outcomes is that the interview and focus group guides should have included questions designed to identify womens interests beyond their gender interests. Intersectionality in ICT4D is an important area where further research is necessary.

8.4 Conclusion

This chapter began, in Section 8.1, by analysing how the process of participatory video has enhanced each of the six constitutive element of critical-agency for development (summarised in Table 10.). I summarised the specific affordances of participatory video that invite, allow or enable particular elements of critical-agency in Table 10. (below).

In Section 8.2 Asikana's 'transformist' activities of the Women's Rights Apps, their planned Violence Against Women mapping initiative were analysed. Then in Section 8.3 I examined Asikana's transformist use of participatory video to identify the intersecting power interests structuring unequal gender relations and women's (dis)advantage. I am now able to add these final elements to the Matrix of ICT4D Intent and Practices in Table 11 at the end of this chapter. I have included the Women's Rights App and the Harass Map in the 'communication-centric' row because they intend to be ways of facilitating communication between affected women as well as ways to prompt public awareness and understanding about this issue.

Elements of Critical-Agency	Affordances of Critical Participatory Video Practice
Critical Reflection	<p>Affords a reason to gather film data on an issue of injustice Affords a space to reflect on past/present experience of injustice Affords critical depth by asking '<i>why</i> are things this way?' Affords reflection on the root causes of (dis)advantage and injustice Reflection on experience of injustice vs conception of the good Short iterative film-making affords excavation of power interests</p>
Critical Dialogue	<p>Films provide critical generative themes for group deliberation Facilitation affords an incrementally deeper analysis Dialogue moves inductively from the personal to the political Affords a safe space to discuss otherwise 'taboo' subjects Dialogue moves inductively from practical needs to strategic interests Films excavate by asking 'but <i>why</i> is that?' Collective analysis of socio-economic-political-religious structures</p>
Critical Theory-Building	<p>Films ask '<i>why</i> hasn't change already happened?' Problem trees afford means to map causal chains of (dis)advantage Films ask 'what change would you most value?' Affords opportunity to 'read the world' incrementally more critically Solution tree affords means to theorise emancipatory change</p>
Critical Intent	<p>Affords a space with peers to break the 'culture of silence' Films ask 'is there anything that we can do?' Analysing root causes helps determine shared target for change Storyboarding and re-editing afford deeper thinking to refine logic Affords formation of collective intent to act for transformist change</p>
Critical Voice	<p>Films afford opportunity to voice critique of dominant interests Affords users permission to be critical and to question <i>why</i>? Affords means to voice dissent and to author counter-narratives Affords clear articulation of collective denunciation/annunciation Affords under-heard groups the opportunity to 'name the world'</p>
Critical Action	<p>Iterations of reflection-action-reflection deepens conscientisation Films ask 'what is to be done?' to transform the situation Affords means to 'act in the world' more critically</p>

Table 10. Elements of Critical-Agency and Affordances of PV (source: author)

The use of participatory video to excavate power interests I have located in the human-centred row as it arose from the participatory process and uses group dialogue to identify, critique and inform action to tackle the power interests that (re)produce discrimination and disadvantage for women.

The critical practice of participatory video adopted in this research was designed in response to Asikana women's practical experience of (dis)advantage and aimed to engage Asikana members in a progressive excavation of the root causes of that (dis)advantage. Participants were able to build their own individual and collective chains of causation and critical theories of change. By working inductively from the practical constraints that they face to the institutional mechanisms and finally to the structural power interests determining those unfreedoms (Figure 22.). They then used participatory exercises including problem and solution trees to work deductively from their theories of domination/subordination to determine what practical actions to take as individuals and as a collective. In doing so they constructed critical theories of change/emancipation. These theories are always open and subject to future revision and refinement.

From the perspective of Sen's capability approach, critical-agency means the '*freedom to question established values and traditional priorities*' Dreze and Sen (2013; 232). From the perspective of critical theories this questioning is necessary but insufficient; critical action must also be taken to tackle the vested power interests that give rise to and sustain those established values and priorities. The women's rights mobile phone app provides Asikana members with the opportunity both to '*question established values and traditional*

priorities' and also to act collectively to produce change. Violence against women falls within Molyneux's (1985) category of strategic gender interests. So I would argue that Asikana's action in producing the app, and using it to raise these issues on radio and social media is 'transformist' according to Busken's framework. However, it is also possible to argue that it would not have been possible for Asikana members themselves to design and code the app had it not been for Asikana's mobile development skills training classes. Whilst those vocational classes in and of themselves might be classified as 'conformist' (enabling women to access employment without challenging unequal gender relations), when considered as part of the wider programme of Asikana activities, what becomes evident is their 'transformatory potential' (Young 1993). As Sara Longwe (1991) and others have shown, it is often productive, at the same time as attending to women's immediate practical interests (for vocational skills), to enter into critical dialogue with participants about the structural basis for their disadvantage. By such processes of 'conscientisation' participants are enabled to form collective intent to overcome the conditions that oppress them.

In the final chapter I will re-present the main findings to draw some final conclusions about the extent to which participatory video can enhance critical-agency for development.

Intent/Practice	Conformist	Reformist	Transformist
<p>Techno-centric ICT4D</p> <p>human interest in <i>Technical Control</i></p>	<p>Basic computer skills training</p> <p>programming courses</p>		
<p>Comms-centric ICT4D</p> <p>human interest in <i>Practical Communication</i></p>	<p>Mentoring</p> <p>Meet-ups</p> <p>support network</p>	<p>Media work</p> <p>School outreach</p>	<p>Violence Against Women project (planned)</p> <p>Women's Rights App (WRAPP)</p>
<p>Human-centred ICT4D</p> <p>human interest in <i>Emancipation from Domination</i></p>	<p>participatory video technical + communication skills</p>	<p>Participatory video Questioning men</p>	<p>participatory video that excavates power interests</p>

Table 11. Asikana Transformist Activities (source: author)

Chapter 9. Conclusion

This research was motivated by the gender discrimination and disadvantage experienced by women in Zambia's ICT sector and by the collective agency of the women of Asikana Network to use ICT4D in order to overcome it. Empirically, this thesis has analysed Asikana members' experience of gender discrimination and (dis)advantage, their critical understanding of its institutional underpinnings, the structural power interests that are its root causes, and the efficacy of Asikana's various uses of ICT4D in tackling gender (dis)advantage. The central research question was whether Asikana could make effective use of participatory video to enhance critical-agency for development. Theoretically this research has sought to develop conceptual clarification about critical-agency's constitutive elements, and to better understand the particular affordances of participatory video to enhance critical-agency for development.

In terms of contributions to the existing literature this thesis provides a longitudinal case study foregrounding women's experience of gender discrimination in Zambia's ICT sector as well as a study of the collective agency of Zambian women using ICT4D to tackle gender injustice. The thesis also contributes knowledge about the particular affordances of participatory video to enhance critical-agency for development. Clarification of the concept of critical-agency, including definition of its constituent elements, is provided by this research. Theoretically, this thesis makes claims about the relative merits of Sen's capability approach, and critical theories, as guides for development theory and practice. The thesis will conclude by making some methodological recommendations for the critical practice of participatory video, as well as suggestions towards a critical practice of ICT4D

characterised by emancipatory process and transformist intent.

This final chapter is divided into three parts; it starts with a restatement of the research problem, then presents key findings in the form of direct answers to each of the research questions, before offering recommendations for critical development theory and practice.

9.1 The Development Problem

The development problem addressed by this research is the profound discrimination and (dis)advantage faced by women in Zambia's male-dominated ICT sector. Zambian women and girls experience multi-faceted discrimination and disadvantage if they pursue their preference for education or employment in ICT. This disadvantage results in serious under-representation of girls and women in STEM subjects at all levels of education and an under-representation of women in technology workplaces, especially in high-paid and senior roles. This is a particular problem for women in a world where information and communications technologies are playing an increasingly central role in key aspects of social and economic life.

Zambian women are not passive victims in the face of this oppression. Asikana Network was established by Zambian women to support other women and girls experiencing gender disadvantage in the country's emerging ICT sector. Asikana have developed a range of innovative ways of using ICT4D to pursue their organisational objectives. Those objectives now include, “empowering women and girls through the use of ICTs”, and achieving

“gender equity and inclusiveness”¹³⁰. This research analysed whether the women of Asikana Network were able to use participatory video to enhance their critical-agency for development, as well as assessing Asikana's various uses of ICT4D.

