CENTRING DEVELOPMENT

Education Centres Supporting Rural Development in KwaZulu-Natal

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DECLARATION

I acknowledge that this is my own work and duly referenced.

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4 December 2006.

ACKNOWLEDGEMENTS

ABSTRACT

Since the 1950s, various paradigms of development have aimed to achieve improvement in the living conditions in the developing world (Africa, Asia and Latin America). Today the effects of globalisation have increased the gap between the information and technology haves and have-nots and development practice (born out of the paradigms developed over the last fifty years) now seeks to address issues such as access to Information Communication Technology (ICT) and the need for developing countries to participate in the global economy.

The practice of development has and continues to raise debate, as Friberg and Hettne (1985 in Melkote and Steeves, 2001: 19) note "there is no universal path to development. Each society must find its own strategy". Thus development projects have ranged in approach and focus. This research project examines the first year of the joint venture between the Media in Education Trust (MiET) and the KwaZulu-Natal Department of Education (KZNDE) to develop Education Centres Supporting Rural Development in KwaZulu-Natal.

These education centres aim to address a number of development issues for rural communities in KwaZulu-Natal. Through these centres access is provided for schools and communities in the area to Information Communication Technology, teacher development programmes, educational materials (including textbooks), library services, skills development programmes (including Adult Basic Education and Training), youth programmes and HIV/AIDS education and support.

This research examines the Education Centres project in relation to Development Communication Theory and the local and global development context. The local context focuses on the challenges faced by South Africa as a developing nation and the urban-rural divide. The global perspective is gained through examining the centres project in relation to the Millennium Development Goals. In order to examine the Education Centres, this research project examines three centres in KwaZulu-Natal and their objectives in relation to the issues of participation, access, sustainability and the economic and socio-economic impact of the development project. These issues relate not only to the local and global context for development but to the relationship between technology, education and development.

This Education Centres project is still in the early stages and thus the challenges faced could still be resolved during the course of the project. The key challenges identified when examining the three centres in relation to the issues of

participation, access, sustainability and the economic and socio-economic impact of the development project are the lack of physical resources currently available in the centres and the lack of Internet connectivity in two of the centres. These two factors restrict the centres from fully achieving their objectives in the context of access, participation, sustainability and the socio-economic impact of the project.

The Education Centres project is scheduled to establish these Education Centres over four years. This research presents an analysis of the first year of the project, thus there is opportunity for additional research as the project progresses and this future research can more accurately examine if the Education Centres project is meeting its objectives in relation to the issues outlined in this research – those of access, participation, sustainability and the socio-economic impact of the development project.

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LIST OF ACRONYMS

3Ds – Diversity, Dialogue and Development

ABET – Adult Basic Education and Training

AIDS – Acquired Immune Deficiency Syndrome

DC – Development Communication

DSC – Development Support Communication

DotForce – Digital Opportunity Task Force

ECOSOC – United Nations Economic and Social Council

ELITS – Education Library Information and Technology Services

FLOSS – Free/Libre and Open Source Software

GCIS – Government Communication Information Services

GNP – Gross National Product

HIV – Human Immunodeficiency Virus

ICT – Information Communication Technology

IDRC – International Development Research Centre

IMF – International Monetary Fund

ITU – International Telecommunication Union

KZNDE – KwaZulu-Natal Department of Education

MiET – Media in Education Trust

MPCC – Multi-Purpose Community Centre

NEPAD – New Partnership for Africa's Development

NWICO – New World Information and Communication Order

ODA – Organized Development Assistance

OVC – Orphans and Vulnerable Children

OSISA – Open Society Initiative for Southern Africa

PRA – Participatory Rural Appraisal

RA - Resource-Advantageous

RD - Resource-Deprived

RNE – Royal Netherlands Embassy

SAQA – South African Qualifications Authority

SCCS – Schools as Centres of Care and Support

SETA – Sector Education and Training Authority

SITA – State Information and Technology Agency

UN – United Nations

UNESCO – United Nations Educational, Scientific and Cultural Organisation

USA – Universal Service Agency

USSR – United Soviet Socialist Republic

WSIS – World Summit on the Information Society

INTRODUCTION

Development Communication Theory offers various perspectives on development projects since Modernisation in the 1950s and 1960s. Out of these paradigms has arisen an emphasis on the role technology and education and information distribution in development. The various paradigms from Modernisation to the 3Ds of Diversity, Dialogue, Development offer recommendations or 'best practice' for development projects. More recently global initiatives such as the Millennium Development Goals have given development practitioners goals for development.

This research aims to explore how an example of a development project, the Education Centres supporting Rural Development (Education Centres[1]) which is based in KwaZulu-Natal aligns with Development Communication theory and the recommendations of these paradigms. The focus areas of the analysis will be on the key issues of social and economic development, access, participation and sustainability.

The research also examines the project in the context of the Millennium Development Goals and the South African development context. It looks at how the Education Centres project addresses issues of education delivery, access to skills training and ICTs and the socio-economic improvement of rural and urban communities. The Education Centres project also makes use of the centre approach to development and this is explored in relation to other similar approaches.

This research begins with an overview of Development Communication theory in order to establish the theoretical framework for the analysis. The key issues of technology and education are also discussed in relation to Development Communication Theory. The second chapter explores the South African development context with reference to issues such as the digital divide and the telecentre approach to development. It also introduces the Education Centres project and provides an overview of the project and its objectives.

The final chapter presents an analysis of the Education Centres project in relation to how the project addresses the issues of social and economic development, access, participation and long-term sustainability.

As the Education Centres project has only been in operation since 2005, it is too early to evaluate whether the project has achieved its objectives or made a significant

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[1] From this point forward the Education Centres supporting Rural Development project will be referred to as the Education Centres project.

impact on the social and economic conditions of the communities where the centres are based. What this research does however, present is an understanding of the project in relation to Development Communication theory and how the project has and is aiming to address development concerns of access, participation and sustainability. This research provides the foundation for future research into this project and its potential to influence Education Centre policy and practice in South Africa.

CHAPTER 1: THEORETICAL FRAMEWORK

SECTION A: OVERVIEW OF DEVELOPMENT COMMUNICATION THEORY

The concept of modern development emerged following the Second World War and the reconstruction of Europe. From 1945 various agencies and organisations were established to facilitate war-ravaged Europe regain its position in the world market. Melkote (1991: 15) refers to this as the "Genesis of Organized Development Assistance (ODA)" beginning with the establishment of the International Monetary Fund (IMF), the World Bank and the United Nations "family of special agencies" (Melkote, 1991: 15).

Not only were various development agencies and organisations established at this time, but simultaneously the Third World experienced freedom from colonisation (Melkote, 1991: 20). These events coupled with the establishment of the United Nations (UN) marked the beginning of development aid to the Third World[2] (Melkote, 1991: 20).

Development Communication theory arose out of the perception at that time that the Third World needed to develop to resemble Western Europe and the United States. Theorists sought to find and develop effective means of transferring information, technology and knowledge in order to facilitate this development and as a result various paradigms evolved in the context of Development Communication theory. This research examines in particular the paradigms of Modernisation, Dependency Theory, Development Support Communication, 'Another Development' and the 3Ds (Diversity, Dialogue and Development).

These various paradigms illustrate how development communication theory and the practice of development have evolved from the economic based Modernisation approach to the more participatory approaches of 'Another Development'.

Modernisation

Modernisation emerged as the dominant paradigm of development following the Second World War and during the 1950s and 1960s. The Western world saw the Third World, recently freed from colonialism, in need of development from traditional society to modern society (Melkote and Steeves, 2001: 79). The world according to

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[2] Although the concept of the Third World is open to debate, this researcher has chosen to use the term following the argument by Melkote and Steeves (2001) that "extreme and widespread situations of poverty, unemployment, illiteracy, hunger, disease, sanitation, and refugee displacement are locate in geographic areas conventionally labelled the Third World" (2001: 29).

communication theorist Everett Rogers was divided into two "camps" based on various social and economic criteria (1969: 9). These 'camps' were distinguished as "the less developed and the more developed, the traditional and the modern" (1969: 9).

According to Rogers (1969), development could be described as "a type of social change in which new ideas are introduced into a social system in order to produce higher per capita incomes and levels of living through more modern production methods and improved social organization" (1969: 9). Rogers noted that his understanding of development was congruent with that of Caplow and Finsterbusch (1964 in Rogers, 1969: 9) who define development as "the process whereby a contemporary society improves its control of the environment by means of an increasingly competent technology applied by increasingly complex organizations." These definitions highlight Modernisation's emphasis on the transfer of technology as a necessary condition for development. The aim of this technology transfer was to improve economic conditions and thus Modernisation regarded development in purely economic terms. Economic growth was considered a key indicator of development. The goal therefore of Third world societies was to model themselves on Western society. As Fejes (1976) notes

> It was generally assumed that a nation became truly modern and
> developed when it arrived at a point where it closely resembled
> Western industrial nations in terms of political and economic
> behaviour and institutions, attitudes toward technology and innovation,
> and social and psychic mobility (in Melkote and Steeves, 2001: 79).

Modernisation emphasised economic growth through "adopting a capitalist economic system, building up formal infrastructure, and acquiring technologies" (Melkote and Steeves, 2001: 71) as the key to development in the Third World. Servaes (1995) aptly describes the means of mirroring Western society as

> a massive transfer of capital, ideology, technology, and know-how, a
> worldwide Marshall Plan, a green revolution. The measures were
> GNP, literacy, industrial base, urbanisation, and the like, all quantifiable
> criteria." (Servaes, 1995: 40).

The focus on economic growth meant that two main factors were important in this paradigm: the productive resources a country had and the economic institutions that would use and guide the use of these resources (Weaver and Jameson, 1978: 9 in Melkote and Steeves, 2001: 75). Productive resources included capital, labour, land and natural resources, technology, infrastructure and entrepreneurship (Melkote and Steeves, 2001: 75) and how to utilise these resources for economic growth.

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Modernisation and Communication

Communication plays an essential role in development. Since the advent of modern development theory, the ideas, innovations and knowledge that would stimulate modernisation in the underdeveloped world needed to be effectively communicated to the communities and societies. Rogers argued that "communication processes were [are] integral, vital elements of modernisation and development" (1969: 8). Melkote and Steeves (2001) also acknowledged the important role communication played in the development approach of Modernisation, noting that "at both the macro and micro levels, communication was [is] viewed as a product and reinforcer of economic growth and development" (103).

Communication during Modernisation was implemented at a macro and micro level. At the macro level, global and national policies that supported a 'free-flow' of media and information technology, content and hardware were viewed as crucial for Third World development and participation in the global economy (Melkote and Steeves, 2001: 103). Examples of macro level communication approaches included the hypodermic needle or bullet theory.

At the micro level persuasive marketing campaigns in areas such as agriculture, population, and health were seen as the most efficient means to modernise traditional individuals and societies (Melkote and Steeves, 2001: 103 – 104) and the Diffusion of Innovations approach was adopted as the communication tool for the micro level.

The mass media were a key feature of the Modernisation communication approach and it was assigned a key role in the Modernisation development model[3]. The mass media were seen as "the vehicles for transferring new ideas and models from the West to the Third World and from urban areas to rural countryside" (Melkote and Steeves, 2001: 117) i.e. they were a means of 'showing' the third world how to develop and modernise and the communication models, discussed above, were designed to convey information and knowledge with this objective. They were characterised by a distinct lack of participation in message creation and design by the communities targeted for development and a lack of sensitivity to the political, social and economic context of the so-called traditional societies. This, as will be discussed later, resulted in later

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[3] Melkote and Steeves (2001) refer the Modernisation paradigm adopting a "unique model for the modernization of the developing nations" (2001: 114). This model emphasised "the importance of economic growth through industrialization, capital-intensive and machine-intensive technology, a top-down structure of authority with economists in charge, and a certain attitude and mind-set among individuals" (2001: 114).

paradigms adopting a more participatory approach to the development and development communication process.

Among the key communication theorists during the period of Modernisation were Daniel Lerner and Everett Rogers. Lerner in his book *The Passing of Traditional Society* (1958) observed the effects of change and modernisation in the Middle East. He noted that the mass media played a key role in spreading new ideas and "new desires, which provide the dynamic power of modernization" (Lerner, 1958: 46).

Lerner saw modernised society as characterised by empathy.[4] The modern individual, as a consequence of this empathy, was more "industrial, urban, literate and participant" (1958: 50) in contrast to the non-participant nature of 'traditional society'. Lerner argued therefore that the mass media "as great teachers of interior manipulation" (1958: 54) were responsible for disciplining "Western man in those empathetic skills which spell modernity" (Lerner, 1958: 54). Therefore Lerner advocated that the mass media played a key role in the development process and that a communication system operated as "both an index and agent of change in a total social system" (Lerner, 1958: 56). Rogers echoed Lerner's emphasis on the role of mass media in development. In his work *Modernisation among Peasants* (1969) he argued that national development planners had "tended to neglect the potential of the mass media, even though these communication channels may well be one of the sharpest tools in the developer's kit" (Rogers, 1969: 99).

The Hypodermic Needle (Berlo 1960 in Melkote and Steeves, 2001: 105) or Bullet Theory (Schramm, 1971 in Melkote and Steeves, 2001: 105) which formed the basis of the macro-level approach to communication, were based on linear models of communication, such as Laswell's Formula of who says what using which channel to whom and with what effect (Melkote and Steeves, 2001: 105). These models of communication were based on the apparent success of propaganda during World War 1 (Melkote and Steeves, 2001: 106).

Subsequent research found that this assumption of the powerful effects of mass media were unfounded. The research conducted by Lazarsfeld, Berelson and Gaudet (1948) on the US 1940 Presidential election found that individuals tended to be influenced in their political decision making by members of their peer groups rather than by the mass media (in Melkote and Steeves, 2001: 108 – 109). This research resulted in the Two Step Flow model of communication which advocated that the mass media

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[4] Lerner interprets empathy as "a high capacity for rearranging the self-system on short notice" (1958: 51).

influenced opinion leaders in a community and it was these opinion leaders who in turn influenced the others in the community (Melkote and Steeves, 2001: 109). Thus the mass media were seen to create awareness and at the local or micro level and as a result the Diffusion of Innovations approach to communication emerged. Diffusion of Innovations theory according to Melkote and Steeves (2001) "gradually evolved as the local-level framework to guide communications planning for modernization" (2001: 120). Rogers identified certain key elements in the diffusion of information. These were: firstly, the innovation which represented any idea or knowledge considered new by the recipient; secondly, the fact it was communicated, over time, through certain channels among members of a "social system" (Rogers with Shoemaker, 1971 in Melkote and Steeves, 2001: 122). The individual thus passed through five stages in the adoption of a new idea. These were awareness (the individual becomes aware of the idea), interest (the individual seeks more information), evaluation (the individual evaluates its potential use and benefits), trial (decision to try the idea on a limited scale) and finally adoption (where the individual decides to use the innovation on a full scale) (Melkote and Steeves, 2001: 123). It was this approach and theory that formed the basis for micro level communication in the Modernisation approach in the areas of agriculture, health, family planning etc. (Melkote and Steeves, 2001: 123).

The Effects of Modernisation

Modernisation brought mixed results. Founded on several assumptions and biases, Modernisation emphasised per capita income, per capita consumption of resources and gross national product (GNP) as goals and indicators of development (Melkote and Steeves, 2001: 154). The prior histories and culture of the developing countries were considered irrelevant and the Western 'way' was considered the "truth" and thus was accepted uncritically (Melkote and Steeves, 2001: 154 – 155). These assumptions and biases did not result in the growth envisioned by development planners and programmes. Although some countries did experience an increase in their GNP rates[5] (Melkote and Steeves, 2001: 161), the overall effects of Modernisation was a growth in unemployment and poverty (Melkote and Steeves, 2001: 161). During the 1960s

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[5] Brazil and Korea showed a 7 and 10% increase in GNP rates respectively in the 1960s and 1970s (Melkote and Steeves, 2001: 161).

unemployment increased and wealth became concentrated in the hands of the minority rather than distributed evenly amongst the people (Melkote and Steeves, 2001: 159).

Critics of Modernisation saw it as creating unequal development, "what planning seems to have brought is an enhancement in the good life of a very small elite class, while increasing the good life for the poor very little or perhaps even removing them further from the attainment of the good life" (Weaver and Jameson (1978) in Melkote and Steeves, 2001: 162)[6].

Despite the significant failures of Modernisation, it still exists as an element in modern development projects. Development programmes emphasising profit, privatization and technological growth echo the central tenets of past Modernisation programmes (Melkote and Steeves, 2001: 79). However, the critics of Modernisation did initiate a change in development approaches and these changes have influenced modern development projects. Dependency theory evolved as a prominent critique of the dominant paradigm. Although it did not offer a practical solution to the problems of Modernisation, it did offer a substantive critique which informed later paradigms.

Dependency Theory

Dependency theory grew out of the observations by theorists that capitalism as an economic model was a failure in a large part of the modern world (Melkote and Steeves, 2001: 170). Originating out of Latin America, theories within this paradigm were "the product of the application of Marxist theories of imperialism" (Kumar, 1994: 84). Dependency theorists saw the world-system as divided between core and periphery nations where the core, with the assistance of elite groups within the periphery, exploited the periphery nations (Melkote and Steeves, 2001: 170). The Third World, according to the Dependency theorists, was characterised by a global economic dependence. Development and underdevelopment were part of the same process (Melkote and Steeves, 2001: 171). "Underdevelopment was the obverse side of development; the

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[6] The Modernisation approach applied to Africa, Asia and Latin America was founded on the same development programme instituted in Europe after the Second World War. In Europe this approach was successful in rebuilding Europe, however, this model failed to achieve the same results in the Third World. Rogers argues that Europe was at a higher level of development prior to the "temporary setbacks of World War II" (Rogers, 1969: 10). Dependency theorists such as Frank (1967) argued however, that it was the result of the continued exploitation of a capitalist world economic system.

capitalist countries had become 'developed' by exploiting their colonies for centuries" (Baran in Kumar, 1994: 84).

Andre Gundar Frank, a key theorist of the dependency school, argued that it was "capitalism, both world and national, which produced underdevelopment in the past and which still generates underdevelopment in the present" (Frank, 1967: xi). Frank examined several countries in Latin America (including Brazil and Chile) and argued that their underdevelopment was a result of capitalist development (1967: xi).

Dependency theorists therefore did not see Modernisation as the key to development of the underdeveloped. Rather that there needed to be a shift in the perspective of development and the relationship between the core and periphery. They argued that as long as capitalism continued to exist as the dominant world system, underdeveloped countries would continue to be exploited (Servaes, 1995: 41). Thus whereas Modernisation viewed the barriers to development as internal to the developing country; the dependency theorists argued that the barriers were external i.e. the present international system. As a result development of the centre nations continued to result in the underdevelopment of the periphery (Servaes, 1995: 42). In order, therefore, for a developing nation to remove these external obstacles, they would need to "dissociate itself from the world market and opt for a self-reliant development strategy" (Servaes, 1995: 42).

Although Dependency theory did not offer a set strategy for development, it did however, initiate changes in the approach to development. As a result of this critique, new goals and approaches to development were established. These included:

- Equity in distribution of information and other benefits of development
- Active participation of people at grassroots
- Independence of local communities (or nations) to tailor development projects to their own objectives
- Integration of the old and new ideas, the traditional and modern systems, the endogenous and exogenous elements to constitute a unique blend suited to the needs of a particular community (Melkote and Steeves, 2001: 199).

Dependency theory also played an important role in the drive for a New World Information and Communication Order (Servaes, 1995: 41). Dependency theory argued that the means for the developing world to break the cycle of exploitation development was to achieve economic and cultural self-reliance (Servaes, 1995: 42). The New World Information and Communication Order was an attempt to establish this independence in the world market for developing countries.

A Shift in Development Paradigms

By the 1980s it was acknowledged that Modernisation as a development approach was a failure. Despite its educational and communication programmes, it had failed to achieve significant development in the Third World. "Given the available data about audiences reached, practices changed, benefits achieved, and long term institutional survival, we can assume that most of them [development communication activities since the 1950s in agriculture and nutrition] fail" (Hornik, 1988 in Melkote, 1991: 228). Melkote highlights that this failure in development communication can be attributed to how the role of information has been conceptualised. "Communication scholars have blithely assumed that most problems of development may be solved by throwing information at them and not doing anything else" (Hornik, 1988 in Melkote, 1991: 228-229).

Following Modernisation and Dependency theory's resultant critique of the dominant paradigm; new development approaches emerged with new approaches to communication. These approaches were influenced by Dependency theory and re-evaluated of the role of the developing community in the development process. The result was the growth of more participatory development programmes and consequently communication models. Servaes (2002) identifies two dominant approaches within the context of current participatory development: the UNESCO language on development and Paulo Freire's dialogical pedagogy.

The New World Information and Communication Order

The UNESCO language on development focused on self-management, access and participation in development (Servaes, 2002: 85). A UNESCO meeting in Belgrade defined the terms of this development as:

- Access – the use of media for public service. This refers to the opportunities available to the public to choose the programs, to give feedback and to transmit its demands and reactions to the production organisation.
- Participation –implying greater public involvement in communication systems and includes the involvement of the public in the production process and the management and planning of communication systems.
- Self-management is the most advanced form of participation and this is where the public exercises power in decision-making within communication projects and is involved in the development of communication policies and plans (Servaes, 2002: 85).

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These terms were later echoed in the MacBride Report (1980) which called for a New World Information and Communication Order (NWICO). NWICO was initiated by non-aligned nations and intellectuals to re-position the role of communication in development. It focused on greater access to the means of communication and thus a reduction in inequalities through the democratising of communication.

NWICO acknowledged the need to address the power of those who control and direct communication and that, in order to address this balance of power, there was a need to address the inequalities between various social groups and classes within each society. "In the sphere of communication, the problem of the present and the near future is to open up the opportunities which exist in principle but are still denied to the majority of the world's population" (MacBride, 1980: 13).

In order to achieve this redistribution of power with regards to communication, NWICO recommended a closing of the "communication gap". As MacBride notes "since communication is interwoven with every aspect of life, it is clearly of the utmost importance that the existing "communication gap" be rapidly narrowed and eventually closed" (MacBride, 1980: 254). The conclusions and recommendations reached by the commission, called for a diffusion of power through greater access and participation by the developing world to communication and communication technologies and infrastructure.

Unfortunately, the context of the Cold War in which NWICO emerged meant that the power blocs of the United States and the Soviet Union derailed the debate to suit their geopolitical agendas (Raboy, 1998: 90). As a result, the problems raised by the commission were never seriously considered and Britain and the United States withdrew in 1985 and 1984 respectively and NWICO came to an end.

Paulo Freire and Dialogical Pedagogy

The second approach highlighted by Servaes (2002) is the dialogical pedagogy of Paulo Freire. Working out of Brazil and focusing on education and empowerment; Paulo Freire's approach is based on two key theoretical perspectives. Firstly, subjugated people must be treated as "fully human subjects in any political process" and that human beings have a destiny that is "more than life as a fulfilment of material needs" (Servaes, 2002: 84). Freire's goal for human beings is critical consciousness. This is where the individual is able to perceive the true causality of the world and their potential to direct

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and influence the change (Freire (1976) in Taylor, 1993: 61). Freire's approach emphasised dialogue and participation as the means to achieving critical consciousness. An individual who has achieved this consciousness is able think holistically and critically about their conditions, themselves, make the changes needed and feel empowered to think and to act on the conditions around him or her (Shor, 1993: 33).

Servaes highlights some key differences between the UNESCO and Freirean approaches. Firstly, whereas UNESCO refers to some degree of access and self-management as a gradual process; Freire advocates that self-management is imperative from the beginning. Secondly, UNESCO refers to the 'public' in neutral terms in contrast to Freire who refers to the oppressed and finally, UNESCO puts the main focus on the institution therefore participation means participation by those involved in the communication institution whereas Freire, on the other hand, advocates participation by all members of society whether within the institution or not (Servaes, 2002: 85).

Aside from these differences, there are also commonalities within these approaches. Both advocate greater participation of individuals in the development process even though with the case of UNESCO this participation is limited to the individuals in the communication institution. Both also encourage self-management. There is a clear shift from the institution dominated and controlled Modernisation approach. It was from within these two streams that the development paradigms and communication approaches of 'Another Development' and Development Support Communication emerged.

'Another Development'

The reassessment of development resulted in the emergence of a new paradigm entitled 'Another Development'. This paradigm, in contrast to Modernisation, shifted its priority from a universal development solution to a more contextual approach that would take into account the individual needs of the country (Melkote, 1991: 234). Similar to the independence advocated by the New World Information and Communication Order, nations within this paradigm were encouraged to define their own goals, needs, priorities and problem-situations (Jacobson, 1989 in Melkote, 1991: 234). The focus of 'Another Development' was not only on the economic but also on the human concerns of development. It placed increased emphasis on the basic needs of people "health,

nutrition, ecology, structural transformation, and participatory democracy" (Melkote, 1991: 234).

According to Jan Servaes, 'Another Development' was founded on the principles outlined by the Dag Hammerskjold Foundation. These principles advocated a development paradigm that was aimed at the satisfaction of basic needs, that was developed from within the community and would be self-sustainable and reliant and that would take into account the environment (Servaes, 2002: 78). 'Another' Development, Servaes argues, recognised that there is no "universal path to development" rather that it must be seen as a process that is "integral, multidimensional, and dialectic" (Servaes, 2002: 78).

The key feature of this paradigm was the increased emphasis on development as a participatory process. According to Melkote (1991) the 1980s saw an increased awareness by national governments and development agencies for greater participation from the developing community in planning and implementing projects (236). Melkote (1991) identifies several factors that initiated this drive towards greater community participation. These were as follows:

- Some evidence in World Bank projects of the positive impact of community participation in rural and population/health projects;
- The increasing difficulty faced by local and national governments to drive numerous development projects;
- The move by non-governmental organisations (NGOs) and United Nations agencies to empower developing communities by allowing them greater control over resources and decision-making in development projects and programmes and;
- A heightened sensitivity to gender issues (Bamburger, 1988 in Melkote, 1992: 236).

Alongside the increased emphasis on participation, this paradigm also brought to the fore the concept of sustainable development. Sustainable development is defined by the World Commission on Environment and Development as "meeting the needs and aspirations of the present generation without compromising the ability of future generations to meet their needs" (in Melkote, 1991: 234). This concept has since informed current development projects to place an emphasis on long-term sufficiency and sustainability.

With the shift in emphasis in development came a change in the approach to communication within the development arena. Whereas Modernisation was characterised by a top-down approach to communication that was based on the sender to receiver model; participatory development naturally sought to integrate participatory

characteristics into their communication approach. Melkote (1991) described the communication approaches of the new participatory paradigms as "more complex and varied" than those utilised by Modernisation. They varied "depending on the normative goals and standards set by the host communities" (Melkote, 1991: 245). 'Another Development' emphasised increased participation through interpersonal and group communication (Melkote, 1991: 247) and recommended combining traditional media such as folk tales and folk singing with Western media. This was done to increase participation and the effectiveness of the communication message (Melkote, 1991: 247).

Development Support Communication

Development Support Communication (DSC) was another communication approach that evolved as a more participatory approach to development. There was a shift from the "concept of development communication (DC) with its emphasis on top-down, big media centred government-to-people communication to development support communication (DSC) focused on co-equal, little-media-centred government-with-people communication" (Ashcroft and Masilela, 1989 in Melkote, 1991: 262).

In DSC messages are developed by both the community and the donor-agency. It is characterised by smaller and traditional media forms and emphasises cultural identity, empowerment and participatory communication (Burger, 1999: 91). Out of DSC emerged the role of the development support communicator who "mediates between the technical experts and their beneficiaries" (Melkote, 1991: 262). As a communication approach, DSC incorporated both the community and donor agency involved in the development programme. It presented a horizontal approach to communication in contrast to the vertical approach favoured by Modernisation (Melkote, 1991: 262). Development support communicators were not only responsible for promoting the interests of the development beneficiaries but needed to also ensure that these beneficiaries had access to communication media and thus could become the source of development communications (Melkote, 1991: 265). Like 'Another Development', DSC also advocated the use of group and interpersonal communication and traditional media (Melkote and Steeves, 2001: 352).

The End of the Cold War and the 3Ds – Diversity, Dialogue, Development

The end of the Cold War in the early 1990s brought another shift in the focus for development practitioners. NWICO (despite its failure to successfully institute an action plan) and the more participatory paradigms of development, such as 'Another Development', had shifted the focus of development projects from the economic to include the social and political needs of the development programme beneficiaries. With the end of the Cold War the global arena changed. New nation states were formed and with this change came a resurgence in religious and ethnic fundamentalism. This also resulted in increased conflict. Culture and cultural heritage became important issues and as did the question of fundamental human rights, notably the right to freedom of expression.

In relation to NWICO, this communication strategy re-emphasised NWICO's call for a fairer dissemination of information and Freedom of Expression as the central tenet of communication and development programmes. Just three days before the fall of the Berlin Wall, UNESCO put forward a New Communication Strategy. This strategy emphasised the right to freedom of expression and sought to address potential issues of freedom of expression by ensuring "a free flow of information at international as well as national levels, and its wider and better balanced dissemination without any obstacle to the freedom of expression, and to strengthen the communication capacities in the developing countries so that they can participate more actively in the communication process." (UNESCO in Arnaldo, 1998: 28)

Other issues that emerged at the end of the Cold War and which were a result of the impact of globalisation; were the preservation of cultural heritage and the role of the Internet in development. NWICO had called for the preservation of cultural identity recognising that "promoting the conditions for the preservation of the cultural identity of every society was [is] necessary to enable it to enjoy a harmonious and creative inter-relationship with other cultures" (MacBride, 1980: 259).

As a result of these events, development programmes now needed to embrace freedom of expression, democracy, equal access to communication whilst preserving cultural heritage. The 3Ds or Diversity, Dialogue and Development emerged as a result of the end of the Cold War and the increased awareness by development practitioners of the impact of globalisation on development. This coupled with a rise in religious and

ethnic fundamentalism and conflict brought a renewed emphasis on sustainable development and the importance of recognising the role of culture in development.

Sustainable development was taken to refer to not only the environment but cultural heritage and within this paradigm culture was viewed as the "foundation of human existence" (Schafer, 2002/2003: 13). Thus cultural development was considered to be the basis for any development programme. The 3Ds, in contrast to Modernisation, emphasised that development is not only measured in terms of economic growth but is also a means of achieving a more satisfactory intellectual, emotional, moral and spiritual existence (Stenou, 2002/2003: 1). The preservation of culture and diversity are thus considered important factors in development. There is a need to preserve diversity in the face of a "global culture" that is built on uniformity rather than diversity (Schafer, 2002/2003: 7).

Within this paradigm the impact of globalisation on development is recognised and is acknowledged as having a cultural dimension. The paradigm argues that a paradox exists where globalisation simultaneously threatens and advances culture and diversity. The Internet, for example, offers a unique opportunity for groups to disseminate information about their cultural heritage and learn about other cultures (Montiel, 2002/2003: 34). However, issues of access to the technology have restricted the scope of the Internet in this respect.

In relation to communication, this paradigm focuses on new communication technologies, the role of mass media conglomerates and the issue of access. According to Montiel, there is a need to question how new communication technologies can contribute to a multicultural dialogue (2002/2003: 21). Montiel argues that the lack of access to new technologies limits the ability for a country to be included in the global culture (2002/2003: 36). Thus development programmes need to encourage the establishment of cultural policies which will allow these countries access to public information (Montiel, 2002/2003: 36). Thus this paradigm, like 'Another Development', advocates a bottom-up rather than a top-down approach to development and, unlike Modernisation, does not focus solely on the economic benefits of development but argues for a cultural approach.

The paradigms of Dependency, 'Another Development', DSC and the 3Ds discussed above represent only a few of the approaches to development that evolved following the end of the Second World War in Europe. The context from which these development paradigms arose is considerably different to that of the 1940s when

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Modernisation took shape. "Today, themes such as diversity, human welfare, community-orientated participatory initiatives, and transparent modes of collective action reflect the new priorities" (Honadle, 1999 in Melkote and Steeves, 2001: 157) thus development in the 21st century needs to reflect these and other concerns relevant today.

Modernisation as it was applied during the 1950s and 60s has been shown as a development approach that ignored important contextual factors such as culture, religion, gender issues and participation by the developing community in implementing and determining their development. It was undoubtedly biased towards Western ideas and goals with an emphasis on the transfer of technology. However, Modernisation cannot be ignored when analysing modern development projects. Economic growth is still a key indicator of development and nations, including South Africa, are still often judged by their ability to participate in the global economy. As a result the productive resources such as capital, labour, land and natural resources, technology, infrastructure and entrepreneurship (Melkote and Steeves, 2001: 75) highlighted in Modernisation are still elements that need to be considered in any development programme – just as the participatory and social elements highlighted need to be considered when analysing a development programme. The alternative approaches to development, according to Melkote and Steeves (2001), are characterised by pluralism, equity in the distribution of information and other benefits; participation from the grassroots level, independence for communities to adapt development programmes to suit their objectives and the recognition of traditional methods and modern technology as valuable in the development of the community (Melkote and Steeves, 2001: 199). By combining the need to develop the productive resources outlined in Modernisation and the characteristics of the subsequent paradigms, one is able to analyse modern development projects within a theoretical framework.

This thesis aims to examine a development project in practice and as a result, it is important to factor into the analysis all the paradigms discussed above when examining the Education Centres as a model for delivering ICT and skills development to communities in South Africa. In this analysis, four key areas have been identified to form a conceptual framework for the analysis of these centres. These areas are economic and social-economic improvement (embracing the Modernisation paradigm's focus on the development of productive resources); sustainability (drawn from the paradigms of Dependency Theory, 'Another Development', the theories of Paulo Freire

and the 3Ds); participation (a key feature of all the paradigms post-Modernisation) and access (highlighted by Dependency Theory and emphasised in the recommendations by NWICO). The Education Centres project is thus examined in relation to these four areas, the influence of Development Communication theory on these areas and the context of the development project. This context embraces the role of technology and education in development within South Africa and the question of the digital divide. Both technology and education are key elements of the Education Centres project and the following chapter will outline the role of technology and education in development. It will also explore the digital divide in South Africa and introduce the centre concept as a means of delivering ICTs to communities.

SECTION B: TECHNOLOGY AND DEVELOPMENT

Today technology is inseparable from modern living and Information Communication Technologies are a key factor in a nation's ability to compete in the global economy. Since the period of Modernisation in the 1950s and 1960s, technology has been considered a vital aspect of development. It is the approach to the distribution and application of technology in the developing world that has shifted with the various development paradigms.

Closely related to the application of technology in the developing world is the role played by communication media in the integration of technology into developing societies. This has evolved from linear models such as the hypodermic needle approach to the diffusion of innovations to the more participatory approaches of more recent development projects.

Modernisation and Technology

During the period of Modernisation, technology was seen as a vital ingredient for the Third World's development. Traditional methods and practices were dismissed in favour of the 'better' Western methods. This became known as the pro-innovation bias (Melkote and Steeves, 2001: 54). As with the mass media, technology could also be described as an index and an agent for change and, during the Modernisation period "was viewed as central to the growth of productive agricultural and industrial sectors" (Melkote and Steeves, 2001: 77). Foreign experts and Western technological know-how were considered "crucial for development in Third World nations" (Melkote and Steeves, 2001: 77).

Technology within the Modernisation paradigm was viewed as a "value-free and politically neutral asset" (Servaes, 2002: 25). This meant that little consideration was given to the effects of this technology on current or 'traditional' practices and questions of access and applicability were ignored. This technologically deterministic approach was characterised by different viewpoints on the use of technology. Whilst it was viewed optimistically as a solution to all problems it was also considered by others as the source of all problems. It was also seen by many as an "irresistible as well as overwhelming force in development" (Servaes, 2002: 25).

Despite these various perspectives, the transfer of technology was a key characteristic of the Modernisation approach and emphasised the transfer of innovations. This pro-innovation bias assumed that Western tools, techniques and approaches were superior to the traditional practices that were being used by the developing world (Melkote and Steeves, 2001: 54).

The problem with the transfer of technology approach was the assumption that supplying Western technology would equate to development. Important issues such as how universal access to the technology would be assured and who had control and power over the distribution and application of the technology were not sufficiently addressed in the dominant paradigm. As a result, the input of new technology did not necessarily benefit the developing communities – as Servaes notes "in reality, one often observes that technologies are under the control of those with power and are used in ways consistent with those interests" (Servaes, 2002: 30). It was only after the failure of Modernisation had been acknowledged that development practitioners sought to modify the technological deterministic approach to consider the issues of access, control and applicability.

Communication and Technology

Communication models such as the hypodermic needle and the diffusion of innovations were used to 'inform' the development community of Western innovations and to encourage the adoption of these technologies. Rogers (1969), conducting research in Columbia, observed that a diffusion process was necessary for the innovation to be adopted by the community. In order for change to occur new ideas must be created (either within or outside the social system under scrutiny); they must then be spread to all members of the system and "through adoption (or rejection) of the new idea, the structure and function of the social system are altered" (Rogers, 1969: 5). The premise was simple – persuasive communication would lead to the adoption of technological innovations and thus result in individual and national development (Melkote and Steeves, 2001: 56). However, as discussed earlier, this approach to the transfer of technological innovation was not successful and did not equate to development. The more participatory approaches advocated post-Modernisation recognised that not only did the goal and focus of Modernisation need to change but that

the attitude and approach to technology and its role in the development process too needed to change.

Communication research post-Modernisation revealed flaws in the linear models of information flow. It pointed to the need for "considerable refinement to account for differences in context and audience demographics" (Melkote and Steeves, 2001: 30). The convergence of computers, satellites and digital technology to create Information Communication Technologies (ICTs) led to increased arguments regarding about the power of these new technologies "to deliver information, set agendas, persuade, socialize, educate, satisfy myriad audience needs and democratize societies" (Melkote and Steeves, 2001: 31). ICTs can be described as

> a shorthand for the computers, software, networks, satellite links and
> related systems that allow people to access, analyse, create, exchange
> and use data, information, and knowledge in ways that, until recently,
> were almost unimaginable. It refers to the infrastructure that brings together
> people, in different places and time zones, with multimedia tools for data,
> information, and knowledge management in order to expand the range of
> human capabilities. (The Association of African Universities, 2000 in
> Herselman and Britton, 2002: 270)

The approach of the Modernisation practitioners resulted in a failure to contribute to significant development in rural areas and was attributed to, amongst other reasons, a "lack of an effective system for delivering knowledge and skills" and this was seen as preventing them from "taking advantage of productivity-increasing and, therefore, income-generating techniques and technologies" (Melkote, 1991: 231) and thus the technology of the time was not used effectively to 'expand the range of human capabilities'.

Melkote (1991) argued that the failure of communication projects to stimulate development was a result of the "top-down and authority-driven" nature of the projects (1991: 233). Thus in contrast, 'Another Development' and Development Support Communication sought to take a more participatory or small-scale media approach to development. The emphasis on participation with regards to communication was echoed in the need for greater community involvement in the transfer of technology.

The emphasis on a more participatory approach to communication and technology in development also formed part of the NWICO recommendations outlined in the MacBride Report. The MacBride Report acknowledged that new technology offered developing countries "new opportunities"; however, it noted that as a result of the then current political and economic reasons, these technologies were not "within the reach of

everyone" (MacBride, 1980: 31). Aware of the negative impact of the technological transfer adopted during the Modernisation era, the commission argued for the need to "determine how these technological developments can be of the greatest benefit to all nations" (MacBride, 1980: 31). NWICO's recommendation was for greater participation by developing countries in the exchange, control, monitoring and development of technology and information, especially in relation to communication technologies (MacBride, 1980: 261). However, the withdrawal of the United States, the United Kingdom and the USSR from NWICO meant that most development projects continued to ignore NWICO's recommendations with regard to communication and technology in the developing world.

Despite the failure of NWICO, other development paradigms in the 1980s did attempt to address the issues of participation by the developing communities in their own development. There were a number of reasons that contributed to this increased awareness. Bamberger (1988) in Melkote (1991) identified four key factors that provided the drive for recognising the importance of community participation in development projects. These were firstly, evidence from World Bank projects of the positive impact of community participation on the efficiency of the projects; the fact that national and local governments were finding it increasingly difficult to manage the numerous development projects thus opening up the opportunity for non-governmental and community organisations to become involved. Also the decision by non-governmental and several UN agencies to make their development objective the empowerment of developing communities by providing greater access and control over their resources and finally, the increased awareness and sensitivity of gender issues and thus the acknowledgement of the role of women in project design and management (Bamberger, 1988 in Melkote, 1991: 236).

The concept of participation was becoming increasingly a key element of development initiatives. Participation as a process and approach however, needed clarification. Ascroft and Masilela (1989) recognised that participation in operation ranged from what they considered as "thinly-veiled reincarnations of the dominant paradigm – the *participation-as-a-means approach* – to those which genuinely represent the case for the basic needs paradigm – the *participation-as-an-end approach*" (Ascroft and Masilela, 1989 in Melkote, 1991: 237).

The participation-as-end-approach argues that participation should be recognised as a basic human right (Melkote, 1991: 237). Activities within this approach

ranged from attempts to mobilise people to cooperate in development activities to empowering the people to "articulate and manage their own development" (Melkote, 1991: 237).

Human rights re-emerged as a key feature of development with the third general UNESCO conference in 1989. A further key issue that was raised along with greater participation by countries in their own development was the question of the flow of information. In the Third Medium Term Plan drafted by UNESCO from this conference, UNESCO delegates recognised that "the situation in the information and communication field was one characterized by inequalities in the flow of information and by strong feelings in the developing countries regard the false, distorted and in any case inaccurate image that was given of their national reality" (UNESCO, 1989 in Arnaldo et. al, 1998: 27).

Linked to the questions and issues raised by the flow of information were the emergence of new communication technologies and most notably, the role of the Internet in development. The emergence of the 3Ds (Diversity, Dialogue and Development) paradigm of development saw development practitioners echo the call of NWICO for the need to "manage new information technologies to reduce negative impacts and encourage their utilisation in favour of education and culture" (Montiel, 2002/2003: 22). Thus these new communication technologies or ICTs became a feature of development practice.

Information Communication Technologies

Communication has always played a key role in development and with advances in modern technologies, the nature of communication changed. The emergence of digital communication technologies resulted in the new information technologies or ICTs (Information Communication Technologies) and as a result of the emergence of these ICTs, the issues of application and access became features of development practice.

Since the 1950s there has been an awareness of the importance of access to communication in relation to development. During the Modernisation period, theorists such as Wilbur Schramm (1964) recommended that specific amounts of Western communication technologies be transferred to the South. These indices were identified as "ten daily newspaper copies, five radio receivers, two cinema seats, two television receivers for each 100 persons in the population" (Schramm, 1964 in Nulens, 2003: 72).

It was felt that the application of these communication media would result in development, mass media was viewed as "both an index and agent of change in a total social system" (Lerner, 1958: 56). In the 1970s the use of information communication technologies increased and with the increased use of computers and digital technologies, began to grow beyond the communication media identified by Schramm. Melkote and Steeves (2001) note that during this period that there was a significant increase in the use of information communication technology in the developing world (Melkote and Steeves, 2001: 257).

In the 1990s, with the increased emergence of digital communication technologies and the advent of the global information society, it was argued that the new communication media had great potential for economic and social development (Nulens, 2003: 73). The Modernisation paradigm approach was echoed in the massive transfer of new ICTs to the developing world (Nulens, 2003: 73) and like technology, ICTs were perceived as "tools that can solve the current global problems" (Nulens, 2003: 73).

When discussing ICTs and the digital divide, the tendency is to focus on the Internet and its role as a communication technology. Revisionist theorists such as Deane et. al (2003) argue that it is the other "ICTs" of radio, television and the press "that determine, far more than the Internet, the type of information people get and the raw material they bring to bear in constructing and reconstructing our world" (Deane et. al, 2003: 65). This is a valid point and the role of other media in development is an important topic for discussion, however, in the context of the Education Centres project, the project predominantly makes use of access to PCs (personal computers), fax machines and photocopiers and in the future the Internet and thus will not explore issues of access to the ICTs of radio, television and press.

Globalisation and ICTs

The changing society and the emergence and impact of globalisation had a direct bearing on the distribution and perception of ICTs. Globalisation can be described as the "process by which societies are connected through rapid, large-scale networks of political, social and economic interaction" (Lelliott, Pendlebury and Enslin, 2001) and it is this increased interaction that has changed the nature of communication. The development of Information Communication Technology has reflected the change in

nature of "political, social and economic interaction" (Ibid, 2001) and consequently the nature of development.

ICTs, and notably the Internet, have been described by the United Nations as a "means for poor countries to leapfrog stages of development" (Mtimde & Stephen, 2001 in De Beer, 2001: 135). Melkote and Steeves recognised that the Internet can be used to support rural development in areas such as agriculture, community development, health and other applications, in encouraging participatory communication, small business development and in news sharing amongst developing countries (2001: 258 – 259). The Internet offers easy access for millions to a wealth of knowledge; however it cannot be regarded as a quick fix and neither is it without its own challenges.

Constraints of ICT in Development

Although there is a strong argument for the need for greater ICT applications in the developing world, the argument that it can assist developing countries to "leapfrog several stages in their development process" (Nulens, 2003: 68) is debatable.

The optimistic perception argues that access to ICT will solve many of the social and developmental problems and "the development of disadvantaged communities in the South could be accelerated by the provision of ICT access in ICT based community centres" (Snyman and Snyman, 2003: 98). However, according to Melkote and Steeves (2001), there are insufficient analyses of the challenges faced by the rural poor in effectively harnessing the benefits derived by the use of ICTs (2001: 263).

The argument that ICT does not equate development echoes the pro-technology bias of the Modernisation period. As argued by Melkote and Steeves (2001), ICT alone does not equate to development (2001: 263), it should however, be utilised to "enhance and support the communication process" (Grossberg, Struwig and Tlabela, 1999: 100). "ICT in this context is not about technology, but about supporting life processes. Information (through technology) cannot be the starting point of a developmental project but should be seen as a means to achieve the ultimate goal of development" (Grossberg, Struwig, Tlabela, 1999: 100).