By using a participatory action research approach I was able to involve Asikana members as co-researchers to investigate the efficacy of Asikana's use of ICT4D to meet both member's practical gender needs (for skills, employment) as well as their strategic gender interests (of gender equality and freedom from male violence). The participatory video process itself addressed members' practical needs by developing their technical skills in film-making and their communication skills and self-efficacy. It also addressed their strategic gender interests by building their critical-agency to identify power interests and to act collectively to challenge them. Through the participatory video process I was able to involve Asikana members in a process of investigating what Naila Kabeer (2013; 2) calls, *“the dense root-structure of gender injustices experienced in [women's] daily lives”*. Women made films to address questions such as: 'Why are women under-represented in Zambia's ICT sector?' and 'What can be done to address the situation?'. Each iterative round of the participatory video process involved film-makers in a critical process of more deeply excavating the structural root causes of the (dis)advantage that they experienced. Research participants identified not only some of the institutional mechanisms by which unequal gender relations are (re)produced, but also identified patriarchal power interests as key in determining unequal gender relations.

The following sections will restate the key findings of this research by directly answering

¹³⁰ Asikana co-Founder talking in WRAPP film <https://www.youtube.com/watch?v=NqtEKztCVZQ>

each of the research questions that were set out in Section 1.5. before then summarising the key research contributions.

9.2 Answers to Research Questions

The primary research question (RQ1)¹³¹ was, *'under what circumstances, if at all, does the use of participatory video enhance people's critical-agency to determine their own development?'* That question had three subsidiary questions SRQ1.3, SRQ1.2 and SRQ1.1 which asked to what extent outcomes were affected by contextual, personal and methodological factors respectively. I will answer the detail of the subsidiary questions first before responding to the substantive question at the end of the section.

9.2.1 Contextual Factors

Subsidiary research question SRQ1.1 asked, *what contextual factors influence outcomes, where 'contextual' refers to situated political, economic and social contingencies.*

On the basis of this research experience, I concur with Jackie Shaw (2012) that because of the diversity of contextual factors the participatory video process needs to be re-invented anew for each engagement. That is to say, there cannot be one correct aim for the process or one correct way to do participatory video. Only by learning alongside research participants about their situated circumstances and experiences was it possible to understand them and to then tailor the process to their interests. Whilst unequal gender relationships are found in almost all societies, the precise structures of constraint and opportunity vary across time and place. The founding purpose of Asikana Network was to address the disadvantages

¹³¹ The research questions are detailed in Section 1.5

encountered by women in Zambia's male-dominated technology sector. This issue then became the point of departure for the participatory video and participatory action research process in which co-researchers set out to investigate and to analyse the situated constraints experienced, and the factors determining them, in order to inform Asikana's ongoing work.

Each iteration of film-making and critical dialogue produced new knowledge and deepened participants' shared understanding of the situated political, economic, social and cultural contingencies of the injustice that they experienced. Research participants produced evidence that women experienced gendered constraints of disadvantage and discrimination around place, time, voice and self-efficacy (Section 6.1). Critical dialogue around these experiences of gender inequality identified a range of social institutions implicated in the social (re)production of unfreedoms including: initiation rituals (Section 6.1.3) the family, school, religion and the workplace (Section 7.1). Upon further critical investigation participants located culture and mindset (Section 7.2) as the ideological basis of gender inequality, and men's interests as its material basis (Section 8.3.1) as well as producing evidence that intersecting power interests of gender, 'race'-ethnicity and class (Section 8.3.2) co-determine the unequal social relationships that they experience.

These findings lend weight to the argument that, whilst it is possible to argue that women in different contexts share a collective interest in tackling issues including violence against women and the unequal division of labour, at the same time specific situated contingencies also exist. As shown in the participatory videos, *Three Generations of Zambian Women*¹³², the situated practices of initiation ceremonies, arranged marriages and girl's education

¹³² Three Generations of Zambian Women film Lusaka <https://www.youtube.com/watch?v=GfqdneeWOz4>

varied across time and space. Women's agency succeeded in reforming gender practices inter-generationally in both contexts. Participatory video afforded an effective means for women to see their own culture from a new perspective and to deepen their critical understanding of the cultural and social construction of gender, as well as their own agency to remake it. By starting from the situated practical gender interests of participants and by facilitating participants' own investigation of the social institutions and structural root causes of experienced inequality, participants enhanced their critique of existing social arrangements as well as their sense of agency to co-produce change. Participants made evident their increased critical-agency by articulating critical theories of change and by voicing intent to act together to pursue change (Section 7.2.2). By building the Women's Rights App and by designing the Violence Against Women initiative, Asikana members translated their critical analysis into critical intent and critical action. When interviewed, research participants attributed their enhanced critical-agency to the various affordances of the participatory video process¹³³.

9.2.2 Personal Factors

Subsidiary research questions SRQ1.2 asked, *what personal factors influence outcomes, including sense of self-efficacy, communication and technical skills.*

Chapter 6. addressed this question most closely. The most significant obstacle to using film-making with novices as a means of research, and to build critical-agency, is that participants initially lack the technical skills of filming and editing and may feel inhibited

¹³³ As previously stated this is not a claim that Asikana member's had no prior intent or agency, only that their reported intent and action was increased, and that the increase was attributed to their participation.

about speaking to camera or directing a film. In order to accelerate participants' development of new self-efficacy, communication and technical skills, I deviated from 'standard'¹³⁴ participatory video practice design in three respects. Firstly, I used relatively cheap and simple cameras in place of the relatively complex professional grade cameras and boom microphones often recommended (Section 3.4.5). Secondly, facilitators were prohibited from touching cameras or editing keyboards so that participant expertise and self-efficacy was developed rapidly. Thirdly, rather than produce a single collective film, small groups each produced several short films in rapid iterative cycles to optimise what Bandura (1995) calls 'mastery experiences' in technical and communication skills, a process which was effective in boosting self-efficacy. Research participants reported significant increases in their self-efficacy as well as their technical and communication skills (Section 6.3) which they attributed to particular affordances of the participatory video process.

Participants have reason to value these new personal competencies, however they are not in themselves constitutive of critical-agency, as defined in this research. It is possible for people to acquire skills and increased self-efficacy without enhancing their ability to critique experienced injustice and to act to transform it. A potentially interesting area of further research could be the distinction between self-efficacy and 'critical self-efficacy', where self-efficacy is understood as a person's belief in their ability to act and accomplish agency goals, but where 'critical self-efficacy' is understood as a person's belief in their ability to act and accomplish critical-agency goals (those with transformist intent). This

¹³⁴ Although there is no single 'standard' participatory video practice in these three respects I deviated from the practices taught in participatory video training courses and 'how-to' manuals for participatory video (Shaw and Robertson, 1997; Lunch and Lunch, 2006; Benest, 2010).

distinction has an interesting analogy with Dreze and Sen's distinction between agency and critical-agency.

In this research the gender constraint of 'time poverty' limited women's ability to stay engaged in the participatory video process over extended periods of time (Section 6.1.2). Women participants enjoyed relatively little 'free time' compared to their male peers, a factor structured by the unequal gender division of domestic labour, as well as the 'double burden' of women's productive and reproductive roles. Most participants experienced challenges dedicating one week to the process due to this gender (dis)advantage, and it would be dubious ethically to require women to dedicate more time to voluntary pursuits given the 'double burden' already carried. Ways to overcome this challenge, through creative timetabling and/or resourcing, need to be found that enable women to further enhance their critical-agency and live lives that they have reason to value. Given these challenges, a profitable area for further research would be identifying the factors that would make it possible to secure women's participation in extended participatory video engagement.

9.2.3 Methodological Factors

Subsidiary research questions SRQ1.3 asked, *what methodological factors influence outcomes, specifically whether participatory action research or participatory video builds critical-agency.*

In this case study three levels of affordance were evidenced in participatory video: Firstly affordances of the equipment itself; secondly, affordances of participatory video processes

in general; and thirdly affordances specific to a 'critical participatory video' practice¹³⁵. The camera technology itself (technology-as-artefact) was found to afford the user permission to ask questions and to receive a more considered response, and the replay and screening functions afforded reflexivity (Section 6.3). The 'standard' participatory video processes (technology-as-process) had affordances for social learning, group deliberation and promoting collective voice (Section 6.3). These affordances are all valuable, but they do not necessarily produce outcomes which are 'critical' as defined in this research. The third level of affordances were derived from the 'critical participatory video' practices. Critical participatory video practices had affordances for enhancing critical-agency elements including critical dialogue, critical theorisation of change and critical voice (Section 8.1). The relationship between particular affordances of critical participatory video and the specific elements of critical-agency were discussed in Chapter 8 and are summarised in Table 10 above.

It is therefore possible to conclude that neither participatory action research nor participatory video, *in and of themselves*, necessarily build critical-agency. As Buskens' (2014) matrix of research methods and research intent (Table 3.) illustrates, participatory action research can, theoretically, be used by researchers with conformist, reformist or transformist intent. The findings in this thesis establish empirically that participatory video can enhance a range of conformist (Section 6.3), reformist (Section 7.3) and transformist outcomes (Section 8.3). The interpretive flexibility of the technology of participatory video means that it can equally well enhance *uncritical* agency or critical-agency. What this

¹³⁵ What constitutes a 'critical participatory video' practice is summarised below in the section 'Recommendations for a Critical Participatory Video practice.'

research suggests is that *critical* participatory video practices can produce critical-agency, which, in this instance, did lead to transformist intent and action. I suggest some elements of a critical practice of participatory video in section 9.2.5 below. More research is necessary to determine whether similar results occur in other contexts.

The role of the facilitator of participatory video processes was also foregrounded by this thesis. Whilst the camera/editing equipment (technology-as-artefact) has sufficient affordances and interpretive flexibility to make critical-agency a potential outcome of the process, these affordances are an insufficient condition to necessarily result in critical-agency. A participatory video process facilitated by someone without any knowledge of critical theory-practice, or without the critical *capacity or intent* to identify the underlying power interests determining disadvantage, is unlikely to result in critical-agency amongst participants. This suggests that the particular practices employed, as well as the facilitator's prior experience and intent, are factors in translating the potential affordances of participatory video into critical-agency for development. Put another way, (critical) outcomes are not technologically determined by the equipment, but rather by the (critical) capacity and intent of the process facilitation. As I argued in Section 8.1, the affordances of participatory video to enhance critical-agency for development lie not only in the actionable properties of the technology-as-artefact, but also in the affordances of the critical pedagogy of participatory video (technology-as-process), and in the human capacity and intent of the process facilitators and participants.

In this case study it was found that leaving the cameras with the group and training someone in the technical skills of film-making is necessary but insufficient to create

independent and sustainable capacity for 'critical participatory video'. It was found that it was relatively easy to pass on the capacity to deliver technical training in filming and editing, but relatively difficult to pass on the capacity to facilitate a critical investigation of structural power interests, as the latter presumes some grounding in critical (feminist) theory. This is crucial in the context of this research, as training in film-making alone can be considered to be 'conformist', whereas the process of critiquing the power interests structuring women's disadvantage is constitutive of critical-agency, and can inform 'transformist' intent. With hindsight I should have built more time into my research design to develop this capacity in co-facilitators from Asikana in addition to the technical, communication and self-efficacy benefits which they attributed to the process. Further research is necessary to substantiate this finding and to determine what would constitute 'sufficient' grounding in critical (feminist) theory on the part of a facilitator of critical participatory video practice.

9.2.4 Lessons Learnt

Having addressed the three subsidiary questions I now return to answer the principal research question (RQ1): *under what circumstances, if at all, does the use of participatory video enhance people's critical-agency to determine their own development.*

On the basis of these research findings, it is clear that Asikana members *were* able to use participatory video to enhance their critical-agency for development. On the question of the circumstances which need to pertain in order to realise the potential of participatory video to enhance critical-agency, I will first make some general remarks before presenting the circumstances as recommendations for 'critical participatory video' practice.

Findings from a single case study do not enable the generation of predictive rules about other participatory video use in other contexts. However I hope that presenting findings about the use of participatory video by Asikana Network will prove of use to other scholars and practitioners who can generate their own conclusions from the case study, and its applicability or otherwise to their own research and development practice settings.

In this research, participatory video was used to create a space for Asikana members to develop a more critical reading of their world that practically informed the organisation's action planning¹³⁶. However I do not claim that participatory video is either a magic bullet for development or that it is uniquely placed to generate participants' critical-agency for development. It is important to ask '*what is the relationship of participatory video to other ICT or learning approaches?*' Much of what was accomplished by Asikana Network with participatory video can be accomplished by other means, such as participatory rural appraisal (Jone and SPEECH, 2001), participatory photography (Powers, Freedman and Pitner, 2012), participatory story-telling (Taachi, 2009), or participatory theatre (Boal, 1993). Whilst it is beyond the scope of this thesis to make a comparative analysis of these diverse participatory practices, what is claimed here is that this research demonstrated that participatory video has specific affordances as a technology for development (Table 10) that make it particularly productive in enhancing critical-agency for development. These affordances of participatory video include the ability to rewind, review and re-edit in order achieve a desired articulation of critical voice. It would have made a difference to use other

¹³⁶ This should not be interpreted as a claim that there was no critical-agency informing Asikana's planning prior to this engagement, only that the participatory video video enhanced it.

methods because whilst other methods will have other benefits (which may be complementary) distinct affordances are readily available through participatory video. Participatory video evidenced affordances that allowed women to turn the cameras on men and effectively challenge existing unequal perceptions of the role of women and men in technology. Another example is the way that making the film, “*Three Generations of Zambian Women*” allowed film-makers to investigate and to reflect critically on their internalised concepts of culture as fixed. Through film-making they were able to realise their own agency to change it. The claims being made here are modest, specific and contextual. Any discrete participatory video workshop is insufficient to produce sustained structural change. One short participatory video engagement cannot overcome the effect of ongoing submersion in dominant culture and unequal social relations. It is therefore recommended for use as one element of a broader, longer-term strategy to build the collective agency and political capabilities necessary to produce social transformation.

Having made those preliminary remarks I will now make some concrete recommendations for critical participatory video practice.

9.2.5 Recommendations for practice of Critical Participatory Video

In order to operationalise the lessons learnt in this research as a critical practice of participatory video designed to enhance critical-agency I recommend that the process:

- (a) is facilitated by people with critical intent and capacity
- (b) starts from the personal experiences of injustice and practical needs of the group

- (c) enables group members to excavate the structural root causes of experienced injustice
- (d) involves critical dialogue about power interests and participants' own interests
- (e) asks what action participants might take to contribute to desired change
- (f) enables participation of those otherwise excluded e.g. those with 'time poverty'
- (g) is integrated as one element in broader, long-term processes of development
- (h) builds the capacity of the host organisation to use participatory video independently
- (i) evaluates the growth in critical-agency as a development outcome

These conditions are scalar rather than binary; that is to say that the participatory video practice adopted in any instance could always been more or less critical, the facilitator could always have had more or less experience/capacity/intent, and the participants could always have had more or less time/interest/capacity.

In this research it proved possible to appropriate and adapt participatory video technology for the task of enhancing critical-agency within Asikana Network. It was found that the technology of participatory video can have conformist, reformist or transformist outcomes. This raises the issue of the interpretive flexibility of other technology in ICT4D. Can any technology, in principle, be appropriated for conformist, reformist or transformist ICT4D. Because of technology's interpretive flexibility I argue that the matrix illustrated in Table 6. cannot be used to plot an essentialist typology of ICT4D technologies. The location of an ICT4D technology in the matrix can only be determined by a situated analysis of its actual application. The capacity and intent of the people involved in an initiative is always, in principle, capable of 'moving' it to an adjacent space. Other researchers and practitioners may find the matrix to be useful, as I did, for thinking through ICT4D initiatives, and for

aligning their development intent with the methods/practices that they select to use in their ICT4D initiatives. Moreover it might serve as a useful tool, and conceptual language, for all stakeholders to discuss the practices and intent of any ICT4D initiatives during the planning, implementation and evaluation phases of the project cycle.

9.2.6 Constituent Elements of Critical-Agency

The second of the two main research questions (RQ2) asked, *does participatory video process enhance critical-agency, evidenced as the ability to:*

SRQ2.1 *reflect critically upon the status-quo*

SRQ2.2 **engage** critically with issues of structural injustice

SRQ2.3 **dialogically analyse** experienced injustice

SRQ2.4 form joint **intent** to act for valued change

SRQ2.5 **voice** dissent on the above

SRQ2.6 *act in pursuit of valued change*

The short answer to this question is yes, in the case of Asikana Networks' use of participatory video, member's critical-agency was enhanced to varying degrees. However the constitutive elements of critical-agency evidenced in the data were empirically different from those I had theorised deductively during the research design. Of the original six potential elements of critical-agency that emerged from the literature review only five were evident in the research data. During data coding there was little evidence of the originally envisaged element (SRQ2.2) of 'engagement' and such evidence that existed was insufficiently distinct from the 'dialogical' element. As a result the 'engagement' element

was subsumed within dialogue. However the emergent element of 'theories of change' was added. What also emerged from the data analysis was increased clarity about what distinguished agency from *critical*-agency. The latter addressed issues of strategic (gender) interests, structural power interests, and was transformist in Buskens' (2014, 2015) terms. Moreover, this distinction helped further clarify exactly what distinguished the constituent elements of critical-agency, that is to say, what differentiates voice from *critical*-voice and dialogue from *critical*-dialogue etc., being that they must each extend to this depth of analysis of structural power interests. This analytical clarity informed a revised definition of critical-agency I produced as “*the ability to collectively critique the structural power interests determining the (dis)advantage experienced by group members in order to inform their collective action to transform the situation*”. The six constituent elements of critical-agency evidenced were illustrated in Chapter 8 (Figure 21), and are:

- | | |
|------------------------------------|---|
| 1. Critical Reflection | on experienced (dis)advantage and its roots causes |
| 2. Critical Dialogue | about structural interests determining (dis)advantage |
| 3. Critical Theory-building | on causes of (dis)advantage and means of emancipation |
| 4. Critical Intent | forming shared commitment for transformist action |
| 5. Critical Voice | denouncing injustice and announcing critical intent |
| 6. Critical Action | acting with others to produce transformist change |

Below I have reproduced Figure 21 showing the constituent elements of critical-agency.