Another argument against ICTs as a quick-fix solution to the development problems of the Third World is the critique that ICTs have served to consolidate power relations. "Not only are the technologies spread throughout the world, Western content and cultural habitudes are exported as well, which can lead to material dependency and

cultural synchronization" (Nulens, 2003:69). The fear is that these ICTs will reinforce the homogenisation of culture this is a key concern for many development practitioners especially those writing within the 3Ds paradigm. The 3Ds argue strongly for the preservation of culture in development, "cultural diversity is under threat from globalisation as homogenisation of tastes, values and languages creates a greater market for consumption of cultural products as commodities (Montiel, 2002/2003: 33). In the UNESCO Declaration on Cultural Diversity, culture is argued as a human right and that it is fundamental that all cultures should be able to express themselves and make themselves known (UNESCO, 2002/2003: 186 – 189). An awareness of the cultural context in which ICTs are applied is thus important to prevent continued cultural homogenization. Nevertheless, the argument stands that ICTs remain an essential element of development in the Third World. However, what does need to be considered is how ICTs can be applied effectively in developing countries. It is here that the use of ICT in development faces further challenges.

Amongst the main challenges facing the application of ICT in development and particularly rural development is access to technology (infrastructure, skills, cost of access); access to available information (user skills, literacy, relevance of material) and the issue of sufficient resources to use or apply the new information and knowledge (Melkote and Steeves, 2001: 264).

Access to ICTs and a lack of infrastructure is a major constraint in the successful application of ICT in development. From as early as 1984 the International Telecommunications Union stated that there was a divide in access to telephony and that everyone should have a "right to communicate and should have access to basic telephony (International Telecommunications Union, 1984 in Nulens, 2003: 73). Despite numerous projects and initiatives, access to telephony and the Internet in the developing world is significantly lower than in the developed world.

According to Montiel in 2003, 80% of the world's population has no access to any Internet connection (Montiel, 2002/2003: 32 – 33) and of the 300 million computers used worldwide, only 1% are in Africa, despite being home to 12% of the world's population (De Beer, 2001: 142). Although the digital divide has been shrinking, statistics published by the International Telecommunication Union (ITU) show that in 2004, the developing world still has less access to fixed lines, mobile phones and the Internet than developing countries. In terms of fixed and mobile telephones, the developing world has 4 times fewer fixed telephones and four times fewer mobile subscribers per 100 people. In

relation to access to the Internet, in 2004 the developed world still had 8 times the Internet user penetration rate compared to the developing world (ITU, 2005a).

A major stumbling block to this access to ICTs in the developing world is cost. "Africa's telecoms, internet and broadband costs continue to be the highest in the world" (OSISA, 2006: 1) which puts access to ICTs beyond the reach of most Africans. This is exacerbated by insufficient resources which are another obstacle for the application of ICT in Africa. Africa has the world's least telephone lines, high illiteracy rates and also lacks basic amenities in many areas (Grossberg, Struwig and Tlabela, 1999: 85). All of the above factors impact on the socio-economic development of the continent and the sustainability of development (Ibid, 1999: 85).

The next set of potential constraints includes the issues of literacy, language and knowledge of technology. "Some prior knowledge is necessary to locate and evaluate the importance, utility, and relevance of the information received" (Melkote and Steeves, 2001: 264) and there is also the issue of trust between the sender and receiver. Much of the information received by the source may be relevant only if they sender and receiver share a common culture. If the receiver feels alienated by the information they are receiving they are less likely to accept the new information or take the risk of using it (Melkote and Steeves, 2001: 264). The fact that the majority of Internet content is generated in North America often means that not only has it little reference to an African context and cultural imperialism is perpetuated through these new communication technologies. The effect of this can make developing African countries feel that this content is corrupting the traditional indigenous cultures (Heeks in Herselman and Britton, 2002: 271). ICT, therefore, has the potential to alienate those it is meant to assisting in development (Herselman and Britton, 2002: 271).

These constraints offer many challenges for development practitioners and thus how ICT is applied in a developing community needs to be considered carefully. Conradie, Morris and Jacobs (2003) suggest three actions to consider when establishing ICTs in developing countries. These are:

- Establish an ICT infrastructure that is reliable and affordable;
- Introduce and develop ICT applications that are responsive to local needs. Also ensure local capacity to adapt ICT applications to local conditions; and
- Introduce relevant and supporting regulation or measures to enable the first two actions mentioned above (2003: 201).

Intermediary organisations also play a key role in overcoming the constraints of ICT in development. Melkote and Steeves argue that in order for ICT to contribute to

development and due to the fact that often rural communities are not be able to access the technology directly, the "greatest potential for the use of ICTs in rural development, then, lies with intermediate organisations" (2001: 266). These organisations offer a resource bridge over the gaps rural communities might face in utilising ICTs. Ideally the aim is for the communities to take ownership and control over the design and use of ICTs in their own development. It is only through this direct involvement with the technology by the community that they will be able to benefit the most from them (Melkote and Steeves, 2001: 267).

These same constraints apply to the development of the Internet in the developing world. Access, infrastructure and homogenization of culture are all key causes for concern when discussing the Internet as a development tool and De Beer raises a further potential constraint – that of censorship in the application of the Internet in Africa (De Beer, 2001). It is important to note that despite the size of Africa, in 2004 the Internet penetration was just 3%, eleven times less than in Europe (ITU, 2005a). As Melkote and Steeves observe "the promises offered by the Internet and other new information technologies will remain incomplete until they are deployed to cater to people on the other side of the digital divide" (2001: 259).

The Digital Divide

One of the greatest criticisms levelled at ICTs has been the emergence of a digital divide. The digital divide refers to "the gap between the access of individuals, households, organisations, countries and regions at different socio-economic levels to ICTs and Internet usage" (Lesame, 2005: 3). There is no doubt that ICTs offer many positives to development. They have the potential to facilitate development across a range of areas such as agriculture, health, small and medium business creation, enhanced community development and participatory communication (Melkote and Steeves, 2001: 258 – 259). Not only do they offer the potential to disseminate important practical information on agriculture, health and education but they are also essential for developing countries if they are to be regarded as part of the global information economy – "improvement of life is determined by one's ability to take part in the global information society" (Kutu Mphahlele and Maepa, 2003: 218).

The key role played by ICT in development and the developing world's current position in the global arena has highlighted the issue of the digital divide. The digital

divide is the common term used to describe the discrepancy in access to ICTs between the information technology haves and have-nots. The information haves generally being the developed world and the technology have-nots the Third World – areas of Asia, Latin America and Africa.

This divide is especially a concern for Africa and development practitioners argue that

> in order for Africa to sustain its democracies, empower its communities, ensure community driven reconstruction and development, and to compete globally, investment in technological advances and telecommunications infrastructure is essential to close the digital gap and allow Africa its rightful place among the economies of the world (Mtimbe and Stephen, 2001: 18 in De Beer, 2001: 136).

Castells (1998) described the emergence of a 'fourth world', made up of large parts of Africa, South America and Asia, that is without the necessary information technology. He argued that without this access, these countries would become excluded from the global network economy (in Melkote and Steeves, 2001: 64). Castells also argued that the increased role of technology and the rise in what Castells termed "informational capitalism" had resulted in an increase in poverty for large parts of the developing world (Castells, 1998: 81). In the case of Africa, the last two decades whilst most of the world has established itself as part of the of global economy, Sub-Saharan Africa has experienced "a substantial deterioration in its relative position in trade, investment, production, and consumption vis-à-vis other areas of the world" (Castells, 1998: 83).

The developing world's lack of access to information technology has placed them at an increasing disadvantage. The possible implications of this exclusion could result in the developing countries losing the opportunities to develop new markets for trade or lose the opportunity to grow, "even worse, there is a risk of an increase in social and economic turmoil that could result from the exclusion of the majority of the world's population from the New Economy. These consequences could harm local, regional and international stability" (Planting, 2000 in Herselman and Britton, 2002: 271).

The digital divide has resulted in development agencies and the United Nations recognising the need to improve the access and infrastructure for the developing world so that they might gain access to the benefits of ICTs, better education and poverty reduction. Various goals have been set in order to address these issues including the Millennium Development Goals. These goals arose out of the United Nations Millennium Declaration of September 2000 (United Nations, 2000a). This declaration presented

various goals[7] for nations to assist them eradicate poverty and deal with the impact of globalisation (United Nations, 2000a: 1- 2). The eighth goal calls for a global partnership for development which includes making available "the benefits of new technologies – especially information and communication technologies" (United Nations, 2000a). Another project aimed at improving the use of ICTs in development is the World Summit on the Information Society (WSIS). WSIS took place in Geneva, Switzerland in 2003 and the objective of this first phase summit was "to develop and foster a clear statement of political will and take concrete steps to establish the foundations for an Information Society for all, reflecting all the different interests at stake" (ITU, 2006d). The second summit in Tunis in 2005 was to follow-up on this objective (ITU, 2006d). The WSIS Plan of Action highlights issues such as the role of stakeholders, infrastructure, access and capacity building (amongst others) in the application of ICTs for development (ITU, 2003).

Offering access to ICTs to communities and schools forms part of the Education Centres project. The project thus attempts to address the issues raised by the Millennium Development Goals and the WSIS Plan of Action. It also makes use of the centre approach which has been a common approach for improving community access to ICTs. The following section explores the digital divide in South Africa and introduces the Education Centres project and its development objectives.

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[7] The goals which relate to the Education Centres are discussed in more detail in the next chapter.

SECTION C: EDUCATION AND DEVELOPMENT

Education, which can be defined as a "diverse approaches to the acquisition of knowledge and skills" (Ansu-Kyeremeh, 1994: 3), has always played a crucial role in development. In this chapter the role and importance of technology in development has been discussed as well as the issue of the South Africa and the digital divide. The Education Centres project, however, does not only aim to address issues of access to technology to facilitate development but is also focuses strongly on improving education delivery across KwaZulu-Natal. In fact, one of the key functions of the application of ICTs within the Education Centres project is to facilitate improved education delivery.

In relation to Development Communication Theory, Modernisation development practitioners recognised the fundamental role of education in development. They saw that in order for the developing world to 'catch up' to the developed world, these developing societies would need to acquire knowledge and skills.

The Modernisation paradigm was characterised by a functionalist approach to society and according to functionalism,[8] "all social institutions in a society are interdependent, a change in one social institution will cause a change in the others" (Rogers, 1969: 9). This, when applied to education, meant that Modernisation communication practitioners believed that an improvement in education would result in improvements in other institutional arenas.

Modernisation development practitioners also highlighted literacy as a vital element of development programmes. Improvements in literacy, Lerner noted, would ultimately lead to increased media exposure and consumption (Lerner, 1958: 46). Therefore literacy was an important consideration in development as a result of its link to media consumption. As Lerner noted,

> the Western model of modernization exhibits certain components and
> sequences whose relevance is global. Everywhere, for example,
> increasing urbanization has tended to raise literacy; rising literacy has
> tended to increase media exposure; increasing media exposure has "gone
> with" wider economic participation (per capita income) and political participation
> (voting) (Lerner, 1958: 46)

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[8] Functionalism is characterised by a 'rational' approach to education and a positivist epistemology (Boshier, 2005).

Modernisation not only saw education and particularly literacy as important in increasing media exposure but that the mass media could also play the role of educator. According to Lerner,

> the mass media, by simplifying *perception* (what we "see") while greatly complicating *response* (what we "do"), have been great teachers of interior manipulation. They disciplined Western man in those empathic skills which spell modernity. (Lerner, 1958: 54).

Communication theorists during the period of the Modernisation paradigm thus visualised a "positive functional role for Western mass media in education and development in countries such as those of Africa" (Ansu-Kyeremeh, 1994: 15) and together the mass media and education during this period were assigned the task of "building human capital" (Melkote and Steeves, 2001: 117).

Education also had a key role to play in developing labour. Modernisation theorists argued that labour in the developing world could be improved by "improving its physical and mental capacities" (Weaver and Jameson 1978 in Melkote and Steeves, 2001: 76). These capacities were to be developed through institutional programmes and training (Schultz 1963 in Melkote and Steeves, 2001).

Ansu-Kyeremeh identified two approaches to media application in rural education and development during the period of Modernisation. These were the UNESCO – Schramm approach and the Diffusion Model (1994: 16). The UNESCO – Schramm approach focused on the transplanting of "Western-originated technological media, concepts and human expertise for application in developing societies" (Ansu-Kyeremeh, 1994: 16). This approach initiated a two phase dependency. Initially developing countries would procure communication hardware from external industrialised countries. Media resources would be then concentrated in the cities and villages would be dependent on the cities (Golding 1997, Tunstall 1977, Hedebro 1982 and Stover 1984 in Ansu- Kyeremeh, 1994: 16).

The Diffusion approach developed by Rogers (1967) focused on the two-step communication process in which change-agents carried educational messages created outside the villages to villagers utilising opinion and decision leaders in the villages to communicate the information. The result of this approach was a system of early adoption of innovation by a minority followed by a later adoption by the majority (Ansu-Kyeremeh, 1994: 17). Both models were characterised by the central views of Modernisation theory and assumed that development and education in rural communities could only be facilitated through the application of Western media systems

and Western development measures (Ansu- Kyeremeh, 1994: 17). This meant an emphasis on the Western culture which was characteristically "scientific, cognitive, analytical, abstract, written and, production-efficient" (Ibid, 1994: 17) and a communication approach that, as discussed earlier, was top-down and uni-directional rather than participatory.

The Modernisation approach to rural education and communication was criticised as being a technologically deterministic approach. This approach took a simplistic view of the developing community with a distinct lack of emphasis on cultural factors (Ansu- Kyeremeh, 1994: 19 – 21). Schramm, at a later stage, did recognise the importance of cultural factors, however, he still emphasised the use of technology based media systems (1994; 19 – 21). The perception was that traditional conditions were a result of low media patronage and illiteracy. Rogers (1969) and Lerner (1958) therefore argued that modern media were the educational channels that could lead to modernisation (in Ansu- Kyeremeh, 1994; 20). This argument for the key role played by modern media in education in the development context can be used to support the argument for the role of ICTs in education today. According to the Department of Education's 2006 document on Teacher Education and Development, ICTs (especially in distance education) if "wisely used, offer immense promise of widening access to teacher education programmes, improving learners' motivation, speeding communication and enriching the resources available for learning" (Department of Education, 2006: 15).

Thus the Modernisation paradigm still influences modern development projects in relation to education. The subsequent paradigms that arose in response to Modernisation also influenced the perception of the role of education in development. In contrast to Modernisation theorists, Dependency theorists argued for a more holistic approach to education, the communication media and development. Their approach challenged the notion that the media had an independent capacity to effect change instead they argued that the power structure of society was crucial in determining the goals and processes of education and development (Ansu- Kyeremeh, 1994: 21 – 22).

Whilst development practitioners sought to find alternatives to Modernisation, new approaches to education emerged. One of the most significant responses to Modernisation in respect of education was the work of Paulo Freire. Freire identified that education could result in either the domestication of or the liberation of the oppressed.

Freire argued that 'banking education' was the foundation of oppression (Taylor, 1993: 53). Banking education focussed on the passivity of the learner who was

regarded as an object into which knowledge is 'deposited' (Taylor, 1993: 54). Feedback and interaction in this approach is discouraged and the teacher assumes the role of the expert. The contrast to this is 'liberating education'. 'Liberating education' is a dialogic form of education and arises from the statement that "education is not neutral 'because it is always an action either for the domestication of people or for their liberation'" (Freire, 1985 in Taylor, 1993; 53). Liberating education is a dialogic approach to education where people are encouraged to engage in a dialogue with one another and thus reach conscientization. It is as conscientised people that "we take the role of agents, makers and remakers of our world" (Freire, 1971 in Taylor, 1993: 53).

Freire's approach to education contrasted to the Modernisation approach. Whereas Modernisation prescribed an education process that discouraged feedback or learner input, Freire in contrast, argued that people's consciousness should be raised through dialogue and thus allow them to define their own problems (Freire, 1985: 86 in Ansu- Kyeremeh, 1994: 29). According to Freire, "education is communication and dialogue" (Freire, 1981: 139 in Ansu-Kyeremeh, 1994: 29).

Communication and education have always been closely linked. The New World Information and Communication Order (NWICO) argued that "the expansion of various forms of mass communication and in particular of audio-visual communication, combined with the spread of informatics" opened the links between education and communication (MacBride, 1980: 25). These proponents saw the educational potential of communication and that "endowed with a greater educational value, communication generates an "educational environment"" (MacBride, 1980: 25). Supporters of NWICO saw the potential for education and communication to work together for development. Firstly, they recognised that information and communication had an educational value and could impact on intellectual development and in the Third World, they argued that "school is equated with media" (MacBride, 1980: 26). Secondly, they viewed the pervasiveness of media in society as a sign of the "emergence of a new framework for the personality, with a strong educational flavour" (MacBride, 1980: 26). This referred to the increased awareness by citizens of the information and educational potential of media and thus their greater access to knowledge. The third point they raised with regards to the relationship between communication media and education was that the information is presented in a "chaotic" manner thus encouraging stereotypes (MacBride, 1980: 26). Fourth was the question of the role of the school in relation to the media as

the media continued to provide increased access to information. This point raised the question of the need to teach the proper use of communication.

The MacBride commission hinted at the need for education to acknowledge the impact and role of communication and to guide communities in interpreting the information. In their recommendations, the commission called for the educational and informational use of communication to be given equal priority as entertainment and that simultaneously, education systems need to prepare their students for the impact of communication activities. This would allow students to better understand reality (MacBride, 1980: 256).

The distinguishing feature of the 3Ds paradigm of development is its emphasis on the importance of preserving culture in development. Thus when referring to education, this paradigm emphasises the need to offer opportunities for people to learn about other cultures. Schafer argued that this is imperative if we are to maintain diversity and invest in sustainable development (2002/2003: 18). He advocates that opportunities must be created for people to learn about "culture, cultures and civilizations in the formal educational system from the earliest years of childhood to the latest years of adulthood" (Schafer, 2002/2003: 19).

Not only is the question of cultural education acknowledged but the paradigm also recognises the need for digital literacy. Amongst the main lines of the Action Plan for the Implementation of the UNESCO Universal Declaration on Cultural Diversity is the call to encourage digital literacy and thus "ensuring greater mastery of the new information and communication technologies" (UNESCO, 2002/2003: 190). It is important to highlight the question of digital literacy as one of the features of the Education Centres project is computer literacy skills training. The importance of this training and access to ICTs and digital literacy will be discussed in the final chapter.

Education and Development in South Africa

As discussed, education has been a key feature of development and its role is highlighted most notably in the work of Paulo Freire, NWICO and the 3Ds. Just as development practitioners during the period of Modernisation recognised the importance of building human capital in development in the 1950s, the emphasis on the role of education and skills building is still a key feature of current development projects.

Within the South African context, skills development and the building of human resources has been recognised as fundamental to the country's development. Lesame (2005) argues that "there are still thousands of people in South Africa with no formal education" (2005: 4) and "illiteracy in the developing world is a fundamental barrier to participation in knowledge societies" (Mansell and When, 1998 in Lesame, 2005: 4). Statistics from 2003 reveal that 17.9% of South African's above the age of 20 have no schooling (Statistics South Africa, 2003 in Lesame, 2005: 5). This means that one in every five adults cannot read or write and a further one in six adults are functionally illiterate (2001 General Population Census in Adult Learning South Africa, 2004). However, since 2001 these statistics have improved. In South Africa in 2003 95.6% of boys and girls in South Africa have completed primary school and literacy in the 15 – 24 year age group (boys and girls) was at 93.9% for 2004 (United Nations, 2006a).

Education and skills development are thus vitally important to South Africa's success and addressing this lack of basic education and skills is a national priority. As the South African Qualifications Authority (SAQA) notes "success, or even survival, in such a world demands that South Africa has a national education and training system that provides quality learning, is responsive to the ever-changing influences of the external environment and promotes the development of a nation that is committed to life-long learning" (SAQA, 2005). Conradie and Roodt (2003) argue that in order for South Africa to compete in the global knowledge economy "education and development must be based on a good foundation" (2003: 265).

This knowledge based economy is characterized by a reliance on the "use of ideas rather than physical abilities and on the application of technology rather than the transformation of raw materials or the exploitation of cheap labor" (World Bank, 2003: xvii). The World Bank report on Lifelong Learning in the Global Knowledge Economy (2003) observes that "developing countries and countries with transition economies risk being further marginalised in a competitive global knowledge economy because their education and training systems are not equipping learners with the skills they need" (2003: xvii). Therefore education and skills development are vitally important.

The South African government has recognised this need for skills development in South Africa and has taken various steps to improve skills development in the country, for example, the Skills Development Act (No. 97 of 1998). The function of this Act is to "provide an institutional framework to devise and implement national, sector and workplace strategies to develop and improve the skills of the South African workforce"

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(Skills Development Act, 1998). This Act and the subsequent establishment of Sector Education and Training Authorities (SETAs) and learnerships are some of the key features of the South African government's initiative to improve the skills shortage in the country.

The Education Centres project is an example of development project that aims to improve the skills of the South African workforce and the quality of education in schools around KwaZulu-Natal. The project a joint venture between the Media in Education Trust (MiET) and the KwaZulu-Natal Department of Education (KZNDE) and is aligned with the KZNDE's goals for education which include providing high quality, relevant education to learners, transforming schools in centres of community life and develop the professional quality of the teaching force (KwaZulu-Natal Department of Education, 2003: 6 – 7).

These centres aim not only to improve the socio-economic conditions of the communities where they are established but are also envisioned as "decentralised nodes for the delivery of quality education support services" (MiET, 2005a: 5). Amongst the objectives are goals to improve the delivery of "quality education programmes to school communities" and to "improve communication and the distribution of information resources to and from schools" (MiET, 2005a: 5). In order to fulfil these objectives, key focus areas of the project include skills training for teachers and members of the community in various subjects and improving the community and school teachers and learners' access to ICTs.

This access to ICT plays a key role in education and the quality of education delivery. According to the Schools Register of Needs Survey conducted in 2001, 70 percent of schools in South Africa did not have access to a computer (Conradie and Roodt, 2003: 266). ICT has the potential to play a key role in improving education and as a result helping bridge the digital divide between rural and urban. Herselman (1999) describes this divide in terms of the resource-advantageous (RA) and the resource-deprived (RD) and argues that as the resource demand for education increases with the development of technology, potentially an increasing percentage of the country could find themselves resource-deprived or RD (in Herselman and Britton, 2002: 270).

This resource divide only serves to deepen the rural-urban digital divide discussed earlier in this chapter and as a result there have been a number of projects which have sought to address this issue of education and ICT access – the Education Centres project is one such example.

CHAPTER 2: THE SOUTH AFRICAN CONTEXT

SECTION A: SOUTH AFRICA AND THE DIGITAL DIVIDE

"Of the estimated 800'000 villages without any kind of connection to ICTs, more than half are in Africa." (ITU, 2005b).