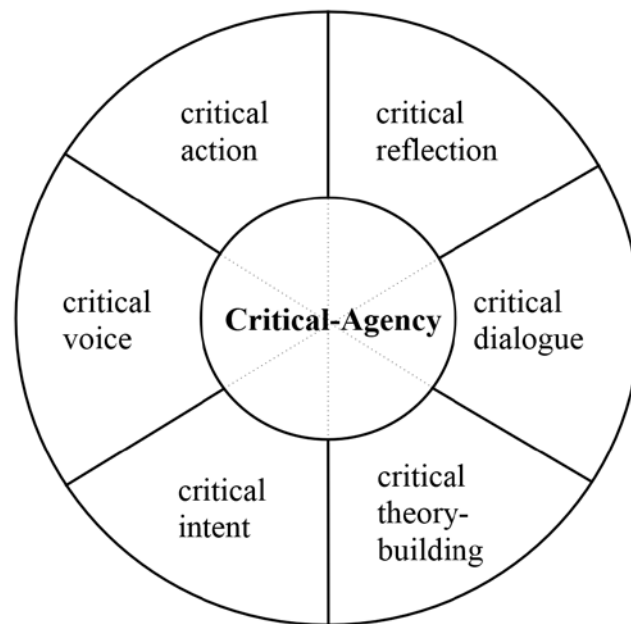


Figure 24: Constituent Elements of Critical-Agency (source author)

At the risk of over-simplification, we might consider those elements on the left-hand side of the diagram (Figure 24) to be largely concerned with action (intention, speech acts and collective action) whilst those elements on the right-hand side of the diagram are largely concerned with critique (dialogue, deliberation and theory-building).

Although it is tempting to add arrows to Figure 24 and to present the constituent elements of critical-agency as occurring sequentially with, for example, intent *leading to* voice, and voice *leading to* action I have avoided imputing this. My analysis is that the logic is not diminished if the process happens in the reverse direction. Critical-agency might be enhanced, rather than diminished, if a process was to move between the elements non-sequentially, or to engage in more than one element in parallel. In fact Freire (1970) argued

persuasively that both 'reflection on action' and 'action on reflection' are equally valuable. We might likewise say that critical-agency is as much about critique on agency, as it is about agency based on critique.

It is not my claim that critical-agency only exists if all six elements are maximally present. Critical-agency can be considered to be more or less critical to the extent that each of these elements is evident, and initiatives may be considered to have 'transformatory potential' to the extent that they have the capacity for, “*transforming gender relations and the structures of subordination*” (Young, 1993; 156). My use of the word critical in this thesis does however imply that the depth of analysis, and the object of social action, must extend to the level of the structural power interests that give rise to, and support, unequal gender relations. The next section reflects back on the theory used in this thesis in the light of research findings.

9.3 Reflections on Theory

It is worth emphasising here that what, I argue, distinguishes critical dialogue from dialogue, and critical theory-building from theory-building, is that the analysis extends to a consideration of structural power interests and that the resulting critique informs social action to transform structural injustice. Looking back through this conceptual lens to compare Sen's capability approach with critical theories, it is possible to see fundamental differences. Whilst both aim at an agency-based practice of human development rooted in social justice, and both see critical-agency as necessary to addressing adaptive preferences or internalised oppression, they have a fundamentally different depth of analysis.

Sen's capability approach provides this thesis with its normative framing of human development as an agency-based process in which disadvantaged people are enabled to determine and pursue their personal well-being and wider conception of the good. Sen's approach has advanced development economics and development evaluation in important respects. Of note in the context of this research, the capability approach has broadened the scope of what counts as development and emphasised the importance of agency and freedoms in addition to income and well-being. Sen's more recent (2002, 2013) turn to critical-agency is also particularly welcome as it indicates a practical means through which people can enhance their ability to critique the circumstances that determine their disadvantage. Dreze and Sen see critical-agency as important in tackling inequality of any kind and pivotal to questioning the norms and values that co-determine unequal gender relations. However Sen has not systematically analysed the structural power interests that give rise to and support those norms and values. I argue that this lack of critical depth in Sen's analysis necessarily limits his prescriptions for development action.

Sen's capability approach, as currently conceived, is grounded in a liberal individualism that doesn't challenge currently dominant forms of economic and political arrangement, which, I argue, should not be exempt from critique as potential contributors to poverty, inequality and injustice. Sen's approach leaves these structural power interests intact, and deprived people no wiser about how these power interests determine their subjectivities and material disadvantage. As a consequence of this lack of structural analysis, I would argue that any social action informed solely by Sen's capability approach is liable to produce development activities with reformist rather than transformist potential¹³⁷.

¹³⁷ Scholars such as Zheng and Stahl (2011) have sought to resolve this limitation of the capability approach

By comparison, the critical feminist and critical pedagogy theories relied on in this thesis are built on material analysis and ideology critique that extend to the level of power interests. This results in a more robust conception of critical-agency, which extends critique to the structural root causes that determine (dis)advantage, and can therefore inform ICT4D initiatives that target the root causes as well as symptoms of injustice. As a result the theories of change generated by such analysis may contain the 'transformatory potential' that Sen's capability approach lacks. Consequently, I argue that critical theory provides a more effective guide for development action. This is particularly true when development action aims at addressing the kind of intersectional discrimination and disadvantage rooted in over-lapping power interests, such as those which, in this research, were evident in the lives of the women of Asikana Network.

On a separate but related issue of theoretical reflection, this thesis has characterised some of Asikana's uses of ICT4D, such as teaching basic computer skills, as 'conformist' in the sense that success in producing new ICT skills, in and of itself, cannot overcome unequal gender relations (Chapter 6). Put another way, although some individual women will be personally advantaged, male domination of the ICT sector in Zambia is not directly challenged and will remain entirely intact. Research findings presented here suggest that other uses of ICT4D by Asikana, such as their media campaigning, do have the 'reformist' potential to improve unequal gender relations, whilst maintaining that only those uses of ICT4D that include the 'critical intent' to tackle patriarchal power relations hold the 'transformist' potential to overcome male domination. Whilst I hold this to be true when

by using it in combination with critical theories, as I have done in this research.

analysing individual ICT4D initiatives, or individual elements of ICT4D initiatives, when the wider context is examined, the analysis will also need to change. Just as Longwe (1991) and Young (1993) argued correctly that addressing women's practical needs can be an essential part of addressing their strategic gender interests, so too can conformist and reformist activities be integral components of a broader strategy for transformation. The basic programming skills that Asikana teaches (conformist when considered in isolation) and Asikana's media work (reformist when considered in isolation) could serve as necessary (but insufficient) building blocks within a strategic programme which has transformist intent. Young's (1993; 156) criteria of whether the activities had the capacity for, “*transforming gender relations and the structures of subordination*” could be one means to evaluate the 'transformatory potential' of ICT4D programmes.

A similar reflection can be made about the self-efficacy developed by Asikana members. It is reasonable to ask whether these changes in self-perception are really ‘conformist’ as I have suggested that they were in this case study. Other researchers, including Jones and SPEECH (2001) in their research in India have identified women’s increased confidence as a valuable outcome, which was contributory to women acting collectively, and to them effectively challenging gender relations. In my research I also argue that increased confidence and sense of self-efficacy – like new technical skills - is an outcome which women have reason to value. I conclude that increased self-efficacy is a necessary but insufficient condition of self-actualised social change. However I am making what I consider to be an important theoretical point by insisting that, in and of itself, a change in self-perception may or may not lead to action, and that such action may or may not be intent on transformatory social change. A self-confident person may be inactive or act

confidently in a way which is damaging to their own best interests. It is for this reason that I argue that it is important that development interventions set out to develop not just individual's confidence but their *critical-agency* to identify the root causes of the (dis)advantage that they experience.

In my final analysis, when considered in its entirety, I conclude that Asikana's programme does have 'transformatory potential', their published principles document their *transformist intent* to tackle gender equality, and their activities include *emancipatory practices*, such as critical participatory video that was productive of critical-agency, as well as initiatives with 'transformist' intent such as the Women's Rights App.

9.4 Reflections on Practice

Reflecting back on this research I see reasons to consider further the relationship between intent and outcome in critical participatory processes. Whilst it is reasonable to argue that critically conscious intent increases the likelihood of transformatory outcomes, there is no direct relationship between intent and outcomes. This is not only because of the issue of unintended outcomes but also due to the obdurancy of structural power interests. Intent to end patriarchy is insufficient to realise that outcome. It is for this reason that no claim is made that participatory video alone can transform unequal structural relations. Instead I argue in Section 9.2.5 that participatory video should be integrated as one element in a broader, long-term process of action for social change. As well as the disconnect between researcher (or practitioner) *intent* and *outcomes*, there may also be a disconnect between the intended or espoused *theory* of change and the actual *practice* of a researcher or practitioner.

When I reflect back on this research I recognise the need to avoid conflation of intent and outcomes, and of theory and practice. Future research on critical participatory processes could productively focus on such alignments and disconnects.

This research was exploratory and the finding contextual. Further research is necessary to determine whether the categories of conformist, reformist and transformist or the matrix of intent and practice in ICT4D have value in the analysis of other case studies or fields of practice. With hindsight, whilst this categorisation proved to be a useful conceptual tool for me to work through the research data, it now seems obvious that it would have been beneficial to use the matrix in a participatory workshop with Asikana members in order to learn from them where they would locate their own intent and activities within the matrix. Using the Matrix of ICT4D Intent and Practices at various points in the life-cycle of other technology and development initiatives could be a fruitful area for further research. In a related point, whilst this case study focused on unequal gender relations, it is interesting to reflect on how this research relates to other social groups which experience oppression, for example along lines of 'race'-ethnicity or class-caste. Although none of my interview or focus group questions mentioned ethnicity or class, these issues were raised by research participants as co-determinants of the (dis)advantage that they experienced. So although the theoretical framework and research design employed in this case study were tailored specifically to research unequal *gender* relations, there is reason to think that they might be modified and repurposed for research focused on unequal *race* relations, unequal *class* relations or the intersectionality thereof.

As discussed in Section 6.1.2, the main limitation on this research was the restricted

amount of time that it was possible to spend with each participant. Most participants were only able to attend one week of workshops due to gendered constraints on time related to the division of domestic labour. This limited the extent to which they could develop their videography skills and how far it was possible to enhance critical-agency. Notwithstanding the ethical issues discussed in Section 9.2.2, in future I would seek to identify with participants and stakeholders creative ways to secure extended time in order to take both processes further. In a related point I would also modify my approach to allow more time with co-facilitators to enhance their experience and ability to lead the critical dialogue workshops that enable participants to identify structural power interests.

In using inexpensive cameras in this research I introduced limitations to the quality of production values that it was possible to attain in the resulting films. As the development objective was people's critical-agency rather than communicating a message to distant decision-makers this was not a major problem. The cameras were high resolution so the image quality was good but being limited to the on-camera microphone presented challenges securing adequate sound quality. I would modify the approach in future to use cameras that were able to accommodate off-camera microphones and headphones to improve sound quality.

9.5 Further Research

In terms of directions for future research this thesis has pointed to a number of potential areas with respect to gender, participatory video, critical-agency and development theory more widely. With respect to gender, in addition to the need for research into how to make

it possible for women to participate in ICT4D initiatives on an equitable basis with men (Sections 6.1.2. and 9.2.2) further research into understanding why and how some women are able to effectively resist disadvantage and prosper in Zambia's male-dominated ICT sector (Section 7.1.1) would potentially be valuable. Such research has the benefit of not focusing on women as victims, but the potential drawback of learning to cope with disadvantage at the expense of learning how to end disadvantage.

This research made some innovations in participatory video practice by designing short iterative cycles of small group filming and making participants responsible for all aspects of filming and editing, with each iteration introducing new technical skills and digging deeper in search of the root causes of structural injustice. More research needs to be done to investigate and develop these techniques in other settings to assess their wider applicability and to test the validity of the recommendations made in Section 9.2.5. Identifying what comprises 'sufficient' capacity-building for 'local' participants in order to facilitate critical investigation of power interests is another potential area for further research.

With respect to critical-agency this research illuminates two main directions in which further research would be productive. Firstly there is a need to establish whether the same elements of critical-agency identified in the Asikana case study (Section 8.1) are evident in other cases. Secondly more research needs to be done to understand the relationship of elements to each other (Section 8.1). Whether, for example, critical-dialogue is a necessary prelude to critical-theorisation, or critical voice is a necessary precursor to critical intent, remains an open question, as does the relationship of self-efficacy or 'critical self-efficacy'

to critical-agency (see Section 6.1.4).

Finally, in respect of wider development theory, I argue that in the capability approach, in addition to the focus on capabilities and functioning, more research needs to focus, as this research has, on the space between freedoms and unfreedoms - delineated by the thick red line in my re-drawing of Sen's Conceptual Ontology (Figure 3). The Matrix of ICT4D Intent and Practice has proposed a framework for thinking through and aligning the development intent and operating practices of ICT4D initiatives. Further research is necessary to establish whether the distinctions that it makes also prove to be useful in other ICT4D research or project initiatives. Finally this research has shown the importance of not just gender as an important dimension of inequality in ICT4D, but also intersectionality of gender, 'race', and class. The failure to ask sufficient questions about dimensions of inequality other than gender was a limitation of this research. Intersectionality in ICT4D is likely to prove to be an important area of further research.

9.6 Towards a Critical Theory-Practice of ICT4D

Finally, I would like to make some remarks about the wider field of ICT4D, on the basis of learning from this research, in the form of some tentative recommendations towards operationalising a critical theory-practice of ICT4D or what Tim Unwin (2009: 63) called '*a practical framework for a critically-aware ICT4D practice*'.

If we take seriously Dreze and Sen's (2012: 233) claim that "*critical agency is important in combating inequality of every kind*", and we wish to use ICT4D to combat global

inequalities structured as they are, along intersecting lines of gender, 'race'-ethnicity and class-caste, then logically, ICT4D initiatives must enhance critical-agency. Once we accept that critical-agency formation should be incorporated into ICT4D initiatives, it also follows that the monitoring and evaluation of ICT4D initiatives should incorporate an assessment of critical-agency. I recommend that enhancing critical-agency is incorporated into ICT4D practice and that evaluating critical-agency is incorporated into monitoring and evaluation of ICT4D to ensure that projects leave participants better able to determine their own development interests and to independently pursue them. In this research short iterative cycles of practice were followed by interviews and focus groups with all participants to monitor whether critical-agency gains were evident and which affordances of participatory video, and other factors, research participants felt the gains were attributable to. This enabled modification of practice to reflect iterative feedback. In programmatic engagements where progress is measured across years rather than weeks, I recommend building in regular monitoring and evaluation to serve this function.

This research has demonstrated empirically that participatory video can be used to produce outcomes that are conformist, reformist or transformist. The interpretive flexibility of technology in general suggests that other technologies of ICT4D can also be appropriated for conformist, reformist or transformist outcomes. This highlights the importance of human capacity and intent in ICT4D, and the need to invest in building human capacity and intent as well as investing in technical developments. However, just as Amartya Sen has shown that not all agency is good agency, not all capacity and not all intent are good. An agency-based process of human development rooted in social justice requires that previously disadvantaged people are able to judge *for themselves* what power interests

determine their disadvantage and what their own interests are. To enable this capacity to be built, a critical theory-practice of ICT4D should focus on three things:

(a) **a human-centred rather than a techno-centred ICT4D**

- start with people's self-analysis of their circumstances, institutions and interests
- disadvantaged people must be the principal authors, architects and arbiters of ICT4D

(b) **build human capacity and intent**

- build critical-agency and self-efficacy, as well as technical skills
- enable people to determine their own theory of change and projects to reflect them
- aim for self-determination and self-actualisation

(c) **an emancipatory practice coupled with transformist intent**

- agency-based process enabling people to identify and remove unfreedoms
- process aims at tackling root causes not alleviating symptoms
- use ICT4D matrix to align practices with development intent

Researchers and practitioners need to be at least as reflexive as participants about how their own submersion in dominant interests affects their subjectivities and behaviours. This research suggests (Chapter 8) that it is not just disadvantaged people whose preferences are adaptive or who have internalised dominant ideas. No one is immune from the powerful influence of culture, socialisation and ideology. We all live in unequal societies where power interests structure subjectivities and material (dis)advantage along dimensions that include gender, 'race' and class. This creates the danger that any actor may unwittingly

(re)produce inequality in ICT4D. Unless, or to the extent that researchers, practitioners and participants are critically conscious of these determining forces, ICT4D initiatives run the danger of reinforcing men's interests over women's or reproducing other dimensions of (dis)advantage.

Raising levels of consciousness on the part of all ICT4D stakeholders about contextual power relations can be one important means to help guard against ICT4D initiatives conforming to, and reproducing, existing patterns of disadvantage. There is a great deal of practical experience about how this can be accomplished from the many hundreds of international development agencies who draw on critical pedagogy in their practical work (Riddell, 2001; Duffy, 2008; Beardon, 2004).