Castells (1998) argued that Africa faced an enormous challenge with regards to technology and development. He noted that "technological dependency and technological underdevelopment in a period of accelerated technological change in the rest of the world, make it literally impossible for Africa to compete internationally either in manufacturing or in advanced services" (Castells, 1998: 95). The challenges facing Africa in terms of ICTs as highlighted in the previous section are very similar to the challenges faced by South Africa. South Africa has acknowledged that in order to compete in today's current global economy the country needs to be as technologically advanced as the rest of the developed world. Bridging the digital divide for South Africa therefore, is a matter of economic survival. Currently South Africa lies far ahead of the rest of Africa in terms of ICT access. According to the ICT indicators listed for 2005 on the International Telecommunication Union (ITU) website, South Africa had 21 681000 fixed line subscribers, second in Africa to Egypt who had 24 025 800 subscribers (ITU, 2006b). South Africa also had the highest number of Internet users 3,300 000 ahead of Egypt who had 2,700 000 (ITU, 2006b). However, Africa still lags behind the rest of the world. "In 2004, less than 3 out of every 100 Africans use the Internet, compared with an average of 1 out of every 2 inhabitants of the G8 countries (Canada, France, Germany, Italy, Japan, Russia, the UK and the US)" (ITU, 2005b).

Although South Africa is ahead of most of Africa in terms of access to Internet and telephone lines, access to telephony services in South Africa is still a major stumbling block to the bridging of the digital divide. The 2001 census revealed that only 1.1 million households have a phone, 1.6 have a phone and mobile phone, over 2 million have cell phones and 4.3 million have access to public pay phones whilst 670 000 have no access to telephony (Stats SA, 2001 in Gillwald, Esselaar, Burton and Stavrou, 2005). This translates to an average of 46.9% of households in South Africa which have access to telephony compared to other lower middle income countries which average household penetrations of 49.9% (ITU, 2003 in Gillwald, Esselaar, Burton and Stavrou, 2005).

"Access to ICTs is regarded by government as important in enhancing the quality of life in rural communities" (Kutu Mphahlele and Maepa, 2003: 218) and thus since 1994, the South African government has recognised the need for South Africa to improve their competitiveness in the global economy and the need to implement measures to equalise the distribution of ICTs in the country. As discussed earlier, ICTs offer many benefits to communities. Snyman and Snyman (2003) note that ICTs can "play an important role in facilitating the upgrading of education, health care, recreation and other services, by improving the quality of information available and by providing communities throughout the country with access to expertise and usable information" (2003: 95). Past Minister of Telecommunications and Broadcasting, Jay Naidoo (1998) observed that "there is a direct, positive correlation between access to telecommunications and socio-economic development...telecommunications is no longer the consequence of development, rather it is a necessary precondition" (in Snyman and Snyman, 2003: 95). This direct correlation is represented by the Jipp Curve which reflects the correlation between teledensity and GDP (Gross Domestic Product) (IRDC, 2004). Figure 1 and Figure 2 on the following page show GDP per capita and connectivity in Africa and how South Africa compares to the rest of Africa. Although South Africa's GDP and teledensity is higher than most of Africa, the percentage of teledensity is still below 50% (IRDC, 2004). Thus in order to facilitate this socio-economic development, South Africa needs to address its own digital divide and the urban-rural divide. Despite having higher Internet usage than the rest of Africa, South Africa still faces a digital divide between urban and rural communities in terms of ICT access. This digital divide between rural and urban is a concern for South Africa as a developing country, "if the divide turns into a chasm, the ideal of sustainable economic development will not be realised and Africa will continue to be choked by poverty" (Nxasana, 2001 in Lesame, 2005: 1). The key issue in the urban-rural digital divide is the issue of access. Although Internet access is increasing in Africa and South Africa (the number of main lines in Africa is growing at approximately 10 percent per year) (Jensen, 2003 in Lesame, 2005: 8), Internet service providers tend to be concentrated in major cities and urban areas and rural communities are forced to access the Internet through long-distance calls which make connectivity expensive (Lesame, 2005: 8).
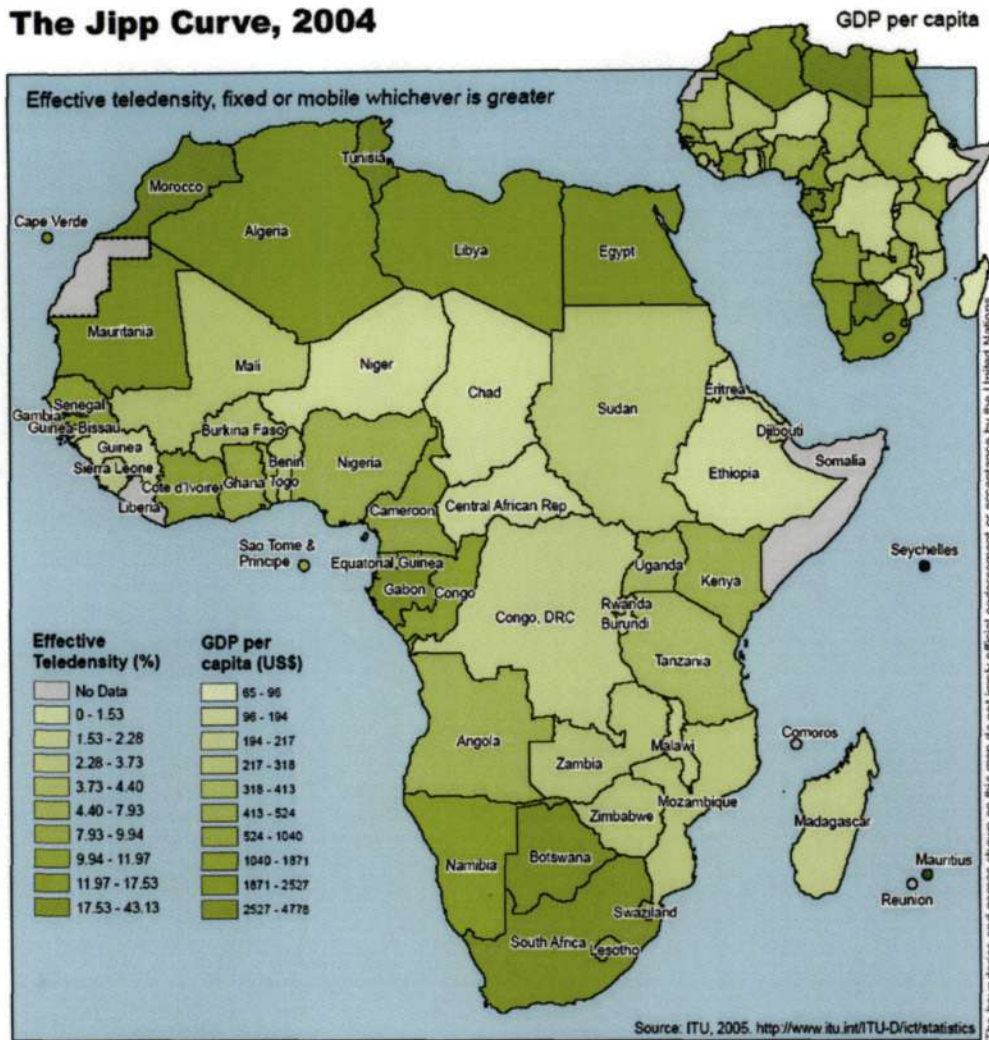
The Jipp Curve, 2004

Figure 1: Map showing effective Teledensity and GDP per capita in Africa
Reference: IDRC, 2004

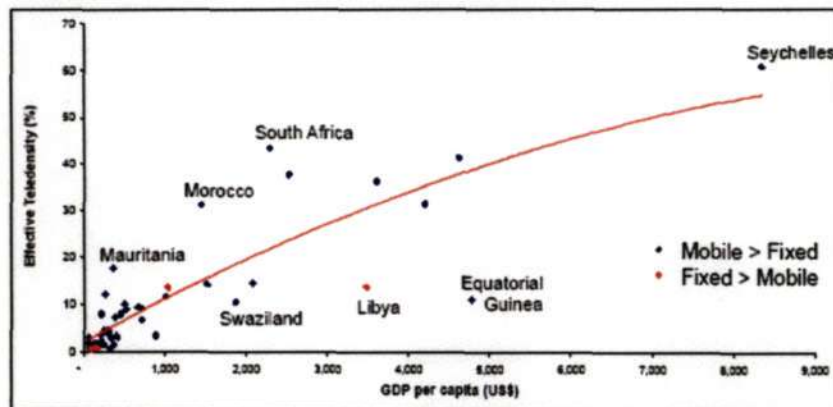The Jipp Curve: Correlation Between Teledensity and GDP, 2004

Figure 2: The Jipp Curve

Reference: IDRC, 2004

Although theorists such as Melkote and Steeves acknowledge that ICT should not be seen as a quick fix for development (2001: 263); there is a need for developing countries to acknowledge the benefits of ICT and implement programmes to bridge their own digital divides. South Africa faces similar constraints as other developing countries in bridging the digital divide. There are the issues of cost and sufficient skills as well as the question of rural access to a predominantly urban resource.

Melkote and Steeves argue that the potential of the Internet in rural development can only be explored when the digital divide has been bridged. This has resulted in a number of local-level projects utilising ICTs being introduced into rural communities (Melkote and Steeves, 2001: 259).

The South African government supports the argument that ICT access has a direct impact on socio-economic development (Van Audenhove, 1999 in Snyman and Snyman, 2003: 95) and thus ICT is a common feature and has formed the basis for many development projects. In 2002 South African Communications Minister Dr Ivy Matsepe-Casaburri declared that "ICTs present Africans with an opportunity to leapfrog decades of development" (Matsepe-Casaburi, 2002 in Lesame, 2005: 17) and since 1996 the South African government has implemented a number of initiatives that have attempted to address the constraints facing South African access to telephony and ICT. These initiatives have included:

- The Telecommunications Act No 103 of 1996.
- The establishment of the Universal Service Agency (USA). The functions of the USA include encouraging and facilitating telecommunication access and services to under-serviced communities (Mmusi, 2005: 155).
- The 1997 licence to Telkom which stipulated that Telkom had to provide 2,81 million new access lines in 5 years (1,67 million of which were to be reserved for under-serviced areas).
- The launch of Info.com 2025 in 1998 by the Department of Communication which aims to establish a networked information community. The objectives of which include universal access to telephone services, integration of ICT in the health care sector and increased access to the Internet in a defined percentage of schools.

- The establishment of the Government Communication and Information Services (GCIS) to focus on, amongst other areas, the effective use of information technology and the establishment Multi-Purpose Community Centres (MPCCs) to disseminate useful information about government and other matters to the South African public. (Snyman and Snyman, 2003: 98).

These are just a few examples of the steps the government has taken to improve ICT access in South Africa. There are however, other initiatives in the form of practical development projects that have utilised ICTs for development. Some examples of these include:

- The Teletuks project in conjunction with the University of Pretoria (Conradie and Roodt, 2003: 267). This project is a community-based project providing free educational satellite television to secondary schools (Conradie and Roodt, 2003: 267).

- The Department of Education's Schoolnet SA Project that aims to provide schools with Internet access (Conradie et. al, 2003: 200).

- The Department of Communication's Web Internet Laboratories (DOC-WIL) project at previously disadvantaged tertiary education institutions (Conradie et. al, 2003: 200).

- The Pretoria University's pilot project which investigated the role of interactive television in teacher education (De Kock, 2000: 204)

The Education Centres is another a project which aims to improve access to ICTs in rural KwaZulu-Natal communities through using centres located within the community.

SECTION B: THE CENTRE APPROACH

The use of central nodes which offer ICTs has evolved as a common technique to distribute ICTs to communities and to encourage access in order to bridge the digital divide. Melkote and Steeves (2001) cite a number of examples from India. In one instance, Delta Innovative Enterprises (a local business) connected over 200 towns through a network of 35 earth stations which provide satellite mail facilities such as fax, pager and telephonic messages. Delta Innovative planned to expand this programme to connect 3000 towns and 40 000 villages (Melkote and Steeves, 2001: 259). Another programme, also in India in the state of Madhya Pradesh, was launched by the state government. This programme established an Intranet network which gives over five million villagers access to vital information such as commodity rates, information on government welfare schemes, copies of land records needed for agricultural loans and rural water supply schemes. The information provided by this Intranet has financially assisted the farmers in the villages (Melkote and Steeves, 2001: 260).

Faced with issues of poor infrastructure (especially electricity and telephone lines), low education levels and a lack of computer skills in rural communities, the South African government has seen this centre approach as an effective tool for the distribution of ICT access in South African rural communities. The 'centre approach' can be defined as the "practice of establishing centres as information resources and communications nodes" (Benjamin et al. 2000 in Snyman and Snyman, 2003: 96) and in South Africa there are various types of centres which deliver ICTs to rural communities.

Telecentres have been used in various countries across the world as a means for communities to access ICTs and are generally funded by the government. Telecentres, according to Onkaetse Mmusi (2005) are designed to offer communities various services and offer "computer training, basic telephony, places where people can use computers for typing and using e-mail and Internet services" (2005: 157). These centres offer the community shared resources in terms of telephones, printers, fax machines, photocopiers and access to the Internet (Lesame, 2005: 24). Lesame identifies the success of these telecentres in rural communities in countries such as Australia and the Philippines is as a result of government funding. In South Africa, however, these centres face challenges with regard to sustainability and profitability and many do not provide Internet access (Lesame, 2005: 24). The other services that these centres offer are

photocopying, faxing, support for small businesses and access to community and government information (Onkaetse Mmusi, 2005: 157).

There are various types of telecentres, all of which are based on a similar concept and goal – to provide communities with access to ICTs and other resources and thus improve the socio-economic conditions of these communities. The Universal Service Agency in its 2002 telecentre audit identified the following telecentre types: Multipurpose Community Centres (MPCCs), standard telecentres, Mini-telecentres and Pilot telecentres (in Onkaetse Mmusi, 2005: 158).

MPCCs are another version of a telecentre in South Africa which have been established by the Government Communications and Information Services (GCIS) and the Universal Service Agency (Lesame, 2005: 26). Established in rural and urban areas, Onkaetse Mmusi (2005) describes them as "advice centres of the communities" (2005: 159). This is where communities come to gain information regarding various issues from legal matters to social and welfare services. According to Onkaetse Mmusi (2005), MPCCs have used ICTs to "empower their service delivery long before telecentres were established" (2005: 159).

Digital villages are also a form of telecentre which can be described as a "computer resource centre", however, unlike most telecentres, these villages are funded by the private sector and generally have better resources (such as electricity and accommodation) and better ICT skills training. These centres are managed by community members who are trained in IT and management skills (Lesame, 2005: 25).

Centres, whilst offering an effective means of delivering ICTs to rural communities, also face certain challenges. Conradie, et. al argued that the lack of success of earlier telecentres projects is due to the fact that they predominantly address the single issue of providing Internet to rural areas without taking cognisance of other challenges (2003: 200). Conradie and Jacobs (2003) highlight six main challenges:

- Reconciling the tension between technology push and local development needs.
- The lack of electric power in some rural areas.
- The lack of supporting communication infrastructure in the rural area where an intervention takes place.
- The lack of Personal Computer (PC)-related skills in the local rural community.
- The lack of PC-related applications and sustainable career path opportunities in the rural area involved.
- Other social challenges specific to the rural area involved (e.g. local power relationships, political divisions) (in Conradie, et. al, 2003: 200).

Onkaetse Mmusi also raises the issue of how to prescribe telecentre success. She argues that there is need for "a more general theory on telecentre success" (2005: 162). At present there is no recipe for running a successful telecentre rather, as noted by Onkaetse Mmusi, there are "cases of successful telecentres and cases of telecentres that have failed" (2005: 161). The Education Centres project is a project which utilises the concept of the telecentre to deliver ICTs to rural communities. What makes the Education Centres project different to other telecentres is its relationship with schools and education. These Education Centres have been and are being established in partnership with the KZNDE within their districts with most of the centres located in schools.

The Education Centres are also subject to the six challenges highlighted by Conradie, et. al (2003). However, the project attempts to deal with the first three challenges through extensive research and analysis into the areas earmarked for centres prior to the establishment of a centre. All centres are selected according to a specific set of criteria[9]. With the challenge of PC skills, the centres attempt to address this through offering computer skills training. Training is also envisioned for teachers, centre staff and community members in not only computer skills but also financial management, leadership and HIV/AIDS (MiET, 2006a: Annexure G). However, not all this training is currently taking place. At the time of this research, only a few centres were conducting workshops and these workshops were predominantly aimed at teachers. It is nevertheless, the goal of the centres to offer skills training to a broader group.

Skills training will also attempt to address the next challenge which is the lack of career path opportunities available in the area. The Youth and Adult forums which the centres are set to establish aim to address this issue through not only skills development training and providing opportunities for community members to improve their skills, these forums are also responsible for establishing income-generation projects within the community. "We have women who are making this grasswork...Others are making beadwork...at one of the centres we have women doing the sewing" (Mthimkulu, 2006a).

The Education Centres project has been in operation for almost two years and thus, whilst it can present arguments to the challenges suggested by Conradie et. al (2003), it is not without its own challenges. A key challenge highlighted by both Chris Ramdas (Rural Development Programme Manager for MiET) and Mhle Mthimkhulu

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[9] Refer to Appendix I for the criteria for centre selection (MiET, 2006a: Annexure B2)

(Provincial Co-ordinator for the Education Centres in KwaZulu-Natal) is the lack of participation by the KwaZulu-Natal Department of Education (KZNDE).

The aim of this research is to examine the Education Centres project as an example of a development project utilising the centre approach for ICT delivery. Although it is too early in the project to predict its long-term success, it does offer an opportunity to analyse a development project in progress. This analysis is in relation to key development issues drawn from development theory and the South African context. These issues are the degree of participation in the project, access to the resources by the community, the long-term sustainability of the project and finally, how it foresees improving the economic and socio-economic conditions of the communities.

In order analyse the project it is necessary to examine the aims and objectives of the Education Centres project supporting rural development.

SECTION C: OVERVIEW OF THE EDUCATION CENTRES SUPPORTING RURAL DEVELOPMENT PROJECT

"New technology has the potential to foster a learning culture and supplement classroom teaching, even in remote rural areas" (Dubery, Du Pisani & Sedibe 1999 in Conradie and Roodt, 2003: 267)

The Education Centres project discussed in this research is an example of the centre approach to development. The project grew out of the Media in Education Trust's Multimedia Rural Initiative (MMRI) which was initiated in 2001. The MMRI was a cooperative venture by the MiET which worked with local government to utilise ICTs for rural development. The focus of this project, like the Education Centres project, was improved education delivery in KwaZulu-Natal.

Not only did the MMRI bring ICT into the communities where the centres were established but it also aimed to improve education delivery by offering educators in the rural community access to additional information and resources. According to De Kock (2000), teachers, after completing their training, often lack the support and infrastructure to build on and enhance their training (2000: 206). MMRI, like the interactive television project discussed in De Kock's article *Innovative Teacher Education and Interactive Technology Support,* provided an "active network for collaboration, support, reflection and motivation between educators and lecturers or teaching staff [that] may be promoted and maintained on a permanent basis" (De Kock, 2000: 206).

The KwaZulu-Natal Department of Education in its Master Strategic Plan for 2003 – 2006 listed as one of its key goals, the need to "transform schools into self-reliant and effective learning institutions that are also vibrant centres of community life" (KZNDE: 6). The department also identified the need to co-ordinate the management of the various centres that had been established in KwaZulu-Natal and adopted a policy that aims to promote and regulate the establishment and running of education centres (MiET, 2005b: 3). Out of these strategic goals and the success of the MMRI pilot project run by the MiET, The Education Centres Supporting Rural Development project evolved as a joint initiative between MiET and the KZNDE.

The Education Centres project aims to address certain key issues including a lack of access to information and communication, a lack of resources and a lack of skills especially in relation to education delivery. The project predominantly targets rural areas

in KwaZulu-Natal and attempts to deal particularly with the challenges faced by schools in rural areas. Some of these challenges include:

- Isolation in terms of access and communication;
- Lack of resources;
- Limited capacity on the part of the KZNDE and its districts to manage and support education delivery to rural schools effectively;
- Lack of access to Information and Communication Technology (ICT) and required skills;
- Lack of infrastructure, such as roads, telecommunications, power, water, and facilities for safe storage;
- Inadequate opportunities to improve Learning Area and Subject knowledge and professional competencies of teachers;
- Problems of security;
- Ineffective distribution, procurement, management and utilisation of resources;
- Limited access to service providers, technical support and specialised services; and
- The detrimental impact of HIV and AIDS (MiET, 2005b: 4).

The programme also targets township schools which face similar challenges, though more acutely a "lack of skills; poor organisational structures; lack of managerial and marketing capacity to access potentially available resources and a high crime rate" (MiET, 2005b: 4 - 5). The issues highlighted are common development issues in the 'Third World' especially with regards to access to ICTs as well as the lack of infrastructure to provide ICTs. The aim of the Education Centres project is to address these issues through "establishing education centres that serve as decentralised nodes for the delivery of quality education support services and other socio-economic programmes, services and resources to schools and their communities" (MiET, 2005b: 5).

Within the project there are also a number of key role players. These include the Royal Netherlands Embassy (funder) and the Kwazulu-Natal Department of Education (KZNDE) who operates as the managing organisation and fund-holder. The MiET's role is to provide technical support for the management, development and monitoring of the programme (MiET, 2005b: 19). In terms of its responsibilities as the managing organisation, the KZNDE has been tasked with the responsibility for 69% of the education centre's budget and will own the centres as they are established. The goal is for the department to be responsible for staff, maintenance and running costs at the end of the programme (scheduled for 2009) (MiET, 2005b: 18).

MiET's role is to offer support for the department and technical assistance in implementing the programme as well as being "accountable for programmes that relate

more to the development of communities and youths around the centres" (MiET, 2005b: 17).

In order to fully understand the Education Centres project, it is important to understand the project's objectives. The implementation of the project is focused around seven key objectives – the responsibility for which, are shared between the KZNDE and the MiET. It is against these objectives that progress of the centres will be evaluated[10].

The objectives are as follows:

Objective		Responsibility
Objective 1:	Build in participatory processes among the various levels of the provincial education department, schools, local authorities and communities, to ensure sustainability and good corporate governance.	MiET
Objective 2:	Establish a province-wide network of about 120 education centres across all districts of the KZNDE. (Build, upgrade and equip centres)	KZNDE
Objective 3:	Build capacity within centre governance and management structures to effectively run and manage the centres.	MiET
Objective 4:	Improve communication and the distribution of information and resources to and from schools.	MiET
Objective 5:	Deliver quality education programmes to school communities.	KZNDE
Objective 6:	Support the socio-economic development of communities around the schools and help communities to combat HIV and AIDS.	MiET
Objective 7:	Conduct internal and external formative and summative monitoring and evaluation to strengthen the programme, maximise learning and document what has been learnt.	MiET

Figure 3: Table of Objectives and Responsibilities (MiET, 2005b: 5 and MiET 2006a: 4)

Although the project will ultimately be owned by the KZNDE, the MiET has a huge role to play in its implementation and extending the project into the community. In terms of the

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[10] The project will be evaluated by an external organisation, SAIDE (South African Institute of Distance Education)

objectives, although the KZNDE is responsible for Objectives 2 and 5, MiET does support the department within these objectives. Under Objective 6, the Schools as Centres of Care and Support, which is a separately funded project, is also involved in helping the MiET and KZNDE to achieve this objective.

Centre Description

The aim of the Education Centres project in KwaZulu-Natal is to establish 120 education centres across the province. These 120 will include 12 district education centres located in each of the 12 education districts of the KZNDE, a number of free-standing centres, a number of school-based centres and a number of communication centres. The free-standing centres are similar to the district centres and which are both larger than the school-based and communication centres. School based centres are based at a school in buildings or classrooms that are not being used by the schools and can function as centres. The smallest type of centre is the communication centre which consists of one classroom that is a set up with a computer and email. The aim of this centre is to provide the school with a computer that is able to receive KZNDE circulars. The classroom will also be able to serve as a meeting room (Ramdas, 2006).

The project foresees one district centre with nine satellite centres per district (MiET, 2005b: 6). As the project progresses, these numbers will be influenced by the numbers of learners (MiET, 2005b: 6). At present there are approximately 60 centres with other centres at various stages of development. These sixty are a combination of district, free-standing, school based and communication centres. Future centres have been identified and are awaiting renovation.

In terms of programmes and services offered by the centres, the centres aim to offer teacher professional development, access to ICTs and E-learning, HIV and AIDS education, adult and youth literacy and skills development, programmes aimed at job creation and the alleviation of poverty, support for orphans and vulnerable children and environmental conservation and education. The centres will also serve as venues for training and workshops as well as points for the distribution of materials and resources to schools (MiET, 2005b: 10). Although not all the centres are up and running, there are certain activities taking place at the different centres. However, due to the early stage of the Education Centres project, at the time of writing these research findings there was no centre that offered all the envisioned programmes or resources.

EDUCATION CENTRES

Figure 4: Maphumulo Education Centre
Photograph: Kathryn Gush

Figure 5: KwaMashu Education Centre
Photograph: Kathryn Gush

Figure 6: Lamontville Education Centre
Photograph: Kathryn Gush

The Schools as Centres of Care and Support (SCCS) programme is currently running alongside the Education Centres project and offers support for orphans and vulnerable children. The aim of this programme is to "to integrate HIV and AIDS education in to the curriculum, to lead community strategies that respond to HIV and AIDS and to improve care for orphans and vulnerable children" (MiET, 2005a: 4). According to the MiET Rural Development Manager, Chris Ramdas, the implementation of the SCCS programme has been one of the successes of the Education Centres project to date and has been integrated by the KZNDE as a model for its policy on care for orphans and vulnerable children (Ramdas, 2006). Other activities currently taking place at the centres include training programmes and income-generation projects.

The next chapter will examine these activities, the objectives and the aims of the centres in relation to the development concepts of participation, access, sustainability and economic and socio-economic improvements.

CHAPTER 3: ANALYSIS OF THE EDUCATION CENTRES SUPPORTING RURAL DEVELOPMENT PROJECT

SECTION A: INTRODUCTION TO ANALYSIS

The previous chapter discussed the importance of ICTs in achieving development in South Africa and the centre approach was examined as a potential tool for bridging the digital divide within the South African context. Although the relationship between technology and development has been explored in detail in Chapter 1, it is necessary to draw connections between Development Communication Theory which operates on a theoretical and global context and small local-level development projects in order to critically analyse the Education Centres project.

The context for the Education Centres project has been established within the South African development arena. However, it is important to note that South Africa's emphasis on the role of ICTs in furthering development arises out of the global context for development. This global context is expressed in resolutions such as the Millennium Development Goals. The Millennium Development Goals were a result of the United Nations Millennium Declaration of September 2000 (United Nations, 2000). This declaration outlined goals for nations to help eradicate poverty in the developing world, encourage peace and help developing countries to deal with the impact of globalisation (United Nations, 2000: 1- 2).

A number of the values and principles outlined in this declaration relate to the goals and objectives of the Education Centres. Amongst these values and principles is the need to ensure that "children everywhere, boys and girls alike will be able to complete a full course of primary schooling" and that all children will have "equal access to all levels of education" (United Nations, 2000: 5). These values are expressed under Goal 2 of the Millennium Development Goals which is to "achieve universal primary education" (United Nations, 2000). Improved education delivery is a key objective of the Education Centres project as highlighted by Objectives 4 and 5 and ICT also plays a role in the achievement of this goal. The infoDev program highlights the role that ICT can play in broadening the "availability of quality educational materials / resources through ICTs" (infoDev, 2005: 53).

Another goal of the Millennium Declaration is to "develop and implement strategies that give young people everywhere a real chance to find decent and

productive work" (United Nations, 2000: 5). ICTs can also play a role in achieving this goal. Telecentres, such as the Education Centres, do not only "provide access to telecommunications, they also create direct employment" (infoDev, 2005: 53) and the ICTs in these centres can "improve youth learning skills, [and] employability to meet the challenges of the knowledge-based global economy of the 21st century" (infoDev, 2005: 53). The Education centres not only aim to improve education delivery, which will in turn assist young people to find decent and productive work, but the centres also encourage income-generation projects and offer skills development training to the community alongside access to ICTs.

The declaration also encourages the development of "strong partnerships with the private sector and with civil society organizations in pursuit of development and poverty eradication" (United Nations, 2000: 5). The Education Centres project relies on partnerships between the funder, Royal Netherlands Embassy (RNE), MiET, the KZNDE and other service providers such as skills development companies as well as local-level agencies such as schools and municipalities.

Finally, the declaration also aims to "to ensure that the benefits of new technologies, especially information and communication technologies, in conformity with recommendations contained in the ECOSOC 2000[11] Ministerial Declaration are available to all" (United Nations, 2000: 6). A key aim of the Education Centres is to use ICTs to facilitate development.

The values and principles outlined by the Millennium Declaration are expressed in eight development goals. These goals encompass the values and principles of the declaration and link to South Africa's development goals. The South African government has committed to the Millennium Development Goals and according to a report by Modisane and Masango published on the 6 September 2005 on SouthAfrica.info, South Africa is "well on the way to meeting its Millennium Development Goals before the 2015 deadline" (Modisane and Masango, 2005).

The government has also adopted a Programme of Action for 2006. This Programme has arisen out of Thabo Mbeki's State of the Nation address on the 3rd of February 2006 and the January 2006 Cabinet Lekgotla (South African Government

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[11] ECOSOC (Economic and Social Council) 2000 noted that ICTs were "central to the creation of the emerging global knowledge based economy and can play an important role in accelerating growth, in promoting sustainable development and eradicating poverty in developing countries as well as countries with economies in transition and in facilitating their effective integration into the global economy." (United Nations, 2000b).

Information, 2006). The *Programme of Action* is divided into various clusters. Under the Social cluster, point no. 7 calls for broadening access and improving the quality of education by implementing a National Skills Development strategy (South African Government Information, 2006a) and 7.2 calls for the improved provision of general education (South African Government Information, 2006a). This emphasis on education ties into the Millennium Declaration's call for improved access to education. The Education Centres project can thus be seen as a development project in response to the Millennium Declaration and the South African government's call for improved access to education.

The South African government is also committed to the goals of NEPAD (New Partnership for Africa's Development). Under the International Relations, Peace and Security Cluster in the Programme of Action, the government calls for the facilitation and implementation of "NEPAD priority sectors (infrastructure, agriculture, environment, tourism, ICT, health, human resources, and science and technology)" (South African Government Information, 2006b). NEPAD is the result of a partnership between African Heads of State that aims to address development in Africa (NEPAD, 2005). In relation to ICTs, NEPAD in the Summary of their Action Plans highlights that "Africa's development begins with the quality of its human resources" thus NEPAD undertakes "to work towards the enhancement of our human resources through the provision of more and better education and training, especially in Information and Communications Technology (ICT) and other skills central to a globalising world" (NEPAD, 2005). Their Action Plan therefore identifies ICT access as a key element of development in Africa and highlights amongst other issues, the need to bridge the digital divide between the "rural and urban areas within a given country" (NEPAD, 2005).

This emphasis on the role of ICTs in development is highlighted in the Millennium Declaration and features as part of the South African governments development action programme. The Education Centres is an example of a project that is working towards achieving the goals of improved ICT access and improved access to education. The project also addresses other South African development goals such as youth development (as highlighted in the Social Cluster Programme of Action (South African Government Information, 2006a)) through the Youth Forums and income generation projects.

When analysing the Education Centres in relation to Development Communication theory, the global context of development (highlighted by the Millennium

Declaration) and the context of South Africa's development goals, it is necessary to find key areas for analysis. This researcher has selected four key issues that are common to Development Communication theory, the Millennium Declaration and South Africa's development context. These are the issues of **participation, access, sustainability** and **the economic and socio-economic impact** of a development project. These issues all relate to the key features of the Education Centres and the role of education and technology in development.

The various theoretical paradigms discussed in the first chapter outline what they envision as "best practices" for development in a Third World context. Many of the recommendations are a result of the context in which the paradigm emerged but also as a result of the influence (either positive or negative) of the paradigm preceding it. Modernisation was recognised as the dominant paradigm for many years and, as mentioned in Chapter 1, still influences modern development programmes. The subsequent paradigms, Dependency Theory, 'Another Development', DSC and the 3Ds, are all reactions to the Modernisation paradigm and thus offer alternatives influenced by the 'dominant paradigm' and each other.

Theory, however, is informed by practice and the paradigms discussed in the first chapter are characterised by the context in which they were conceived. For example, Modernisation was a result of the conditions of post-war Europe and the 3Ds evolved in the context of the end of the Cold War. This research also seeks to explore a development project 'in practice'. Servaes argues that there is no "universal path to development" rather that it must be seen as a process that is "integral, multidimensional, and dialectic" (Servaes, 2002: 78). Therefore the Education Centres project cannot be examined without taking cognisance of both the theoretical background to development and the current global and South African development context.

The following chapters will look at the topics of economic and socio-economic improvement, participation, access and sustainability whilst examining the Education Centres project. The project will be examined in relation to the influence of the theoretical background and how the project aligns with South African and global development goals and thus as an individual initiative seeks to contribute to the overall development of South Africa.

SECTION B: RESEARCH METHODOLOGY

In conducting this research, this researcher has situated her research in ethnomethodology and uses the technique of a case study to critically analyse the Education Centres project in relation to Development Communication Theory and current issues in the South African development context such as ICT access and the role of education in development.

Ethnomethodology is described by Garfinkel as the study of how people make sense of their world. He suggests that this sense making is a method of "selecting certain facts from a social situation, which seem to conform to a pattern, and then making sense of these facts in terms of the pattern" (in Poore, 2000). This pattern is then used as a framework for interpreting new facts (Poore, 2000). From an ethnomethodological perspective this research aims to create a "framework" for analysing future development projects in South Africa through presenting a case study of the Media in Education Trust's Education Centres project.

A case study is defined by Nisbet and Watt (1984 in Cohen, Manion and Morrison, 2000: 181) as "a specific instance that is frequently designed to illustrate a more general principle". In this thesis, the Education Centres project is a case study which explores the use of ICT in a South African development projects and how this project relates to development communication theory as well as global and local development aims. The case study is conducted through the analysis of the project in relation to the development issues of socio-economic and economic growth, access, participation and sustainability.

The strength of a case study as a research method is its ability to "provide insights into other; similar situations and cases; thereby assisting interpretation of other similar cases" (Nisbet and Watt, 1984 in Cohen, Manion and Morrison, 2000: 184). The aim of this research is to contribute to a greater understanding of ICT-based development projects in South Africa and thus provide insight into this area of ICT and development work in South Africa.

In order to conduct research for this case study, this researcher has used a combination of observation, interviews and textual analyses as research tools.

Observation is a common case study research tool and allows the researcher to gather "'live' data from 'live' situations" (Cohen, Manion and Morrison, 2000: 305). For this research the researcher conducted non-participant observation of the functions and

activities of three Education Centres[12]. The first centre, Maphumulo, was located in a rural area and the second two centres at KwaMashu and Lamontville were located in urban areas. All were free standing centres. The researcher chose to visit free standing centres on the recommendation of MiET as in these centres it is easier to observe centre activities. School-based and communication centres are both located in schools and thus do not necessarily have activities running during school hours.

These observations were based the objectives and aims outlined in the Business Plan (MiET, 2005b) published by MiET in March 2005 and the information gathered prior to the observation through interviews with Chris Ramdas (Rural Development Programme Manager) and Mhle Mthimkhulu (Provincial co-ordinator for the East . This observation was complemented by interviews with staff, mainly the centre managers, and a few participants at the centres[13]. An interview was also conducted with Stanley Lunga, Regional Co-ordinator for the Ethekwini Region. The focus of the observation and questions were also related to the analysis headings of participation, access, sustainability and socio-economic improvements from the centres.

Interviews were conducted with Ramdas and Mthimkhulu as key role players from MiET. MiET's role in the process has been to assist in driving the establishment of these centres, to audit the needs of the centres and to train the staff to manage the centres. Questions were drawn from the Business Plan and explored the underlying principles of the project, the objectives of the centres and what had been achieved in relation to these objectives to date[14], the programmes that the centres will offer, programme partners and evaluation of the project.

Interviews allow participants to discuss their interpretations of the situation under study (Cohen, Manion and Morrison, 2000: 267). In this research, the interviews not only supplied information on the project from those directly involved but allowed this researcher to evaluate the perceptions of those involved to the education centres project. All participants were given the choice of whether they wanted their real name to be used in the research or if they wanted to be given pseudonyms. In all cases except for one of the learners and the Centre Manager at Maphumulo[15] agreed for their names to be used in the research. Although the education centres are a joint venture with the

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[12] Refer to Appendices F, G and H for photographs and location maps of the centres.
[13] Copies of the questions used for the interviews at the centres are included in Appendix E.
[14] Copies of the questions used for the interviews with Ramdas and Mthimkhulu are included in Appendix C and D
[15] This Centre Manager will be referred to as Centre Manager A

KwaZulu-Natal Department of Education, interviews were not conducted with the Department due to issues of access. The research thus focuses on the role played by the Media in Education Trust.

The aim of the interviews was to understand the steps in the process of planning and implementing the education centres project whilst identifying problems and challenges experienced by those driving the project. As MiET's involvement in the project is scheduled to end in 2009, this thesis presents an analysis of the project to date whilst examining how the challenges faced in the first year will inform the rest of the project.

Finally, this researcher has undertaken an analysis of primary texts from the Media in Education Trust. These texts provide key information on the aims and long-term goals of the project as well as information on the role of the various stakeholders. These texts form the basis for the observation and the interview questionnaires. As Miller argues texts are "one aspect of the sense-making activities through which we construct, sustain, contest and change our senses of social reality. They are socially constructed realities that warrant study in their own right" (Miller, 1997: 77). These texts included business plans, summaries of objectives, reports, concept documents, training material etc.

The interviews and results of the observation are used to inform the analysis of the Education Centres in relation to Development Communication theory and the context of South African development. The aim of this research is not to advocate the Media in Education Trust's education centres project as the solution to ICT development in South Africa but to examine it critically as a development project and build the foundation for further research on these centres.

CHAPTER 4: SOCIO-ECONOMIC DEVELOPMENT AND THE EDUCATION CENTRES

It is the aim of development projects and programmes to institute change in a community or country and the goal of any development programme is to "improve the living conditions of society" (Melkote and Steeves, 2001: 34). This need to improve the conditions of a particular community or nation was the motivation behind the various Development Communication theory paradigms, although they all differed in the approach they recommended. This improvement in the conditions of the Third World is also the goal of the Millennium Development Goals which aim, among other goals, to eradicate poverty, improve access to primary schooling and improve the health of those in developing countries.

Economic development was the key focus of the Modernisation paradigm during the 1950s and 1960s. It was the later paradigms, such as 'Another Development' which sought to focus more on the 'human' side of development. The focus of 'Another Development' was thus not only on economic indicators but focused also on the human concerns of development placing emphasis on the basic needs of people such as "health, nutrition, ecology, structural transformation, and participatory democracy" (Melkote, 1991: 234). Subsequent development projects have thus focused not only the economic improvements that a development project can initiate but also the social change.

The Education Centres project is a development project which aims to improve the social and economic conditions of the communities surrounding the centres. The purpose of the programme is to "establish education centres that serve as decentralised nodes for the delivery of quality education support services and other socio-economic programmes, services and resources to schools and their communities" (MiET, 2005b: 5). Objective 6 of the Education Centres project is to "support the socio-economic development of communities around the schools and help communities to combat HIV and AIDS" (MiET, 2005b: 5). In order to achieve this objective, the Education Centres have outlined a number of programmes such as establishing youth and community desks at each of the centres. These desks have subsequently been renamed youth and adult forums (MiET, 2006a: 17). Part of the role and responsibility of these youth and adult forums is to establish income-generation projects within the communities. The nature of the projects are determined by the community and their available skills. As

Mthimkhulu (2006a) notes, "we don't encourage them to try and do something that is beyond their level, their skill, because it is difficult".

These income-generation projects are an example of how the centres are aiming to improve the economic conditions of the community. Currently there are a number of projects which exist which include women who are doing grasswork, making folders, beadwork, sewing and ostrich leather belts and shoes (Mthimkhulu, 2006a). The role of the centres in these projects is to assist the communities to identify their skills (this is done through the Participatory Rural Appraisal workshops which are run with the community prior to the centre being established). The goal is also for the centres to provide a venue for the projects, although at present the established centres are too busy and there is insufficient space (Langa, 2006). The centres also in the future will provide access for the community groups involved in the income-generation projects to skills training and computer skills training. This skills training is aimed at both refining the skills the community has identified that they can use to generate income, teaching these groups how to write a business plan and how manage the seed funding that the projects will receive either from the Royal Netherlands Embassy or outside funding through Ithala Bank. At present there are various income-generation projects on the go in the communities, however, many are still in the process of expanding these projects so that they can generate greater revenue. The First Year Report on the Education Centres highlights the Charlton Centre, near Kokstad, as one centre which has already submitted their business plan (MiET, 2006a: 17).

Apart from the income-generation projects, the centres offer economic improvements through increasing the opportunities for employment in the community. The computer skills training provided by the centres has, according to the personal testimonies from the Centre Manager at Lamontville and the PA at Maphumulo (who was the previous computer skills facilitator), has lead to community members finding employment (Dhlomo and Mthethwa, 2006). According to Dhlomo (2006), in Lamontville community members have found employment in the new Umlazi shopping centre as a result of the computer skills training they attended at the Lamontville Centre. In Maphumulo, Mthethwa notes that past pupils from her computer skills training have found employment as school administration clerks as a result of their computer skills training (2006).

The centres themselves also offer employment for the community, although many of the centres are still in the process of being staffed. Ndlovu (2006) notes that at

present the Lamontville Centre does not employ an administrative person, however, he observes that it is important for the centre to employ persons for the administrative positions and cleaners from the community so that the "community feel that they own the centre" (Ndlovu, 2006).

Not only do the centres offer economic improvements as a result of the income-generation projects and the skills training but there is an emphasis on the social improvement of the community. If one refers to the basic needs highlighted by 'Another Development' of "health, nutrition, ecology, structural transformation, and participatory democracy" (Melkote, 1991: 234), as the indicators of social development, then in relation to the Education Centres, these indicators have been recognised by the project but the programmes to fulfil them are not necessarily in place as yet.

In the Business Plan, the programmes envisioned encapsulate a number of these basic needs. In relation to health, the Schools as Centres of Care Support programme (SCCS)[16], which is currently operating in many centres, aims to address the issue of HIV/AIDS and orphans and vulnerable children. HIV/AIDS is a key health issue in South African development and impacts on the sustainability of the centre as a healthy community is a growing community and thus is able to benefit more from the resources available at the centres. Nutrition also falls under the SCCS programme which, in caring for orphans and vulnerable children has, through the Institute Support Teams, has initiated feeding schemes at schools to ensure children are getting nutritional support at school.

In terms of ecology, structural transformation and participatory democracy, at this early stage of the Education Centres project, one cannot assess whether the centres will be able to effectively address these social issues. The Business Plan does outline a series of supplementary programmes which the centres will offer when established and are fully functioning. These programmes include "adult and youth literacy and skills development; programmes aimed at job creation and poverty alleviation; provide venues for training, workshops and study; support for OVCs [orphans and vulnerable children]; Gender equity, democracy and human rights; environmental conservation and education" (MiET, 2005b: 10). Currently the centres are offering some skills development programmes to address this need, as well as adult and youth literacy through ABET. The centres also currently provide venues for training and workshops

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[16] The SCCS programme is a supplementary programme which is running alongside the Education Centres project, as it is not the key focus of this research, the researcher will not go into detail on this programme.

and the SCCS programme is in operation, offering support for orphans and vulnerable children in the community. However, the programmes addressing gender equity, democracy and human rights and environmental conservation are not happening as yet. According to the first year report, the delays in establishing the centres has resulted in the centres not being able to offer a wide range of educational programmes at the first twenty centres (MiET, 2006a: 16). The focus as regards training has been on up-skilling the centre management and on KZNDE workshops aimed at educators in schools.

It is through the delivery of these resources (skills training and physical resources such as computers and Internet access) and through meeting the projects' objectives that the project aims to improve the socio-economic conditions. Access to these programmes, services and resources, coupled with participation from the developing community will help ensure the sustainability of the Education Centres project.

As the Education Centres project is still in the early stages, one cannot assess whether the project will result in significant social and economic improvements on the macro-level. On the micro-level, individuals who have found employment through these centres have experienced social and economic improvements. Those involved in the income-generation projects also are closer to improving their economic conditions as a result of the resources provided through the centres project. The SCCS project is also helping orphans and vulnerable children to meet their basic needs in terms of health, nutrition and support (the SCCS assists the children to register for grants). What can be assessed is whether the Education Centres project offers the communities access to resources which could improve their social and economic conditions, whether the communities are actively involved in the centres and whether through this access and participation, these centres will be sustainable in order to effect significant social and economic improvement.

The next three chapters will examine the Education Centres project in relation to the key issues of access and participation and although the project is still in its early phase, whether the programmes put in place are likely to assist in the long-term sustainability of the project.

CHAPTER 5: PARTICIPATION AND THE EDUCATION CENTRES SUPPORTING RURAL DEVELOPMENT

Development efforts should be anchored on faith in the people's capacity to discern what is best to be done as they seek their liberation, and how to participate actively in the task of transforming society. The people are intelligent and have centuries of experience. Draw out their strength. Listen to them. (Xavier Institute, 1980 in Servaes, 1996: 15)

Participation or lack of participation by the developing community in development has been a key issue across all development paradigms. It generally refers to the degree of influence the developing community has in determining the nature of the development programme, especially in relation to communicating the needs of the community.

A key characteristic of Modernisation was the lack of participation from the community involved in the development process. As Servaes (1995) notes, it was "a massive transfer of capital, ideology, technology, and know-how, a worldwide Marshall Plan" (Servaes, 1995: 40) that focused on economic results rather than socio-economic development. Later development approaches recognised the need to focus on the community or context in which the development was taking place. This meant greater participation by the developing community in the development programme.