A critical theory-practice of ICT4D that enhances the critical-agency of people facing structural (dis)advantage to transform their circumstances is urgently needed. If ICT4D is to go beyond enabling people to cope with injustice and increase their ability to remove it then ICT4D must make it possible to identify and tackle the root causes of inequality and not just the symptoms. A deeper understanding of the intersecting power interests of gender, 'race' and class that structure injustice is necessary to make transformational change possible. This research has shown that ICTs can be used as tools that enable disadvantaged people to identify critique and overcome the structural power interests that determine their situation. Another ICT4D is possible.

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Appendices:

Appendix 1. Interview Questions Before PV

No.	Interview Questions Pre-PV	RQ
	As I explained earlier, the purpose of this interview is to learn from your experience and to produce new knowledge and understanding about women's experiences in Zambia. I am a full-time university student and I would like to write about what is learned from these interviews in documents that will be part of my PhD assessment and which could be presented at conferences and could be published. However I will not use your real name so anything that you say to me is confidential.	
1	Do I have your consent to record this interview and to use your answers in my research and publications? Thank you.	n/a
	<i>The questions are in three sections. This first section is about you, your background and why you joined this group.</i>	
2	Please tell me where you are from and where you went to school.	n/a
3	Which subjects did you most enjoy at school?	n/a
4	At school were there subjects that boys were encouraged to study and <i>different</i> subjects that girls were encouraged to study? Why do you think that was?	1.4
5	How have you been occupied since your studies ended?	n/a
6	What are your hopes and ambitions for your future? Have you received encouragement / discouragement for these aspirations? Why do you think that was?	1.4
7	What do you value most in life? Why do you value that most?	1.8
8	Why did you become involved with this group?	n/a
9	How would you describe the purpose of this group?	n/a
	<i>This second group of questions are about the situation of women in</i>	

	<i>Zambia.</i>	
10	Are women and men equally represented in senior positions in Zambia? Why do you think this is?	1.1 1.3
11	Are women and men equally represented in technology roles in Zambia? Why do you think this is?	1.1 1.3
12	Do women and men enjoy equal opportunities in Zambia?	1.2
13	What opportunities or freedoms do women have compared to men in Zambia?	1.4
14	What obstacles <i>or constraints</i> have you experienced as a woman in Zambia?	1.4
15	Why do you think that these situation exist?	1.3
16	Who benefits from this situation?	1.2
17	How does it make you feel that this situation exists?	1.2
	<i>This third and final group of questions about the possibilities for changing the situation of women in Zambia.</i>	
18	Do you think that it is possible to improve the situation of women in Zambia? If negative, why? If positive, how?	1.3
19	In relation to the situation of women in Zambia, what are the changes that you would most value? Why do you value that change most?	1.8 1.3
20	What do you think would need to be done to bring about that change?	1.3
21	Who do you think could bring about that change? How?	1.3
22	Why do you think that their role is important?	1.3
23	Why do you think that this change has not already happened?	1.4
24	Do you think that ordinary people could bring about the change if they worked together? Why? Why not?	1.3 1.4

25	Do you feel that there is anything that you can do personally to bring about the changes that you most value? Why? Why not?	1.3 1.4
26	Have you ever previously publicly spoken out about the need for this change? Why?	1.7
27	Have you ever previously taken action to try to change this situation?	1.9
28	Would you like to play a role in bringing about the change? Why? Why not?	1.9
29	I have finished my questions. Is there anything else that you would like to say about the issues that we have been discussing?	n/a
30	Do you have any feedback about the interview process? Why it too long? Tiring? Were they questions clear? Are there different questions that I should ask to get good answers on this issue?	n/a
	<i>I am really grateful to you. I really appreciate the time you have given to me, and the opportunity to learn from your experience. Thank you very much.</i>	

Appendix 2. Interview Guide After PV

No.	Interview Guide Post-PV	RQ
	<p>As I explained earlier, the purpose of this interview is to learn from your experience and to produce new knowledge and understanding about women's experiences in Zambia. `</p> <p>Participation in this interview is voluntary. You are free to not answer any question or to end the interview at any point.</p> <p>I am a full-time university student and I would like to write about what is learned from these interviews in documents that will be part of my PhD assessment and which could presented at conferences and could be published. However I will not use your real name - so anything that I do use will be anonymised.</p>	
1	<p>Do I have your consent to record this interview and to use your answers in my research and publications? Thank you.</p>	
	<p><i>I have organised the questions into three sections.</i> <i>This first section is about your experience of the film-making workshops.</i></p>	
2	<p>Had you ever used a video camera or edited a film before taking part in the film production workshops?</p>	<p>Warm-up Qs</p>
5	<p>Was there any difference between how you expected the workshop to be when you signed up for it <i>and</i> how it actually was in practice?</p>	

	(prompt=what differences?)	
6	How did it make you feel watching the films that you made? (prompt=why?)	
7	What difference has taking part in the workshop made to you? (prompt=what do you think caused that change? why?)	
8	Do you feel any other change in yourself as a result of the workshop experience? (prompt=why do you think that is?)	
9	What has been the most significant change as a result of the workshop? (prompt=why?)	
10	Was there a particular activity or part of the workshop that stands out as important to you in contributed to these changes? (prompt=why?)	
	<p><i>This next section of questions is not about the technical skills of film-making.</i></p> <p><i>This section is more about the discussions that took place in the workshops about the situation of women in Zambian.</i></p>	
11	During the workshop we talked often about issues faced by women in Zambia. Before this workshop had you ever spoken - in front of people you did not	1.1 1.5 RQ2

	know - about the position of women in Zambia? (prompt=why is that do you think?)	
12	How did you feel in the workshop discussing the situation of women in Zambia? (prompt=why?)	1.5 1.7
13	Has your knowledge about the situation of women changed at all as a result of the workshop discussions? (prompt=in what way?)	1.1 1.2 1.4
14	What are the most significant causes of women's disadvantaged position in Zambia? (prompt=why are these the most important?)	.2 1.3 1.6
15	What needs to be done to improve the situation of women? Did your thinking about what should be done to change the situation for women change at all as a result of taking part in the workshop?	1.3 1.8
16	Have you thought more about the situation of women in Zambia since the workshops? (prompt= why?)	1.2
17	Since the workshop, have you discussed the situation of women in Zambia, with anybody who was not a workshop participant? (prompt=why?)	1.5 1.6 1.7 RQ2 RQ3
18	Since the workshop, have you taken part in other activities concerning the position of women in Zambia? (prompt=why?)	1.9

19	<p>Would you like to take part in future activities to improve the situation of women in Zambia? (prompt-what has made you want to take part?)</p>	<p>1.6 1.8 1.9</p>
20	<p>What factors prevent you from taking part in more activities? (prompt=why?)</p> <p>Some women signed up <i>and</i> didn't attend or dropped out. What factors do you think inhibited them from attending or completing the workshop?</p>	RQ3
	<p><i>In this third and final section of questions I just want to try to dig a little deeper to try to understand exactly what is responsible for the changes that you describe.</i></p>	
21	<p>Earlier you said that since the workshop (your understanding about the situation of women in Zambia) (and your desire to improve that situation) has increased.</p> <p>When you think back to the workshop was there a particular moment or thing that you think is important in causing a change in your understanding about the situation of women in Zambia?</p>	RQ2
22	<p>I want to try to understand exactly which aspect of the workshop you feel contributed most towards bringing about these changes. Here is a list of some parts of the workshop process.</p>	RQ2

	<p>i) imagining film and producing storyboard</p> <p>ii) group discussion about women's issues</p> <p>iii) conducting interviews and other filming</p> <p>iv) editing footage: reviewing film – revising film – re-editing</p> <p>v) screening finished film and discussing with group</p> <p>vi) being interviewed or taking part in focus-group</p> <p>Which of these things do you feel was most important in increasing your understanding the situation of women in Zambia and your desire to improve their situation? (prompt=why?)</p>	
23	Are there any other factors that you think contributed to change not in my list?	RQ2
24	To what extent do you feel that your wider membership of Asikana Network contributed to wards this change?	RQ2
25	To what extent do you think that the role played by the workshop facilitator was influential in bringing about this change?	RQ2
26	Is there anything about the workshop that you wish had been done any differently? (prompt=why?)	
27	I have finished my questions. Is there anything else that you would like to say about the issues that we have been discussing.	
28	Is there anything that you would like to ask me?	

Thank you for your time.

I have learnt a lot from listening to you. I was really interesting.

Thank you.