Participation by the developing community was recognised as necessary even in Modernisation, but with a different purpose. Modernisation practitioners realised that communication at the micro-level was more effective through the use of the Diffusion of Innovations method of communication whereby opinion leaders who were informed by the mass media in turn influenced the others in the community (Melkote and Steeves, 2001: 109). The later development paradigms, however, advocated a greater participatory role for the community in the development process. This trend began with Dependency Theory, which highlighted the need for development projects to aim towards an active participation of people at grassroots and the independence of the local communities (or nations) to tailor the development projects to their own objectives (Melkote and Steeves, 2001: 199).

The need for greater participation by the developing community also formed part of the NWICO's recommendations. Although relating specifically to communication processes, NWICO did call for "greater public involvement in communication systems and includes the involvement of the public in the production process and the management and planning of communication systems" (Servaes, 2002: 85). NWICO

saw greater participation as a means for communities to gain more power in closing the "communication gap" (MacBride, 1980: 254). This communication gap can be linked to the issue of the urban-rural divide faced in South Africa whereby rural communities are limited by their access to communication to effectively participate in the national economy.

Participation continued to be a dominant theme in relation to development. The educationalist Paulo Freire, writing on education and development within the context of Liberation Theology (Melkote and Steeves, 2001: 297), argued that individuals would not reach the goal of critical consciousness without dialogue and participation and critical consciousness was essential for the individual's empowerment. 'Another Development' emphasised greater participation by the developing community as the 1980s saw an increased awareness by national governments and development agencies for greater participation of the developing community in planning and implementing projects (Melkote, 1991: 236). Especially important in 'Another Development' was the emphasis on more participatory and varied communication methods. They emphasised increased participation through interpersonal and group communication (Melkote, 1991: 247). Participation however extends beyond just participation in relation to communication but in rather to "a number of social and planning processes occurring in many different places and in many different contexts" (Servaes, 1996: 15). Thus in this discussion on participation, participation will embrace not only communication with the developing community but research and the nature of the development programme. Servaes argues that participation "stresses the importance of cultural identity of local communities and of democratization and participation at all levels – international, national, local and individual. It points to a strategy, not merely inclusive of, but largely emanating from, the traditional 'receivers' (Servaes, 1996: 15). Servaes then refers to Paulo Freire and the Freirean call for the right of every person to "to individually and collectively speak their word" (Servaes, 1996:15).

In contrast to 'Another Development', Development Support Communication argued for a more participatory approach incorporating both the community and the donor agency in the development programme. Thus the development agent was also considered a key element of the participatory and development process.

Finally the 3Ds paradigm also encourages participation through its emphasis on preserving the cultural heritage of societies in development. This paradigm does not call for participation by the developing community as strongly as paradigms such as 'Another

Development'; it does recognise the need for participation by the communities in an effort to preserve cultural heritage. Writing within the 3Ds paradigm, Cvjeticanin (2002/2003) notes "dialogue between cultures and their enrichment with new insights and values are the best investment in international peace and stability" (Cvjeticanin, 2002/2003: 3).

For a development project such as the Education Centres, which is based in a community, participation is an important consideration for the success and sustainability of the project. Participation thus is considered in the objectives of the project, most notably in the first objective. This first objective calls for the project to "build in participatory processes among the various levels of the provincial education department, schools, local authorities and communities, to ensure sustainability and good corporate governance" (MiET, 2005b: 14). The activities within this objective can be summarised as follows. MiET has the responsibility for finalising fund-holding arrangements and instituting financial systems; complete service level agreements and project plans; identify provincial and regional programme managers; manage and co-ordinate the implementation of the programme; consult at provincial, regional and district level; establish relevant district, circuit/centre structures and complete the participatory processes for the first 63 centres. The key features of this objective can be identified as creating sustainable processes and systems for the implementation of the Education Centres project through participatory processes.

In terms of implementation and the processes highlighted by Objective 1, this project is a collaboration by various stakeholders. Although the MiET and the KZNDE both are responsible for the implementation of the project, participation by all the stakeholders is vital to the projects sustainability.

> If the processes used to set up the new programmes and establish
> centres are not sufficiently inclusive of all relevant stakeholders, the
> effectiveness and sustainability of the programme and of the centres
> may be compromised (MiET, 2005b: 23).

The stakeholders involved in this programme include not only MiET and the KZNDE but also include RNE (as a funder); other state departments such as the Department of Labour, Department of Social Development and the Department of Health; the State Information and Technology Agency (SITA); schools; local government and the community. (MiET, 2005b: 19). Participation by all the stakeholders is important for the success of the project. Both Chris Ramdas (Rural Development Programme Manager) and Mhle Mthimkulu (Provincial Co-ordinator for the Education Centres Project in

KwaZulu-Natal) highlight the lack of participation by the KZNDE to make resources available (for example, staff dedicated to the project) and to put financial systems in place as the cause for delays in many activities not being implemented. As Ramdas notes, there was a feeling in the department that the project was a burden, there was "no keenness to get on board" (Ramdas, 2006). However, the recent appointment of Jabu Bhengu as the KZNDE official who will oversee the Education Centres project is felt by both Ramdas and Mthimkulu as a positive step for the project.

Participation in relation to the Education Centres needs to be analysed in respect of participation not only in the communication of the project but also in its implementation. Therefore it is important to examine Objective 6 of the Education Centres project. Objective 6 calls for the project to "Support the socio-economic development of communities around the schools and help communities to combat HIV and AIDS" (MiET, 2005b: 5). .

Both Objective 1 and 6 require the participation of the community for the long-term sustainability of the project and whether the community will achieve socio-economic improvements as a result of the development project. When examining a development project, Sylvia Cohen in her chapter entitled "Mobilizing Communities for Participation and Empowerment" (1996: 223) presents a checklist[17] for measuring the participatory nature of a development project. The checklist explores the following topics in relation to participation: the range of options for the project planning process, who identifies needs, the extent of resource mobilization for the project, who identifies the project workers, the development of social and/or technical skills, project implementation and the periodic evaluation/monitoring of progress (1996: 246 – 247). The options on the checklist are rated as (A) Participative, (B) Somewhat participative, (C) Non-participative and (D) Authoritarian. If one examines the Education Centres project against these objectives it is evident that this project cannot be classified as either participative or non-participative. For example, in terms of who identifies the needs of the community, in this project it is option A: the people themselves, B: the local opinion leaders and C: a government agency (in this case, the KwaZulu-Natal Department of Education). As all stakeholders are involved, one cannot argue that the process is non-participative. The checklist tends to view options where only the community is involved as participatory, however, the Education Centres project cannot be classed as completely non-participative as a result of the role played by the developing agencies (this includes MiET and the KZNDE). In

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[17] For the checklist – refer to Appendix J

this project, there is participation by the community but as a result of the funding and the development needs of South Africa (which are closely tied to the role of government departments) the participation of these development agents cannot be ignored.

In terms of identifying the needs of the community (point number 2 on the checklist) Objective 6 calls for the socio-economic development of the communities and in order to achieve this there needs to be participation with the community in determining the development needs of the community.

When the locations for the centres are selected, meetings take place to inform the community of the project. These meetings also help MiET to understand what are the particular needs of that community are. As a key participatory element of these centres are that they are not "one size fits all" network (MiET, 2005b: 7). As discussed in the Business Plan (2005b),

- Firstly, there will be different categories and sizes of centres.
- Secondly, each education district, circuit and local school cluster will decide on the specific services, programmes, facilities and staffing that they need, based on the available "menu" outlined in the education policy statement of the KZNDE and the available budget.
- Thirdly, local school clusters will be able to decide on elements such as the opening times of centres, based on their own needs and within the framework of this strategy. (MiET, 2005b: 7)

In order to ascertain what services are important for the centres and the communities, all stakeholders have to be involved in determining the status of the community and its needs. Mthimkulu notes that it is important to include everyone and to research the area prior to establishing a centre - not only in terms of its suitability of location but also in order to understand the politics of the area

> We must know the politics around the area because if you just go there you are going to have big problems If it is a centre that is located under "inkosi[18]" then we need to meet with that inkosi and introduce the project. You need to sit down with those people – even if it means sitting down on the floor – so you respect them and you introduce the project. Another thing that is very important is for them to see that you are not coming from any political party but that it is community development. And also if there are municipalities – we are making presentations at district municipalities on this programme and after that we come up with inter-sectoral committees where we try and involve all the different units and government sectors so we don't leave one out because once you leave one out then it's a problem (Mthimkulu, 2006a).

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[18] Inkosi is a Zulu word which refers to the leader of the community or chief.

As discussed above, Dependency Theory highlights the need for local communities to tailor the development projects to suit their own objectives. Although MiET prescribe what resources (computers, email and skills development workshops) are available to a community through the Education Centres programme, Participatory Rural Appraisal is used to assess the needs of the community and thus to help the MiET to identify what skills programmes or services are needed by that particular community (refer to the maps in Appendices F, G and H for location maps of the centres visited). This is in line with the principle of a not "one size fits all" approach.

Participatory Rural Appraisal (PRA) began in the late 1980s and is a common tool used by development agencies (Cornwall and Pratt, 2003: 1). PRA since its inception has been interpreted by practitioners in many different ways (Cornwall and Pratt, 2003: 1), however, it can be described as "a family of approaches and methods to enable rural people to share, enhance and analyse their knowledge of life and conditions, to plan and act" (Absalom et. al in Cornwall and Pratt, 2003: 2). In relation to the Education Centres project, PRA has been the key tool used by the agency to establish the needs and status of the community selected for an education centre. "Participatory Rural Appraisal (PRA) was conducted in order to get buy- in and create ownership of the programme [and] assess needs of school communities" (MiET, 2006b:1). At the time of this research, PRA had been conducted at 54 centres in the Ethekweni, Pietermartizburg, Zululand and Ukhahlamba districts (MiET, 2006b: 1). In terms of facilitation, the MiET project team and district officials were trained by a PRA / ABET (Adult Basic Education and Training) specialist. In the Ukhahlamba district, the district officials trained educators and school principals on how to facilitate PRA and in the other regions, two MiET co-ordinators facilitated the PRA (MiET, 2006b: 2).

During the PRA different tools were used to gather information about the community. For example, a Health Matrix was used to indicate the use of health centres, Venn Diagrams demonstrated the relationships between different groups/organisations in the community, the Tree which shows income and expenditure in the community and Mapping which illustrated the location of the education centres (MiET, 2006b: 3 – 5).

The PRA involved various community groups including teachers, learners, the community around the centre and local government and traditional leaders (MiET, 2006b: 2). The data collected during the PRA indicated that participation in the process was mixed. The voice from the community was strong, however, the in three out of the

four regions, participation from local government and local authorities was low (MiET, 2006b: 7). The results of the PRA showed that the stakeholders that appeared to be left out of the PRA process were Department of Education district and circuit officials and out-of-school youth. This was noted as an issue and recommendations were made to include these in the next round of PRA which then designed questions that targeted youth and Department of Education officials (Mthimkhulu, 2006b).

Thus every effort was made to involve all stakeholders in the PRA and by involving the community in identifying their development needs, the development project is more likely to get buy-in from the community. This is important for the sustainability for the project. Another key factor to examine when discussing the degree of community participation is the role of the development agency – in this project this is the MiET.

Since Modernisation, development agents have played a major role in development where the development agency was the major stakeholder in the development process. There role has evolved to include the community in a more participatory development approach and Dependency, 'Another Development', DSC and NWICO all advocate a more participatory approach.

MiET plays a crucial role in helping the community to identify its development needs and this is done through the PRA. What one could debate is that the solution offered in terms of infrastructure, resources and programmes are based on the concept developed by the MiET and KZNDE and not the community.

The role of the development agency is important in establishing the participatory nature of the project. Melkote and Steeves (2001) argue that the participation advocated by Development Support Communication was never fully integrated into development practice as development agencies were unwilling to give up control over the process of development (2001: 350). Likewise participatory communication is a term that has been misused and misunderstood (2001:350). Participation, Melkote and Steeves argue, has been operationalised in many different ways from "pseudo-participation to genuine efforts at generating participatory decision-making" (Melkote and Steeves, 2001: 350).

The practice of participatory communication emphasizes a collaboration between the people of the developing community and the 'experts', "a co-equal knowledge-sharing between the people and experts, and a local context and cultural proximity" (Melkote and Steeves, 2001: 350). Melkote and Steeves (2001) argue that this has not resulted in the empowerment of the people but rather the attainment of an indicator of development articulated in the Modernisation paradigm such as economic growth,

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political development and infrastructural development (2001: 351 – 352) in contrast to the outcomes desired by Development Support Communication. These outcomes include "increased access of all citizens to material, psychological, cultural and informational resources; honing of individual and group competence, leadership skills, useful life and communication skills at the local level; honing of critical awareness skills [and] empowered local organizations and communities" (Melkote and Steeves, 2001: 352). Cohen notes that community participation "is both a process and a measure of *how much is being done by the people for themselves*, with a view to taking control over their own lives and environment in a self-reliant effort and empowering the most disadvantaged members of the community" (Cohen, 2000: 223).

In relation to the Education Centres project, ownership of the centres will ultimately reside with the KZNDE who "will be responsible for staff, maintenance and running costs after the end of the programme[19]" (MiET, 2005b). Thus on paper the centres will not be owned by the communities, however, for their sustainability participation is vital and so is 'perceived' ownership by the community. PRA therefore included not only the KZNDE but the community. The Education Centres also, through PRA and the skills training such as ABET and computer skills which will be available to the communities, offer the community access to skills that can empower these communities to take control over their lives. This relates to Objective 6, the support of the socio-economic development of communities around the schools and helping communities to combat HIV and AIDS. A key task within this objective is the establishment of Youth and Adult forums which will drive community income generation projects and provide services to the community.

It is through these forums that community participation will be emphasised, as the KZNDE tends to focus on the project in relation to teachers and learners. Therefore these Youth and Adult forums and especially the income generation projects provide an avenue for the community to take control over their own lives and environment in a self-reliant effort and empower the most disadvantaged.

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[19] The involvement of MiET and the RNE is scheduled for 4 years from 2005 to 2009.

Currently a number of centres have started income generation projects which the MiET will be responsible for marketing (MiET, 2006c).

> We have women who are making this grasswork and they are making folders. In fact, we are using them in the inter-provincial meeting – we made a big order from them. Others are making beadwork. In Ulundi, when we talked to the municipality (because we are also engaging the municipality and other departments of the government), so when we talked to the municipality they have already donated sewing machines. So at one of the centres we have women doing the sewing and I know we will be giving them an order very soon. (Mthimkulu, 2006a).

Community ownership is very important to Mthimkulu, as she notes "that is why we are making these centres user-friendly. It is not necessarily income-generating programmes – is also computers – they come for computer literacy, they come for basic computer skills, ABET lessons, because we are encouraging them not to see these centres as only for teachers or educated people but also for them" (Mthimkulu, 2006). The benefits of community ownership are motivation for the community to engage with each other and drive their own development. Mthimkulu cites an example of a taxi driver at one PRA meeting who noted

> 'For the first time in my life I am sitting in a meeting where there is an SEM' – that is the inspector of schools – 'and principals for the first time in my life – so I like this programme. So if you want teachers to come just phone me and I will pick them up and bring them'". So you develop some kind of a relationship for people who didn't think they would have one" (Mthimkulu, 2006).

To judge the participatory nature of a development project is not straightforward. By examining the Education Centres project in relation to development theory and against the checklist and definition of participation developed by Cohen we can see that the project does exhibit both participatory and not so participatory elements. What needs to be remembered is that this project is a project in conjunction with a government department therefore the objectives will align with the Education department's goals and objectives. However, the Education Centres objectives do indicate an awareness of the need for community participation in the communication, assessment of needs (PRA) and the implementation. The project does offer the community an opportunity to have a say in identifying their development needs and the community is encouraged to be involved in the long-term sustainability of the centre through the Youth and Adult forums where the members of the forums are members of the community and their income-generation projects must arise from the resources available to the community. The PRA has is able

to identify these resources by encouraging the community to identify for themselves what skills, talents and resources they have available.

Overall if one examines the Education Centres project against the checklist suggested by Cohen then one can argue that it is more participative than non-participative considering the key role played by the KZNDE in the projects implementation and ultimate ownership, emphasis on community participation is a good indicator. There is a clear understanding from the MiET that in order for the project to be sustainable, there needs to be participation, however, the KZNDE according to Ramdas, does not view community participation in the same light.

> KZNDE needs to change its mindset. They need to develop a new
> concept of community participation where there is equal participation.
> In order for projects to be sustainable – has to be a partnership between
> KZNDE and the local communities. There is not always been that
> partnership.   (Ramdas, 2006).

Changing the mindset of the KZNDE is just one challenge facing the Education Centres project in terms of participation by the community and all stakeholders. Cohen (2000) identifies a number of key issues that development projects face with regards to true community participation. A number of these are considerations for the Education Centres project whereas others the project has addressed. These issues include the standardization of procedures by the development agency, the political environment, legal and financial systems, staffing policies, communities may be socially stratified or contain conflicting interests and/or there may be a mentality of dependence (Cohen, 2000: 227 – 230). Mthimkulu already notes that the mentality of dependence as a result of extreme poverty inhibits true participation. For example, at the Kransdraai centre the community is extremely poor and when a PRA is organised "they will come with children on their backs, so that they can get food because we have organised food because maybe it will be the only meal. So they will come in numbers not necessarily for the workshop- but you can see that it is about food at the end of the day" (Mthimkulu, 2006a).

Other issues such as staffing have to a degree been addressed by involving members of the community, through the youth and adult forums, in the centre.

At present, the project does take cognisance of the need to involve the communities in the project and establishment of centres through the PRA and alignment to the objectives, however, as the project progresses, other issues may arise as challenges for true participation.

In the following chapter, access to resources is discussed. In order for there to be true access, all stakeholders (including the community) need to participate in the centres. A key challenge for the MiET is to shift the mindset of the KZNDE that the centres are not only for the educators and learners but are also for the community (Mthimkhulu, 2006a). For the community to benefit from access to the resources offered by the centre there needs to be participation. This participation will also enhance the long-term sustainability of the centre.

CHAPTER 6: ACCESS AND THE EDUCATION CENTRES

Targeting poverty, social development and sustainable development also means identifying and deepening capabilities for producing and using information and communication services, promoting access to these services, sharing and exchanging information, and encouraging proactive local and national strategies for development. (Lesame, 2005: 5).

Introduction to Access

Access is a key word in development communication theory and especially in relation to the issue of the digital divide. Access to information and knowledge in a globalised world is important for a nation's competitiveness and also access, as the OSISA note, is a human right.

> Access to knowledge is also a matter of human rights and
> freedom. As the world economy grows, control over knowledge
> and information increasingly determines global wealth and power...
> Health, literacy, education, freedom of speech and participation in
> the knowledge economy all involve questions of human flourishing
> and questions of human rights." (OSISA, 2006).

Access to knowledge is an important element of development projects. This access includes access to education and ICTs. As discussed earlier, access to education and ICTs are important for achieving the Millennium Development Goals and the South African government's Programme of Action and NEPAD commitments, however, it can only be effective for the development of the community if the community is able to utilise the tools to access this knowledge[19].

These tools extend beyond ICTs. In relation to the Education Centres project, the concept of access to knowledge and information can be expanded to include access by communities to resources such as ICTs, educational materials and skills training. The Education Centres project calls for improved education delivery through the delivery of quality education programmes to school communities (Objective 5) and the socio-economic improvement of the community (Objective 6). Access to ICTs, to educational resources and to improved education and skills training offer the potential for the project to achieve these objectives.

Although all the resources listed above are important for the development of the community, development practitioners have highlighted ICTs as particularly important for

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[19] Refer to the Introduction to Analysis section.

Third World development[20]. Although there is debate on the ability of ICTs to solve development problems, it is generally recognised that they play a key role in development (as discussed in the previous chapter) and, as Kutu Mphahlele and Maepa (2003) note, "access to ICTs is regarded by government as important in enhancing the quality of life in rural communities" (2003: 218). This access to ICTs means access to information and access to information is the "key in social and economic activities that bring about development" (Harris, 2001 in Onkaetse Mmusi: 161).

The Education Centres project extends this access to information beyond access to ICTs. The goal of these centres is to provide access to teachers and learners to additional information in order to improve the quality of education delivery. By providing access to not only ICTs but also libraries, skills training and other resources such as faxing and photocopying, these centres are increasing the quality of the access they provide to the community and schools. As the centres do not focus solely on ICTs, it is necessary to examine the quality of access in a manner that incorporates access to the other resources mentioned above. In the report by Cassius-Lubisi (2005) on Education in the Second Decade of Freedom - Strategic Priorities for KwaZulu-Natal, the question of access is discussed under three forms of access. These are physical access, epistemological access and socio-cultural access (Cassius-Lubisi, 2005). This view of access provides a useful tool with which to explore how the Education Centres project addresses the question of access and the three forms of access highlighted by Cassius-Lubisi (2005) also offer an opportunity to discuss access in relation to Development Communication theory.

In Development Communication Theory, access, especially to communication media and technology, has always been a key issue. During the Modernisation paradigm of the 1950s and 1960s, communication was implemented in an atmosphere where media and information technology was viewed as crucial for the development of the Third World and its subsequent participation in the global economy (Melkote and Steeves, 2001: 103). The Modernisation paradigm emphasised economic improvement and the application of technology as an indicator of development:

> It was generally assumed that a nation became truly modern and
> developed when it arrived at a point where it closely resembled
> Western industrial nations in terms of political and economic behaviour
> and institutions, attitudes toward technology and innovation, and social
> and psychic mobility (in Melkote and Steeves, 2001: 79).

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[20] Refer to the Chapter on The South African Context

However, this paradigm tended to emphasise physical access rather than epistemological access or socio-cultural access. The emphasis on access beyond physical access evolved as development theory reacted to the Modernisation paradigm with the debate on the question of access raised during the period of the NWICO. The NWICO was a keen proponent of greater access for developing communities to the media and communication technologies. It saw that power was possessed by those that who controlled and directed communication and amongst its recommendations called for greater access to technical information through the closing of the "communication gap" (MacBride, 1980: 254).

Despite the failure of NWICO, it did raise awareness in the development arena to the importance of access to information by the developing community. Whereas the Modernisation paradigm assumed that technology would equate development, issues of how universal access to the technology would be assured and who had control and power over the distribution and application of the technology were not clearly addressed[21]. NWICO highlighted the need for a more participatory approach to technology and especially communication technology. Like the Modernisation paradigm, the MacBride Commission acknowledged that new technology offered developing countries "new opportunities"; however, they felt that these technologies were not "within the reach of everyone" (MacBride, 1980: 31).

As discussed earlier, in relation to the Education Centres project, access does not refer only to physical access but to epistemological and socio-cultural access. A criticism levelled at the Modernisation paradigm was the "lack of an effective system for delivering knowledge and skills" which prevented the developing communities from "taking advantage of productivity-increasing and, therefore, income-generating techniques and technologies" (Melkote, 1991: 231). The issue of skills, literacy and quality training will thus be addressed under the heading of epistemological access. The later 3Ds paradigm raised the issue of preserving culture in the application of information technologies. The 3Ds argue strongly for the preservation of culture in development, "cultural diversity is under threat from globalisation as homogenisation of tastes, values and languages creates a greater market for consumption of cultural products as commodities (Montiel, 2002/2003: 33). Thus the issue of culture in relation to access will be discussed under the heading of socio-cultural access.

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[21] Refer to the Section on Technology and Development

Physical Access

Physical access according to Cassius-Lubisi refers to "addressing the barriers that limit the ability of learners to physically locate themselves in an institution of learning" (2005). Although the reference here is specifically to schools, the understanding of the term learners can be extended to apply to members of the community in which the Education Centre is situated. Cassius-Lubisi (2005) highlights the following issues in relation to physical access: hardware such as appropriate furniture and ICT hardware; learning support materials such as stationery and enabling resources such as transport and nutrition.

The Education Centres addresses the question of physical access through the centre approach. The centre is regarded as an effective means of delivering ICTs and other resources to rural communities where the absence of ICTs re-inforces the digital divide[22]. As Lesame (2005) observes "the absence of ICT centres in most rural areas contributes to the information gap between people who can access information from ICTs (the information haves, mostly urban) and those people who cannot access information from ICTs (the information have-nots, mostly rural)" (Lesame, 2005: 3).

The Education Centres project aims to establish 120 centres throughout KwaZulu-Natal. These centres range in size and the services that they offer but aim to provide access for teachers, learners and the greater community to skills development training and ICT resources. The centres are situated in both rural and urban areas.

Available infrastructure is a challenge faced by the MiET in establishing centres, "we experience the challenges of electricity and roads but when we select the centres we have criteria" (Mthimkhulu, 2006a). Before the centres are established under this project, the centre is assessed in terms of the available infrastructure such as electricity and telephone lines, "roads should be accessible, [the centres] should be accessible, security, should be...willingness by the school and staff members at the school to support the programme" (Mthimkhulu, 2006a)[23]. Although these selection criteria may cause some areas to be neglected, the project does aim to have ten centres in every education district in KwaZulu-Natal. This does mean that on a district level, no area will be without access to a centre. One must also note that the project is only in its first year and although MiET and the RNE's involvement are only scheduled for five years, the

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[22] Refer to the Chapter on The South African Context
[23] Refer to Appendix I for the Selection of Centres criteria

continuation of the project beyond 2009 could result in the establishment of more centres in more areas.

The resources offered by the various centres are determined by their size. For example, it is envisioned that communication centres, due to their size, only provide a computer with access to the Internet and email, so that the department of education can send circulars to the schools. These centres are also only one room which can serve as a meeting room (Ramdas, 2006). Therefore the resources available in a communication centre are very different to those that are available at a free-standing centre. As mentioned previously, during this research three free-standing centres were visited. One centre was located in a rural area (Mpahumulo Centre) and the other two in an urban area (KwaMashu Centre and Lamontville Centre)[24]. In terms of physical resources, all centres have rooms for workshops (Maphumulo has one workshop room and a small boardroom) and the KwaMashu centre has one hall and two classrooms. The Lamontville Centre is based in an old school building and therefore has many available rooms for workshops. Both the KwaMashu and Maphumulo centres have libraries which stock books, video cassettes and TV-videos that the schools clustered around the centre can use for student revision or to supplement lessons. The library resources are supplied by MiET, ELITS[25] (Education Library Information and Technology Services) or are bought by the centre out of their budget. The Lamontville Centre has a library but the library is currently not operating, as according to the centre manager, N. E Dhlomo (2006), it is not "fully fledged." According to Ndlovu (2006), the child care co-ordinator at the centre there is also no permanent librarian employed at present and as a result the centre's library is not operating. The centres also have photocopying machines for schools where teachers can photocopy necessary school resources such as exam papers. The Maphumulo Centre currently has a computer centre with enough computers for ten learners and the Lamontville Centre has a computer centre with 20 computers. The computers and photocopy machines for the centres are supplied by the KZNDE. However, not all centres have computers as yet. According to the KwaMashu Centre Manager, computers for the KwaMashu Centre are "in the pipeline" (Dlamini, 2006).

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[24] Appendices F, G and H provide an overview and location map of each centre.
[25] ELITS is a KZNDE initiative which aims to ensure that "all learners in KwaZulu-Natal are information literate and have lifelong learning skills that will enable them to live as responsible and informed citizens" (KZNDE, 2006).

In the Maphumulo Centre, there is evident enthusiasm and support for access to these computers. The learners questioned felt "more confident" (Female Learner 2: 2006) and felt that there were opportunities; "I hope maybe I uh come to be a clerk or to work in schools to help other people especially in school and uh yes and work in offices" (Male Learner: 2006). As yet the Centre does not have access to email but the Centre is providing basic computer skills training to out of school youth and teachers. According to the Centre Manager's personal assistant at the Maphumulo Centre, when she was teaching the basic computer literacy course, youth who attended the course were able to find employment as school administrative clerks as a result of the training course (Mthethwa, 2006).

At the Lamontville Centre, the computer centre offers basic and advanced computer courses in Microsoft Word, Excel and PowerPoint. According to Ndlovu (2006) and Dhlomo (2006), the computer course has been beneficial to community members. Dhlomo (2006) observed that a number of community members who had attended the computer course were subsequently able to get jobs at the new Umlazi shopping centre. Educators who did not have access to computers during their training have also been able to become computer literate (Ndlovu, 2006). Although there are examples of how the computer course is benefiting the community by creating greater opportunities, at this stage it is difficult to predict whether the course will have a long-term impact on the socio-economic development of the community. These individual testimonies, however, do provide some justification to the impact of the training. Nevertheless for the training to be effective all centres need to be equipped with computers and offer computer skills training. In this way, more people can have physical access to these ICTs.

The challenge in relation to physical access to the computers and the other resources, especially workshop rooms in the KwaMashu and Maphumulo Centres, is space. Both Centre Managers identified a lack of space as a major challenge facing their centres (Dlamini and Centre Manager A, 2006). Space and lack of resources are also challenges for the computer centre as at present only ten learners can be accommodated at a time. Even the Lamontville Centre, which has double the number of computers, has a waiting list for computer training (Ndlovu, 2006).

In relation to physical access, these centres do address some of the barriers "that limit the ability of learners to physically locate themselves in an institution of learning" (Cassius-Lubisi, 2005). Teachers have access to computers, books, videos

and photocopying machines through these centres and consequently can improve the education delivery to the learners in the schools clustered around the centre. Schools that don't have electricity can use the libraries to enable students to watch videos that supplement their courses. However, in terms of physical access, there are still challenges to be addressed. Not all centres are operating at the same capacity or with the same resources as the Maphumulo Centre or Lamontville Centre and many, like the KwaMashu Centre, are awaiting computers. As previously mentioned, the lack of space in some of the centres is a challenge if the centres are to offer the range of training courses, workshops and resources envisioned in the Education Centres objectives.

Cost is another challenge facing development projects looking to create access to information resources and ICTs. The cost factor is a key factor in the urban-rural divide. As Lesame notes, although Internet access is increasing in South Africa, Internet service providers tend to be concentrated in major cities and urban areas and rural communities are forced to access the Internet through long-distance calls which make connectivity expensive (Lesame, 2005: 8). In the case of the Education Centres, the funding from the RNE is designed to assist in equipping the centres but the KZNDE has the overall responsibility for supplying the physical resources including computers. According to Stanley Langa, Regional Co-ordinator, the slow delivery of these resources is partly due to the slow procurement process in the KZNDE (2006). At the Maphumulo and Lamontville centres, despite having computers, there is no Internet service yet. The server at Maphumulo has been installed but is not connected.

The cost of physical resources is an issue facing many development projects. However, recent developments such as the launch of South Africa's second fixed-line telephone operator and the development of free software do potentially offer some solutions to the issue of cost. According to the chief executive of Neotel, Ajay Pandey, the second fixed line operator's strategic objective is to "reduce the cost of doing business in South Africa" (Mochiko, 2006). Although it may be a while before consumers benefit from the second fixed-line operator in terms of price, there is the potential for reduced Internet and broadband costs as a result.

The second development is the advent of free software. Schoolnet, a non-profit organisation, is currently using a version of the free Linux operating system, OpenLab, in all of its school computer laboratories (Thompson, 2006: 5). According to Thompson, Schoolnet is "one of a growing number of organisations in the developing world using

FLOSS[26], computer software written by groups of enthusiastic programmers and made widely available with the need for payment" (Thompson, 2006: 5). FLOSS includes word processing software and Firefox web browser (Thompson, 2006: 5). This free software is currently being used across the world in various development contexts. Thompson (2006) includes various examples such as the schools in Rio Grande do Sul in Brazil where the Free Education Network "uses software to teach young people how to use computers and support their learning" (2006: 5). This initiative could help projects such as the Education Centres potentially address some of the cost issues related to supplying ICT physical resources.

Epistemological Access

Whilst physical access is vitally important to development, development communication practitioners realised that simply providing the resources was not sufficient for development. The Modernisation paradigm of the 1950s and 1960s was criticised for its emphasis on the physical access component rather than taking into consideration the other access elements necessary for development, Melkote and Steeves (2001) emphasised that purely physical access to ICTs was not sufficient for development, "some prior knowledge is necessary to locate and evaluate the importance, utility, and relevance of the information received" (Melkote and Steeves, 2001: 264). This form of access can be described as epistemological access.

Cassius-Lubisi (2005) defines epistemological access as access which refers to "addressing the barriers that limit the ability of learners to acquire relevant knowledge and skills". In order to address epistemological access certain issues need to be considered. These include literacy, relevant curricula, the provision of quality teaching and appropriate texts and interactive IT software (Cassius-Lubisi, 2005). Thus when discussing access in relation to development, it is important to analyse the system that is in place for delivering the "knowledge and skills" required to effectively utilise these technologies. Epistemological access is also important for fulfilling the Millennium Development Goals of primary education for all and achieving a global partnership for development. The Education Centres and ICTs play a key role in facilitating these goals. The centres, through the access they provide to skills training, workshops and computer courses for the community and out of school youth, can improve the "youth

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[26] FLOSS is the acronym for Free Libre Open Source Software.

learning skills, [and their] employability" in a global knowledge economy (infoDev, 2005: 53). When the centres receive Internet access, the centres will be able to offer more opportunities to assist in achieving the Millennium Development Goals. Internet access will give the centres the opportunity to also provide access to "quality educational materials / resources" available through ICTs (infoDev, 2005: 53).

In terms of resources, the Education Centres provide resources such as books, computers and videos amongst other resources, and function as a venue for skills training and workshops. At present the centres are predominantly offering KZNDE workshops to school teachers and school administrators but it is the goal of the centres to offer a wide range of skills courses including Financial Management; Gender, diversity, democracy; Leadership skills; Computer training; Marketing and networking skills; Project Management and Entrepreneurship/Business skills amongst others (MiET, 2006a). It is also envisioned that the centres will also provide venues for learnerships as well. At present Mhle Mthimkhulu is meeting with various SETAs to assess which learnerships can feasibly be run from the Education Centres (Mthimkhulu, 2006a).

Combining access to the physical resources with skills training and education is important for development. With the emergence of the knowledge economy there is the greater emphasis on the "use of ideas rather than physical abilities and on the application of technology rather than the transformation of raw materials or the exploitation of cheap labor" (World Bank, 2003: xvii) and, as discussed in the previous chapter, skills training and a sound education system are vital for a developing country's survival in the global knowledge economy.

The education component of the Education Centres thus plays an important role. Not only do the centres offer school pupils a chance at a better education through providing access to resources that their own school might not be able to supply and through offering their teachers access to skills training and development, the centres also aim to offer the community access to knowledge and information to improve their skills and opportunities. At this point of the project, however, it is difficult to assess the benefit that the skills training will have on the schools and the community as many centres are yet to offer workshops and the centres that are currently hosting workshops are have only been doing so for a short period of time. However, if one is to refer to development communication theory, one can identify many arguments for improved knowledge and education in furthering development especially in relation to greater access to communication technologies. For example, the New World Information and

Communication Order (NWICO) argued that "the expansion of various forms of mass communication and in particular of audio-visual communication, combined with the spread of informatics" opened the links between education and communication (MacBride, 1980: 25). Thus when "endowed with a greater educational value, communication generates an "educational environment"" (MacBride, 1980: 25).

Computer skills training is also a key feature of epistemological access. The Modernisation paradigm was criticised with introducing technology without supporting the communities with knowledge on how to effectively utilise this access for their own development. Subsequently, digital literacy has become a point of emphasis in more current development communication theory and the Action Plan for the implementation of the UNESCO Universal Declaration on Cultural Diversity calls for digital literacy and thus "ensuring greater mastery of the new information and communication technologies" (Culturelink, 2002/2003: 190). As Lesame notes "access to ICTs provides a partial solution to high illiteracy and unemployment because access to technologies gives access to information, which empowers the technology user in various ways. Information is power. It leads to self-empowerment and could create self-employment." (Lesame, 2005: 6). However, the user cannot use the technology for self-empowerment if they do not possess the knowledge to utilise it effectively. If one takes as an example the income-generation projects encouraged by the centres. These projects are community based projects where the community is encouraged to examine their current skills and find a means of using these skills to generate income. Currently many of the centres have women doing beadwork, grasswork, ostrich leather shoes and belts (Mthimkhulu, 2006a). The centres project not only assists in providing and sourcing seed funding for these income-generation projects but the community then has access to computers and skills training to learn how to market their products and how to write and type a business plan. When the centres have access to Internet, the potential is also available for the communities to market their products online and even rural communities can communicate with urban areas through e-mail. The centres also offer workshops to improve the skills of the community groups. At the Lamontville centre an Institute Support Team (IST)[27] has been established to work with the Schools as Centres of Care and Support programme in schools and with the community. This IST will be attending

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[27] The Institute Support Team consists of a school principal, an educator, four community members (parents) and two out of school youth (Ndlovu, 2006).

a KZNDE workshop on decoupage so that they will gain skills to potentially generate income (Ndlovu, 2006).

The Education Centres provide a means to improved physical and epistemological access to information and knowledge resources; however, this epistemological access is not without challenges. The first major challenge facing the effective use of the skills training on offer at the centres is the issue of literacy.

Literacy has been recognised as an issue in development practice since Modernisation and development practice in the 1950s and 1960s. Lerner (1958) argued that "rising literacy has tended to increase media exposure; increasing media exposure has "gone with" wider economic participation (per capita income) and political participation (voting)" (Lerner, 1958: 46)

Literacy in the modern development context is still an important consideration for development in today's knowledge economy, "illiteracy in the developing world is a fundamental barrier to participation in knowledge societies" (Mansell and When, 1998 in Lesame, 2005: 4). South Africa still faces many challenges in relation to literacy and basic education, although this has improved and in South Africa in 2003 95.6% of boys and girls in South Africa have completed primary school and literacy in the 15 – 24 year age group (boys and girls) was at 93.9% for 2004 (United Nations, 2006a).

However, illiteracy and lack of formal education are still challenges faced by the communities where the centres are being established. The centres attempt to address this issue by offering facilities for ABET (Adult Basic Education and Training) training. ABET seeks address the issues of literacy and numeracy in South Africa. However, currently the Education Centres skills training workshops are restricted to those with a Grade 10 (Mthimkhulu, 2006a) and in the case of the computer skills training at Maphumulo Centre, only those with a Matric (those with Grade 10 or 11 are considered) and who can understand and speak English can participate in the course as the course instruction is in English (Centre Manager, 2006). According to the Centre Manager (2006) this is because

> when it comes to the terms that are used there because it set in
> English and now the tutor will end up saying to me because we just
> accommodating anybody but then she ended up saying I end
> up teaching English instead of teaching the computer itself because
> when I talk of highlighting something you find that a learner would say
> what is to highlight (Centre Manager A, 2006).

Until literacy improves and students are able to improve their level of English, access to the computer skills training remains restricted to those that can speak and understand English and have continued schooling to at least Grade 10. This means that, if one takes into consideration the Census 2001 statistics on education highlighted above, many community members cannot access these resources.

Again the development of free software could potentially assist in easing access for learners who are not confident in English. The benefit of FLOSS is that it is that, unlike with closed-source programmes, it is possible to adapt the programs to address local needs (Thompson, 2006: 5). As a result, organisations such as the South African Translate.org.za have been able to translate software into local languages (Otter, 2006: 4), as Dwayne Bailey, founder of Translate.org.za, observes "imagine how hard it is to learn to fly an aeroplane. Now imagine learning to fly it in a language that is not your home tongue" (Bailey, 2006 in Otter, 2006: 4). According to the South African census in 2001, English, despite being the language of commerce, it was only spoken at home by 8.2% of South Africans (Statistics South Africa, 2001). This means that offering software in the official languages of South Africa; more South Africans can have access to the benefits of the software. The use of this software would also mean that the issue raised by the Centre Manager at Maphumulo of the computer training session becoming an English lesson would be eliminated. It does not however, address the fact that the language of commerce in South Africa is English. As the Centre Manager observes "it is a fact that English is an international language ... what's the use giving them something that that won't benefit them in the long run?" (Centre Manager, 2006). As long as the language of business in South Africa remains English, community members without English proficiency will be at a disadvantage. This again, however, is an issue that could potentially be addressed by ABET.

Another point for discussion with regards to epistemological access is the question of educating communities to interpret the information that these ICTs provide. The MacBride commission in its report highlighted the need for education to acknowledge the impact and role of communication and to guide communities in interpreting the information and in their recommendations, the commission called for education systems to prepare their students for the impact of communication activities. This would allow students to better understand reality (MacBride, 1980: 256). In terms of the computer skills training available at the centre, the training focuses on the basics of how to use Microsoft Word and Microsoft Excel and basic business skills such typing

a letter or Curriculum Vitae. There does not appear to be training in how to interpret the impact of these technologies. The question is, is this necessary considering some of the students have never seen or used a computer prior to the course? The students understand the impact in so much as that the course will offer them greater opportunities for employment. Whether the course needs to consider educating the learners on the impact of these communication technologies is an issue that would require further research and the Education Centres project to have been in operation for a longer period.

Literacy, cost and space are all challenges facing these Education Centres, however, the lack of Internet access is a key concern in terms of physical access and epistemological access. Without access to the Internet, the community is not open to the full benefit of Information Communication Technologies. According to the final report of the Digital Opportunity Task Force (2001)

> Precisely because the digital revolution has the power to transform production processes, commerce, government, education, citizen participation and all other aspects of our individual and collective lives, it can create substantial new forms of economic growth and social development. Therefore, access to, and effective use of the tools and networks of the new global economy, and the innovations they make possible, are crucial to poverty reduction, increased social inclusion and the creation of a better life for all (DotForce, 2001 in Lie, 2005: 121).

Although, Lesame (2005) notes that "the presence of ICTs and the existence of the necessary technological infrastructure do not guarantee development and economic benefits. Technology must be used effectively to solve local development problems and create positive results" (Lesame, 2005: 14). There is little doubt that access to the Internet offers communities a range of new potentials in terms of networking and information supply (Lie, 2005: 120). Until all centres have Internet access, the possible potential of the Internet for communities to engage in information gathering, marketing of their income-generation projects online and the opportunity for individuals to find employment online. Once centres such as Maphumulo, KwaMashu and Lamontville have Internet access, it will be easier to assess how this access has benefited the community from a social and economic improvement perspective and to gauge whether this connectivity is being used effectively to solve local development problems.

Socio-cultural Access

The final type of access which Cassius-Lubisi (2005) identifies is the socio-cultural access. Socio-cultural access is described as referring to refers to "rendering our institutions as homes for all, institutions in which learners and educators are happy to learn and teach, respectively" (Cassius-Lubisi, 2005). This description refers specifically to education, however, it can relate to access to ICTs and other resources.

When discussing socio-cultural access, the issues that arise are race, gender, multilingualism, class integration as well as sensitivity to the location of the school or educational institution (Cassius-Lubisi, 2005). These issues relate to the social and cultural environment in which the education takes place but can also relate to the social and cultural environment in which the centres operate.

In terms of the environment where the centres operate, it is important to consider the issue of the urban-rural divide. The Education Centres project aims to address the issue of centres and access in both rural and urban areas. In terms of physical resources allocated to centres, no discrimination is made between rural and urban. For example, Maphumulo has a computer centre whilst KwaMashu is still waiting. The challenge facing the rural centres is the issue of infrastructural requirements as outlined in the MiET centre selection requirements[28]. The Education Centres project has identified the challenges facing rural schools and these challenges are outlined in their business plan. They include:

- Isolation in terms of access and communication;
- Lack of resources;
- Limited capacity on the part of the KZNDE and its districts to manage and support education delivery to rural schools effectively;
- Lack of access to Information and Communication Technology (ICT) and required skills;
- Lack of infrastructure, such as roads, telecommunications, power, water, and facilities for safe storage;
- Inadequate opportunities to improve Learning Area and Subject knowledge and professional competencies of teachers;
- Problems of security;
- Ineffective distribution, procurement, management and utilisation of resources;
- Limited access to service providers, technical support and specialised services; and
- The detrimental impact of HIV and AIDS (MiET, 2005b: 4).

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[28] Refer to Appendix I for the selection of centres criteria

In terms of these challenges, the Education Centres in rural areas are thus vitally important for the development of these communities and it is imperative that they provide access to physical and epistemological resources discussed. The infoDev also highlights that "ICT projects that reach out to rural areas might contribute more to the MDGs [Millennium Development Goals] than projects in urban areas (infoDev, 2005: 50). Due to the Education Centres project still being in the early stages; it is not possible at present to fully assess whether the rural centres contribute more to achieving the Millennium Development Goals than the urban centres. This issue would however, be a consideration for future research on the Education Centres.

Gender and access is not only an issue under the heading of socio-cultural access as defined by Cassius-Lubisi (2005) but also a concern in the current global development context. Within the Millennium Development Goals there is a requirement to "promote gender equality and empower women" (United Nations, 2005). This is a concern for many developing countries and according to the Millennium Development Goals Report 2006, "women inch forward in labour markets of all regions, though deep inequalities remain" (United Nations, 2006: 8). In sub-Saharan Africa the position of women, although not at the ideal, is improving, more so than in regions such as northern Africa, southern and western Asia. In relation to access to the Education Centres project, the centres are open to all members of the community. According to Mthimkhulu (2006a) access by women to the centres is not an issue. In fact, she observes that there are mostly women attending the centres "you know why because women are always at home during the day in rural areas as the men are at work or in Joburg" (2006a). However, gender is still an issue for consideration in terms of the Education Centres project. Under the recommended supplementary programmes envisioned for the Education Centres, the issue of gender equity will be addressed through "capacity-building programmes that sensitise centre management teams and users to gender issues" (MiET, 2005b: 13). Other actions to address gender issues will be through ensuring gender equity in the centre management and governance structures and by ensuring that all members of the community are heard (women, men, girls and boys) are heard during needs assessments (MiET, 2005b: 13). Mthimkhulu (2006a) observes that in the rural areas when establishing the centres, they have to be careful as they can be "chased away because men will be saying that you have come to enlighten the women". Whether these centres can address gender issues through programmes highlighting

gender equality will need to be assessed once these programmes are in place and have been in operation for a longer period of time.