Appendix 3. Interview Guide - Men

No.	Interview Guide BongoHive Men	RQ
	<p>As I explained earlier, the purpose of this interview is to learn from your experience and to produce new knowledge and understanding about women's experiences in Zambia.</p> <p>Participation in this interview is voluntary. You are free to not answer any question or to end the interview at any point.</p> <p>I am a full-time university student and I would like to write about what is learned from these interviews in documents that will be part of my PhD assessment and which could be presented at conferences and could be published. However I will not use your real name - so anything that I do use will be anonymised.</p>	
1	<p>Do I have your consent to record this interview and to use your answers in my research and publications? Thank you.</p>	n/a
	<p><i>The questions are in three sections. This first section is about you, your background and why you joined this group.</i></p>	
2	<p>Please tell me where you are from and where you went to school.</p>	n/a
3	<p>Which subjects did you most enjoy at school?</p>	n/a
4	<p>At school were there subjects that boys were encouraged to study and <i>different</i> subjects that girls were encouraged to study? Why do you think that was?</p>	1.4
5	<p>How have you been occupied since your studies ended?</p>	n/a
6	<p>What are your hopes and ambitions for your future? Have you received encouragement / discouragement for these aspirations? Why do you think that was?</p>	1.4

7	What do you value most in life? Why do you value that most?	1.8
8	Why did you become involved with this group?	n/a
9	How would you describe the purpose of this group?	n/a
	<i>This second group of questions are about the situation of women in Zambia.</i>	
10	Are women and men equally represented in senior positions in Zambia? What is the situation? Why do you think this is?	1.1 1.3
11	Are women and men equally represented in technology positions in Zambia? Why do you think this is?	1.1 1.3
12	If you had a daughter would you want her to pursue a career in IT? (prompt: why?)	1.2
	If you had a wife/partner would you want her to pursue a career in IT? (prompt: why?)	
13	What obstacles do you think that girls and women face if they pursue a career in technology? (prompt: why?)	1.4
14	Why do you think that this situation exists?	1.3
15	Who benefits from this situation?	1.2
16	How does it make you feel that this situation exists?	1.2
17	<i>Based on your observations have the activities of Asikana Network had a beneficial effect? If yes, for whom? If yes, in what way?</i>	
17a	<i>Which particular activities seem to have been the most beneficial? Why do you think that activity has been particularly beneficial?</i>	
	<i>Have you been interviewed at all by the Asikana film-makers? Did that experience make you feel or think any differently about the situation of women in Zambia or what needs to be done to improve the situation? How/Why?</i>	

	<i>This third and final group of questions about the possibilities for changing the situation of women in technology in Zambia.</i>	
18	Do you think that it is possible to improve this situation for women in Zambia? If negative, why? If positive, how?	
19	In relation to the situation of women in Zambia, what changes would you most like to see? Why do you value that change most?	1.8 1.3
20	What do you think would need to be done to bring about that change?	1.3
21	Who do you think could bring about that change? How?	1.3
22	Why do you think that their role is important?	1.3
23	Why do you think that this change has not already happened?	1.4
24	Do you think that ordinary people could bring about the change if they worked together? Why? Why not?	1.3 1.4
25	Do you feel that there is anything that you can do personally to bring about the changes that you most value? Why? Why not?	1.3 1.4
26	Have you ever previously publicly spoken out about the need for this change? Why?	1.7
27	Have you ever previously taken action to try to change this situation?	1.9
28	Would you like to play a role in bringing about the change? Why? Why not?	1.9
29		n/a
30	I have finished my questions. Is there anything else that you would like to say about the issues that we have been discussing	n/a

	<p><i>I am really grateful to you. I really appreciate the time you have given to me, and the opportunity to learn from your experience. Thank you very much.</i></p>	

Appendix 4. Focus Group Guide

No.	Focus Group Guide #3	RQ
	<p><i>Thank you everyone for being here. First of all I would like to explain the purpose of this focus group.</i></p> <p><i>As you know Asikana Network exists to provide training, mentoring and other support to young women entering the ICT sector in Zambia. The purpose of this focus-group is to have a focused discussion about the challenges faced by young women in Zambia's technology sector and to look at some of the strategies and techniques that they have developed to survive and thrive in what is still a male-dominated sector. In the video-making workshops we have been researching and making films on these subjects and we want to use this time to day to focus in on what you have learnt so far and also to help determine which subjects we should concentrate as we continue to move forward. Our research is intended to contribute to building a deeper understanding the situation of women in tech in Zambia and to enabling Asikana Network to continue to effectively support her members.</i></p> <p><i>Taking part in this focus group is not compulsory. You are free not to take part; you are free to not answer any question; you are free to leave at any time. I will not use anyone's real names so any references will be anonymous.</i></p> <p><i>I am a full-time student and I would like to use information collected from this focus group in my PhD submission. It may also be used in any related publications or presentations. So my first question is:</i></p>	

1	<p>Do I have your consent to record this focus-group and to use your answers in my research and publications? (Just to check <i>can you please raise your hand if I have your consent</i>). Thank you.</p>	
2	<p>The first question for discussion is, “Why are there less women than men in the ICT sector in Zambia?”</p> <p>Can you please discuss that with the person sitting next to you for a minute of two.</p> <p>Listing Exercise: OK now let's see what you have come up with. We are going to produce a shared list of reasons. Please write only one reasons on each Post-IT note. Write three of four reasons each and then please stick them on the wall here. If you think your reasons is similar to somebody else's please stick them on top of each other - or next to each other.</p> <p>Root Causes Exercise: Now the next step is for each post-it note - ask yourselves why does THIS situation exist? Or what causes THIS to happen? Use blank post-it notes to write the answer on if the cause is not already written on another post-it note. Of course something can have more than one cause. The exercise is to try to to build chains of causes. We are searching for the root causes of these problems. If one post-it note is the cause put the cause underneath and ask yourself “but why does THAT situation exist – what causes THAT? Dig deeper and deeper to find the real deep root causes.</p> <p><i>N.B. Keep excavating as appropriate with further “why” questions to unearth structural constraints/opportunities.</i></p> <p>Critical Reflection:</p>	

	<p>1. Why do you think these are the most important reasons that there are less women than men in technology roles in Zambia? (prompt=why do you think that is the case)</p> <p>2. Why do you think that these obstacles exist? (prompt=but why is that the case?)</p> <p>3. Who is benefiting? Whose interests are being served/ignored by this situation?</p>	
3	<p>The next question that I want us to look at is, (in relation to women in tech) “What are the solutions to the challenges that young women face in Zambia's technology sector?”</p> <p>Again first discuss this with the person sitting next to you for two minutes.</p> <p>Listing Exercise: OK please write one of your reasons on each Post-IT note and build a list on the wall there. Again cluster any similar reasons together. (why are these important?) why?</p>	
4	<p>Problem Tree / Solution Tree:</p> <p>The next exercise is called the problem tree.</p> <p>We are going to divide into two groups (divide participants).</p> <p>One group is going to draw a Problem Tree. The tree will have deep roots that illustrate the root causes of the problems facing women in ICT and the tree will have many branches that illustrate the outcomes or consequences of those problems.</p> <p>The other group is going to draw the Solution Tree. This tree will also have deep roots which will be used to illustrate the things that need to be</p>	

	<p>done in order to resolve the situation of women in Zambia. And the branches of this tree will show the outcomes or consequences of those solutions being implemented.</p> <p>You have 15 minutes for this exercise. Then each group will present its tree back to the other group explaining their logic.</p>	
5	<p>The last thing we are going to do is cross-check the logic between the two trees. Has the solution tree addressed all of the problems identified in the problem tree (and vice versa) or are there a few additions that we need to make to fill in our understanding of the problems and their solutions?</p> <p>Concluding Discussion: What is to be done? Based on this new understanding what should the researchers / film-makers now focus on? Too much emphasis on problems? Focus on identifying the role models? Success stories – strategies, tips and advice?</p> <p>Thank you everyone.</p>	

Appendix 5. Participatory Video Workshop Plan and Objectives

Participatory Video Workshop: Facilitator Guide

The overall objective of the course is to increase participants' self-confidence and self-esteem through teaching technical skills and by providing an opportunity for participants to critically examine their own social circumstances and (using film-making as a means of expression) to become more able to articulate opinion about how things should be.

The ideal outcome is that by the end of the process participants feel more confident as users of technology; that they can voice their own critique on the situation of women in technology and they are more inclined to act to improve the situation. In my research the name for this ability to critique and act for change is called 'critical-agency'.

Book rooms and projector.

Locate and test all camera and editing equipment 24 hours before workshop.

Make sure all equipment is working. Charge batteries. Wipe memory.

Day One

The key objective on day one is that each participant should complete their first film. The quality of the film is not important as we are not aiming to become expert film-makers. Self-esteem is raised by the experience of accomplishing tasks, so we aim for each person to complete two or preferably three films in the first three days of the workshop.

It is important NOT to aim for perfection or to introduce too many techniques or skills too soon.

Our goal is to create opportunities for participants to experience success, and not failure. Provide lots of positive feedback and avoid any criticism of participants' films in the first few days. The objective is to boost participants' self-esteem and sense of confidence through enabling them to accomplish technical tasks.

Exercise One

Objectives. The first exercise is designed to:

- (a) create an informal atmosphere where everyone's voice is heard and respected
- (b) have each person speak (introducing their neighbour)
- (c) create an experience of group learning through interactive discussion rather than old-fashioned learning model of *expert-teacher lecturing at passive-students*
- (d) establish shared expectations about what will be accomplished by end of course
- (e) get participants used to asking questions and voicing their opinion

Task: Working in pairs, ask the person next to you three or four questions (make notes) and then introduce them to the whole group. What is your name and where are you from?

How did you hear about the course? What are you hoping to get out of this course?

When all participants have fed back to the group respond to their comments about expectations from the course by telling them what they will accomplish by the end of the week, and in order to illustrate this, show them a film produced by participants of a previous workshop.

Exercise Two:

Objectives: to become confident with cameras - through experience (not through teaching)

Hand out one Flip camera for each pair of participants. Teach them in as short a time as possible > red button starts filming, red button ends filming, play button to view film. Then immediately get them to interview their partners asking them three questions: What is your name? How long have you been involved with Asikana Network? How did you first find out about Asikana Network? Participants should play back and view the film they just made on camera itself.

Then switch roles so that interviewee becomes interviewer and everyone gets to complete their first filmed interview.

Establish Workshop Rules and agree with participants

1. Everyone's voice will be heard and respected
2. Turn mobile phones off. No mobile use at any time in workshop room.
3. Facilitator may not touch camera or keyboard at any time for any reason.
4. Likewise, when it is your partner's turn to film or edit you may not touch the camera or keyboard.

Exercise Three:

Show an example of a vox-pops film about Asikana made by participants of a previous workshop.

Set them the task (working in pairs) to make a one minute promo film about Asikana. They must interview three people and ask them three questions and edit this into a film. Interviewers questions will be edited out so interviewees must start their answers with:

- a) My name is and I have been a member of Asikana for
- b) The aim of Asikana Networks is to
- c) For me the best thing about Asikana Network is

Film should have opening title and closing title and soundtrack (provide Vivaldi file to everyone).

The objective is that participants go home on the very first day with their self-esteem raised because of having successfully accomplished tasks and produced their first film.

Tell participants that their first film will not be perfect, that we are NOT aiming at perfection.

Find things to praise in everyone's first film.

Do not find things to criticise. We are aiming to boost confidence not produce excellence.

Editing

First create a directory on desktop

Insert camera USB into laptop

Copy all camera files into desktop directory

Remove camera from computer

Open new project in OpenShot (give project a name)

Import all files from desktop directory into OpenShot

Save project (and remember to save regularly as you create your film)

Export Film Options =

Profile - DVD

Target – DVD -PAL

View Profile – DV/DVD Widescreen PAL

Quality - High

**Put cameras on charge*.*

Reflection: Group viewing of films.

- a) Tell film-makers that after viewing the film you will ask them to suggest one or two things that
they would do differently or try to improve in their second film.
- b) Play films back to the full group.
- c) Ask other participants for positive comments about what they liked best about the film.
- d) Ask film-makers if they can see any opportunities to improve the film or things they will do
differently next time.
- e) Praise the good things that they have accomplished.

The objective here is to put participants themselves in charge of their own learning. Rather than the old-fashioned style of a teacher i.e. telling them what they have done wrong (disempowering) participants learn to reflect and evaluate their own learning and discover for themselves what they have achieved and what they can do to accomplish even more next time (empowering). Participants are not just learning, they are learning how to learn and develop.

The process is designed to provide a space for participants to successfully accomplish tasks, express themselves through film, and in doing so boost their self-confidence, self-esteem and self-efficacy.

Day Two

Introduce Tripod

Each day introduce one or two new techniques e.g.

Lighting: Sun on your neck and interviewees face

Sound: shield from wind / maintain same close distance from camera

Soundtrack: low volume to set mood (not a promo for your favourite tune!)

Framing: find attractive background. Aim to fill whole frame with attractive background.

Day Two Task:

In two groups of three

Make a two minute film about “Women in Technology in Zambia”.

Interview each other (only participants of course).

Chose a presenter talk to camera to introduce the film and

(same person) to make concluding comments at end of film.

“Why are there less women than men employed in technology jobs in Zambia?”

“What do you think needs to happened to improve this situation?”

“Why hasn't this change already happened?”

“What advice do you have for Zambian women thinking of a career in technology?”

Storyboard

In order to make the best possible film it is important to know exactly what scenes you need to film to complete your next film. Preparing a plan in the form of a 'storyboard' is the professional way to do this. A storyboard is a series of drawings with notes where each drawing represents one scene in your planned film. Having a clear storyboard will save you wasting a lot of time filming hours of footage that you cannot use. A storyboard will ensure that you come back from filming with film all of the scenes that you need to complete your film successfully in a short amount of time.

If you are making a 90 minutes feature film or a 45 minute documentary your storyboard will be long and contain over one hundred scenes. For the next film on this course your storyboard will contain six scenes and will look something like this (example on flip chart).

Opening Title

Presenter Introduction

Interviewees #1st Question

Interviewees #2nd Question

Presenter Final Words

Closing Titles

Participants will not be given cameras until they have completed a storyboard and the facilitator has checked it. The facilitator is only checking that participants are learning how to storyboard. The most important thing is to get the team out making their second film. Remember that we are not aiming at film-making perfection. Our key objectives are to

provide space for participants to improve their self-esteem, self-confidence and technical skills whilst making films about the social situation facing young women in Zambia. Always be positive about participants efforts. Do not make criticisms or sarcastic comments. Your objective is to make participants feel confident that they can do this well.

At the end of the day watch new films as a group
Encourage film-makers to reflect on their own films
Ask “What would you do differently next time? What would you like to improve?”
Provide supportive positive feedback - not criticisms.

If time available at the end of the day go over uploading to YouTube *and* Facebook

**Put cameras on charge*.*

Day Three

Introduce Informed Consent and why it is important:
tell people who you are, why you are filming, who will see film
and **then** ask for their permission to film.

Day Three Task: Make a film about women's rights in Zambia.

NOT a vox pops. Use a different format: news report or documentary.
You may interview people NOT in your group (men/member of public/expert) IF you have their informed consent on film.

Show an example of a film made by previous workshop participants that is not vox pops,
**Presenter: “Today we are going to be looking at women's rights in Zambia.
Do Zambian women know what rights they have?
Let's speak to a expert and find out!”**

“What rights do Zambian women have?”
“What should you do if your right to X has been violated?”
“What Zambian organisations exists to support women whose rights have been violated?”
“What is the Asikana women's rights app?”

Reflection session at the end of the day:

When they have finished watch their films as a group
Have film-makers reflect on their own films.
What would you like to improve / do differently next time?
Do not let other participants make negative criticisms or sarcastic comments.
You can ask them to say (only) what they most liked about the film.

**Put cameras on charge*.*

Day Four and Five

In one or two teams

Make a film no longer than five minutes on a subject of your choice.

The film must include cut-aways, fade-in/fade-outs, titles and a soundtrack.

Experiment with fade in / fade out or both sound and vision

Practice turning sound/video off to make cut-aways

Change clip volume. Change soundtrack volume.

Facilitators: Make sure **everyone** is getting a turn at editing.

Make sure that **nobody** else touches the keyboard when someone is having their turn as editor.

It is **essential** to make sure everyone becomes confident *and* that nobody dominates the equipment..

During review and reflection sections at the end of the day there will be natural opportunities to introduce new issues / techniques. It is far better to wait until participants have a need for a techniques and introduce it at this time when it makes sense to them, than to teach techniques at them one after another before they have a practical context for them.

Examples:

Main shots types: establishing shot, long shot, head shot, close-up
(explain e.g. an establishing shot is a first shot to provide context / location)

Camera angles: looking up, looking down, eye level

Importance of maintaining eye contact with interviewee and showing active interest

Two ways of dealing with different language interviewees:

Over-dubbing an audio translation (Bemba/Tonga) sound track

Using sub-titles for a visual translations (Bemba/Tonga)

If participants want to do an 'Advanced course' the objective is to get them to get more practice (and feel more confident) so just give them a new task and get them going.

e.g. "Three Generations of Women in Zambia"

With cut-aways and translation

"What freedom did you have as a young women regarding educatio/marriage/employment etc."

"Why do you think these expectations/rules exist(ed)?"

"Do you think there has been much change for young Zambian women, over the generations, with respect to education, domestic responsibilities, freedom to work outside the home, age of marriage, freedom to chose marriage partner, age of marriage, etc.?"

Put cameras on charge