When discussing socio-cultural access it is also important to highlight the question of culture in a development project, as with gender, culture is a sensitive issue in relation to development especially in rural communities. In terms of Development Communication Theory, the 3Ds paradigm of development emphasised the importance of culture in development. This was in contrast to the Modernisation paradigm which was criticised for taking a simplistic view of the developing community with a distinct lack of emphasis on cultural factors (Ansu- Kyeremeh, 1994: 19 – 21). ICTs are seen as having the potential to contribute to a multicultural dialogue (Montiel, 2002/2003: 21). However, a lack of access to these technologies limits the ability of the country to be included in a global culture (Montiel, 2002/2003:36). Thus access and especially epistemological access needs to be considered in relation to the socio-cultural context. As discussed in earlier in relation to epistemological access, there is a need for the physical access to ICTs to be accompanied by training in how to interpret the information. As the UNESCO World Report notes

> One of the skills needed for learning to learn is the ability to
> located, classify and sort the information that is now to be found
> everywhere, for instance (but not only) on the Internet – this is what
> "information literacy" is about. Only if this condition is met will students,
> put in front of a computer, be taught not just to be simple users, but to
> make active, rather than passive, use of it, and to adapt it to their uses
> and to their culture. (UNESCO, 2005: 74).

The fear is that without teaching users to be active rather than passive, that there will be a homogenization of content and culture and this is a key concern for the development practitioners within the 3Ds paradigm. The 3Ds argue strongly for the preservation of culture in development, "cultural diversity is under threat from globalisation as homogenisation of tastes, values and languages creates a greater market for consumption of cultural products as commodities (Montiel, 2002/2003: 33).

Despite the argument for greater cultural awareness and education on the impact of ICTs, there are counter arguments. Lesame (2005) points out that issues such as the "contents of the web, language deficiency (English) and other barriers should be dealt with at later stages of ICT development, once issues of access have been resolved" (Lesame, 2005: 1). In relation to a development project such as the Education Centres, the logic of Lesame's argument is valid. The project is still in the early stages and at present there is a pressing need to revamp and open the remaining centres and equip

the current centres with ICTs. Thus physical access is the key concern at the current stage of the project. Providing epistemological access is also important as offering skills training for the community and educators aligns with the centres objectives. The issue of socio-cultural access, however, can only really be assessed once the project has been in operation for a longer period and a larger number of community members and educators in both urban and rural settings have had accessed the available resources and a research can be conducted to gauge the cultural impact of ICTs on the community.

Questions and debates on Access

Although access is a fundamental issue in development and through providing physical, epistemological and socio-cultural access the development objectives of the Education Centres project and the Millennium Development Goals are more likely to be achieved, there are no guarantees. As Lesame (2005) notes

"there is a growing belief among development specialists
and technology users that ICTs can lead to socio-economic
development, if used effectively. However, the presence of
ICTs and the existence of the necessary technological infrastructure
do not guarantee development and economic benefits. Technology
must be used effectively to solve local development problems and
create positive results" (Lesame, 2005: 14).

Although the Education Centres do offer physical and epistemological access (and aim to address socio-cultural access) to ICTs for the community, it is too early in the project to assess whether this access will result in significant socio-economic development for the communities on the macro-level. On the micro-level, there is already evidence in the personal testimonies of Thandi Mthethwa (2006) and N. E. Dhlomo (2006) of community members finding employment as a result of the computer skills they gained from accessing the centre. Thus these Education Centres currently do present opportunities for socio-economic development on the micro level through the physical and epistemological access they provide to ICTs and skills training. The main challenges that need to be addressed currently are ensuring all centres provide access to the required physical resources and that all centres have Internet connectivity. The slow delivery of these physical resources has been due to the slowly delivery from the KZNDE, however, both Ramdas (2006) and Mthimkhulu (2006a) note that the new

appointment of a dedicated staff resource at the department, Jabu Bhengu, will assist in improved delivery.

One final potential challenge to access that needs to be discussed briefly, is the shift in mindset from those working for the KZNDE that the centres are predominantly for educators rather than the community. One of the challenges to date highlighted by Ramdas (2006) is the need for school communities to see the centres as belonging not only to the schools but to the community. As the centres begin to offer more to the community, not only will the centres offer the communities physical, epistemological and socio-cultural access to information and knowledge resources but will also encourage community ownership and assist in the long-term sustainability of the centres.

CHAPTER 7: SUSTAINABILITY AND THE EDUCATION CENTRES

In the previous chapters, the importance of access and participation in a development project have been discussed and these features have been highlighted as vital for the project to achieve social and economic improvements, however, the true measure of a development project is its long-term sustainability.

Sustainability is linked with the issue of local ownership. During the period of Modernisation in the 1950s and 1960s, the nature of the development projects were determined by outside agencies. With the paradigms, such as Dependency Theory, that emerged in reaction to Modernisation there was a greater emphasis on participation by the developing community in determining their development needs and the "independence of local communities (or nations) to tailor development projects to their own objectives" (Melkote and Steeves, 2001: 199). This increased participation by the communities in 'tailor-making' the development project leads to a greater sense of ownership and ownership is vital for the sustainability of a development project.

Servaes (2002) refers to the UNESCO Language on Development which highlights access, participation and self-management as key features of development projects. The issues of access and participation and their role in development and the Education Centres project have been discussed in the previous sections. Self-management, Servaes (2002) notes is the "most advanced form of participation" and this is where the community exercises its power in decision-making (Servaes, 2002: 85). Self-management cannot occur without the community feeling a sense of ownership.

At present the Education Centres are a joint initiative between the Media in Education Trust and the KZNDE, however, the centres belong to the KZNDE and at the end of the Education Centres supporting Rural Development project in 2009, when MiET and RNE cease to be involved, the centres will belong to the department. Nevertheless, in order for the schools and communities to benefit from the centres, they need to feel that they own the centres. Creating ownership was part of the decision to use PRA. It was important for the centres to address not only the needs of the schools and educators but also the community. As Mthimkhulu (2006a) notes "the department focuses mostly on learners and teachers but then at the centre we are looking at the centre as a hub whereby not necessarily just teachers and learners should come but also the wider community". Through the PRA, MiET is able to identify the needs of the community and the educators. The PRA means that MiET is able to assess what skills

training takes place at the various centres and that it meets the needs identified by the community. It is important that the skills training conducted at the centres addresses the needs of the community and can assist them with the income-generation projects they have identified.

Ownership of the project is important for its sustainability. A sense of ownership by the community can assist the centre in terms of security and it also means that the centre's functionality is maximised. Mthimkhulu (2006a) gives an example of a centre that was established in the North West province during the Multimedia Rural Initiative pilot project. This centre was burgled but by the second day the women came with the computers on their heads and brought them back to the centre, "so it really works if you involve the community" (Mthimkhulu, 2006a). As the value of the centre becomes evident to the community, the more the community will take ownership and ensure the centres sustainability. Mthimkhulu (2006a) gives another example of another centre in the North West[29]. This centre identified during the PRA that sewing was a skill that the women in the community had and that they wished for a space where they could sew together and learn from each other. Space at an Education Centre was provided and as a result, the cluster schools started buying the school uniforms that the women were making. Mthimkhulu (2006) observes that as the sewing was generating income, "how can they go now and steal?" The sense of ownership also works to motivate the communities. For example, one can refer to the taxi driver discussed in the participation analysis who at Ngoma during the PRA observed that for the first time in his life he was sitting with school principals and school inspectors and this motivated him to offer his taxi to fetch the teachers for workshops (Mthimkhulu, 2006a).

For the centre to be sustainable, other issues need to be addressed besides creating a sense of ownership in the community. As discussed earlier, participation is one key to a successful development project. Thus for these centres to be sustainable all stakeholders need to continue to be involved in the centres and the KZNDE needs to ensure that the centres continue to extend to the community and do not limit themselves to educators and learners once MiET's involvement has ended. Therefore participation extends to issues of access. The community must feel that it can access the resources at the centre and that these resources are relevant to their needs.

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[29] The Education Centres supporting Rural Development programme is running concurrently in KwaZulu-Natal and the North West province.

Another key issue for the sustainability of the centres is the role played by the centre manager. Although the centre manager cannot control the delivery of resources, how they envision the centre operating is important to the centre's sustainability. The centre manager needs to ensure that the centre is involved in the community and that the community feels that the centre is for them. The KwaMashu Education Centre, for example, has held a number of events at the centre to highlight the centres role in the community. These activities included a Mass Reading Festival in October and arranging for the Home Affairs Mobile Unit to be available at the centre during November to allow community members to come and apply for Identification documents, birth certificates and grants (Dlamini, 2006). The Lamontville Centre has various programmes running from the centre including the computer skills training, the Schools as Centres of Care and Support and LoveLife programme (Dhlomo, 2006).

Access, therefore, like participation is important for the sustainability of the centres. The centres need to address not only physical access but the issues of epistemological access and socio-cultural access as well. Perhaps one of the main challenges with regards to access and the sustainability of the centres is the lack of ICTs in communities. Although community members may have access to computers and ICTs at the centres, they are unlikely to have access to computers in their homes. The Centre Manager at Maphumulo (2006) observed that

> the challenge they [the learners attending the computer skills training]
> say they have is that they don't have computers at home to go and
> practice whatever that they learnt here so they do feel that maybe as time
> goes on just like getting a drivers licence if you don't have a car to practice
> you end up not knowing how to drive (Centre Manager A, 2006).

This access to ICTs is a challenge facing ICT development projects. In 2004 there were 7.89 Internet users per 100 persons and only 8.27 personal computers per 100 persons in South Africa (United Nations, 2006a). This is in contrast to much higher Internet and personal computer access in developed countries where over half the population have access to the Internet (United Nations, 2006: 25). The issue of access, however, may well be addressed in the future through mobile phone technology. In 2004, Africa gained approximately 15 million new mobile phone subscribers (United Nations, 2006: 25).

Funding and the cost of maintaining the centres is also likely to be a challenge to the long-term sustainability of the Education Centres. According to Conradie et. Al in their discussion on the telecentre in the Tsilitwa community of the Eastern Cape, one of the major stumbling blocks to the success of telecentre initiatives in South Africa

(notably the intervention of the Universal Service Agency - USA) had been the long-term economic sustainability (2003: 200). The Education Centres around KwaZulu-Natal belong to the KZNDE. Ultimately the KZNDE will take over all costs for the centres and from 2007 they will be responsible for paying the centre management salaries. Mthimkhulu (2006a) feels that this 'buy-in' from the department will help to ensure the economic sustainability of the centres. This project has also formed the pilot for draft regulation for the KZNDE's policy on Education Centres. The policy document aligns the establishment of Education Centres with the Master Strategic Plan of the KZNDE (KZNDE, 2004: Annexure 1) and proposes objectives and budgets for the establishment of these Education Centres in KwaZulu-Natal (KZNDE, 2004: 3 - 7). Mthimkhulu (2006a) views the inclusion of Education Centres into department policy as an important step towards the long term sustainability of the project.

Centres, such as Lamontville, are also taking their own responsibility for their sustainability. At the Lamontville Centre, the centre does not charge for the venue for workshops if the organisers of the workshop use their in-house catering service and pay for the catering. If they use their own caterers, the organisers of workshops have to pay for the venue (Ndlovu, 2006). This is just one example of how one centre is taking ownership and looking for means to ensure its long-term sustainability.

Thus although the Education Centres project faces a number of challenges, there are positive indicators for its long-term sustainability, especially with the role played by the KZNDE. The department, however, will have its own challenges in sustaining these centres and ensuring that they are fully equipped with regards to physical resources and staff resources and that they continue to work with the community and address community needs in the projects and programmes they support.

CONCLUSION

Despite facing many challenges in the areas of participation, access and sustainability, the Education Centres project does provide a potential solution for addressing development issues in South Africa. These issues include improving education delivery, bridging the digital and rural-urban divide and improving the social and economic conditions of the communities where the centres are based.

The key challenges that need to be addressed at present are those of physical resources in terms of equipment and staff. In order for the centres to begin offering the variety of programmes and services, they need to be renovated, upgraded, equipped and fully staffed, although it is testament to the project that the centres that are still operating even without all the resources.

A key resource that is needed in centres like Maphumulo and Lamontville which are already offering computer skills training is Internet connectivity. With this connectivity the service that these centres offer with the computer skills training can be expanded and thus offer the community access to more knowledge and information. The delivery of these resources rests primarily with the KZNDE and it is vital that the department show its commitment to the project not only for the centres to access these resources but also for the project to be sustainable in the long-term. Despite an initial uncertain start, the department does appear committed to the project.

The Education Centres project is still in its infancy; however, there are already successes. The computer skills training is just one success to date of these centres, the other success, although still in the early phases, are the income-generation projects. These projects will directly improve the economic conditions of the communities and also reinforce community ownership in the centre as the centres are valuable to the generation of income. The personal accounts related in this research illustrate that there are, albeit only a handful, individual instances where the centres have made an impact on community members lives.

The key challenge faced by this research is the early nature of this development project. What has been presented is the foundation on which this researcher aims to build further. In order to accurately gauge whether the Education Centres presents a model for future centre-based development projects in South Africa is yet to be seen. Research into how the project continues to address its objectives needs to continue as the project grows and more centres are established. The project as outlined in the

Business Plan (MiET, 2005) presents the framework for a development project that will address issues of social and economic development, access, participation and sustainability. However, whether the model is viable and successful will need to be determined as the project continues.

This researcher recommends that the stakeholders involved in the Education Centres project use these observations and analyses as a foundation for further monitoring and evaluation taking into consideration the challenges highlighted in this research of the importance of physical resources (including Internet connectivity) and creating avenues for communities to better understand the technology that they are accessing through the centres. This understanding will assist in achieving greater epistemological access.

Finally, this researcher recommends that the community continue to be involved in the centre and determining what is offered at the centre. In this way the centre will continue to be 'owned' by the community. It is this ownership that will not only assist with socio-cultural access but will also help ensure the long-term sustainability of the Education Centres project.

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APPENDIX A

OVERVIEW OF MIET

Established in 1993, the Media in Education Trust (MiET) began as the Media in Education division of the Education Foundation and broke away in 1996 to form the current organisation. The organisations is governed by a Board of Trustees chaired by Professor John Volmink and aims to improve education delivery in South Africa by "empowering school communities, especially those in disadvantaged rural areas, to access, use, evaluate, manage and share educational media and resources" (MiET, 2005c).

The organisation currently works in the following areas: materials development; course development and training; distribution; clustering of schools around resource centres and internal monitoring and evaluation (MiET, 2005c).

The objectives that underlie their projects include facilitating school communities (especially those in disadvantaged rural areas) in using and accessing a range of media and other resources to improve education delivery and help meet the school community's development needs; to aid in the development of teaching and learning support materials; to produce and develop educational materials and ensure they are distributed into schools; promoting media literacy, critical-thinking and democratic citizenship; developing and offering accredited and non-accredited training in resource-based teaching and learning as well as helping to counter the spread of HIV/AIDS by assisting schools communities cope with the effects of the pandemic (MiET, 2005c).

The Education Centres Supporting Rural Development is an example of a project which embraces these objectives whilst also following the current trend in ICT development related projects in South Africa which use a centre approach to facilitate ICT access.

APPENDIX B

OVERVIEW OF MMRI

The Multimedia Rural Initiative (MMRI) was started by the Media in Education Trust, in partnership with Multichoice Africa Foundation and the KwaZulu-Natal and North West province education departments. The project established a network of mostly school-based resource centres (MiET, 2005b: 3).

The aim of the project was to "pilot and refine a model that combined ICT with other school resourcing and human resource development strategies to meet the specific needs of rural, and isolated deep-rural school communities, within the context of current education policies and strategies" (MiET, 2002: 3). MiET and their partners were involved in establishing the centres and training the facilitators in using the resources. Multichoice supplied the technology and telecommunications access whilst MiET was involved in developing the material and training the facilitators. The result was that these centres brought a combination of "computers, satellite technology, television, print materials, user-support and other human capacity development strategies to clusters of schools in the deep rural areas of the two provinces" (MiET, 2004: 8).

As an organisation specialising in media for educational purposes, MiET's work is closely tied to the South African government's educational policy. The MMRI was therefore situated within the aims and policies of Outcomes Based Education (OBE) and Curriculum 2005. This initiative combined ICTs and educational tools to create a development-centred initiative centred on teacher development as the means to community development.

Schools in a particular area were linked in a cluster and share the ICT resources. School clustering has been highlighted as an effective solution to a common set of problems such as isolation of schools, limited resources and insufficient teacher development support (MiET, 2004: 10). The cluster approach maximised the centres efficiency and had the additional benefit of sharing resources among a number of schools. It acted as a balance between entirely dispersed facilities and totally concentrated facilities as a result these centres, shared by the schools, can become "vibrant centres of community life and learning" (Botha, 2002 in MiET, 2004: 15).

APPENDIX C

QUESTIONS FOR CHRIS RAMDAS

Interview on the 24 July 2006

Introductory
1. What is your role in the Education Centres Supporting Rural Development Programme?
2. What do you feel are some of the key development issues South Africa faces?
3. How do you think that a programme like the ECSRD combats those development issues?
4. How was the project first communicated to the communities and schools?
5. How are the further developments communicated?
6. What has been the communities' response?

Objective 1
1. Under the first objective, in point 1.6 Establish relevant district, circuit / centre structures, it is observed that there has been uneven development due to uneven distribution of and availability of resources – is this due to the finance issues from the KZNDE? What other factors could have contributed to this?
2. Under the same point – comment that "not all stakeholders appear to take ownership of the programme" – why is this? Who has not taken ownership? Why is ownership important in this programme?

Objective 2
1. The goal was 63 centres, yet only 60 were counted for the end of year 1. A lack of a fast-track procurement process and dedicated capacity from the KZNDE are cited as reasons – how has this impacted the programme? Are the 60 centres the same that were already established under the MMRI? Have any centres taken initiative for their own renovation?
2. How has this issue been addressed?
3. What is the relationship between the schools and centres?
4. What is the relationship between the communities and centres?
5. What are the important differences between the different types of centres?
6. What is the breakdown in terms of the types of centres? Free-standing, centres in schools, RAIN distribution points.

Objective 3
1. Why in your opinion are skills development and training important elements of this programme?

2. What has been the response to the training to date?

3. What are some of the challenges relating to skills development training in a rural context?

4. How does the ECSRD hope to overcome these challenges?

Objective 5
1. What has been the response to the educational programmes listed under point 5.5?

Objective 6
1. What has been the response to the *Schools as Centres of Care and Support* project?

Gender Equity, democracy and Human Rights
1. Are these programmes being considered as yet?

Local ownership and Sustainability
1. How is local ownership and participation being encouraged?

2. What are the steps to sustainability?

3. Is there a time frame for MiET and KZNDE's involvement?

4. Establishing these centres in rural communities – what attention has been paid to traditional / cultural practices that exist in the community?

Summary Questions
1. How would you rate the success of the project to date?

2. What would you identify as the key successes?

3. What would you identify as the major challenges and how will MiET address these in the second year?

4. How would you rate the level of confidence and trust in the programme at present?

5. How is MiET attempting to prevent communities losing confidence and trust in the programme?

6. What are the main challenges faced by the project from the communities?

7. What are the main challenges facing the communities?

8. What are the main challenges faced from the programme stakeholders?

9. What are the main challenges faced by MiET?

10. What are the main goals for 2006/2007?

APPENDIX D

QUESTIONS FOR MHLE MTHIMKHULU (PERSONAL INTERVIEW AND EMAIL INTERVIEW)

Personal Interview on the 27th July 2006.

Introductory
1. What is your role in the Education Centres Supporting Rural Development Programme?

Logistics
1. How many centres have been established to date and are operating as centres?

2. How many of these are district, free-standing, school-based and communication?

3. How many sites have been identified to date?

4. Which or what centre would you say is nearest the ideal?

5. What is the status of most of the sites with regards staff, resources, operations etc.?

6. What are the challenges of access to the centres?

7. What are the challenges with regards to available infrastructures?

Participation, Ownership and Sustainability
1. How have the communities selected for centres participated in the process?

2. How have developments etc. been communicated to the communities?

3. How would you describe the response of communities and schools so far to the project?

4. What tools have been used to involve the communities in developing the project?

    a. How and why was a PRA conducted?

    b. What were the benefits of this?

    c. Did it contribute to greater participation and ownership?

5. How will the community gain ownership of the project? What steps, if any, are in place?

6. Why is ownership by the community important?

7. How will the sustainability of the centres be ensured?

Skills Development

1. What training has occurred to date at the centres?

2. What has been the response to the training?

3. What factors have been considered when selecting training for centre staff?

4. What factors have been considered when selecting training/workshops for the community? (Discuss training programmes in First Year Report)

5. What income generation projects do the centres plan to offer?

6. What learnerships do you hope the centres will be able to offer (aside from those in Chemical Industry and Agricultural SETA)?

7. Mention of Charlton Education Centre – farm workers involved in skills development programme – more information.

8. What are some of the challenges relating to skills development training in a rural context?

Objective 5

1. Reference 5.3: What were the educational and socio-economic programmes that school principals and administrators were to be trained on?

2. What has been the response to the educational programmes listed under point 5.5?

Resources, ICT and Access

1. What resources do the centres provide?

2. What types of ICTs can the schools and communities currently access?

3. What are the ICT programmes that are or will be on offer?

4. What are the goals as regards ICTs at the centres (what types, quantity, quality etc.)?

5. How will MIET and KZNDE ensure that the ICTs are used effectively?

6. What kind of training will centre staff, teachers and the community receive with regards to using ICTs?

7. What role does the programme foresee for ICTs?

8. What are the challenges of access?

9. How are these being overcome?

Security and Crime

1. How do the centres address security and crime issues?

Schools as Centres of Care and Support
1. How has the Schools as Centres of Care and Support project been implemented?
2. What has been the response to the Schools as Centres of Care and Support project?
3. How has it affected the Education centres project?

Summary Questions
1. How would you rate the success of the project to date?
2. What would you identify as the key successes of the project to date?
3. What would you identify as the major challenges and how will MiET address these in the second year?
4. How is MiET attempting to prevent communities losing confidence and trust in the programme?
5. How would you rate the level of confidence and trust in the programme at present?

Email Interview on the 4th of November 2006.

PRA
1. In the PRA 2 sessions were conducted – what was covered in the second session?
2. In the PowerPoint about the PRA it was noted that KZNDE officials and out-of-school youth were left out of the PRA. Why was this?

Internet Connectivity in the Centres
3. Who is supplying the servers to connect to the Internet? Who is funding the Internet connectivity?
4. Who are the IT training providers? How were they selected?
5. Does their training material take into consideration literacy levels, the context of the centre etc.?
6. Once the community members have been for computer training, how much access do they have to the computers to type CVs, send emails etc.?
7. What opportunities do the communities have to market the products from their income-generating projects online?
8. The computer skills training was to have started on the 14th of August, to date what has the response to the training been?

Income-Generation Projects

    9. What besides the income-generation projects is being done to help the youth find employment?

Real-life stories

    10. Do you have any examples of individuals or community groups who have benefited from the Education centres? Someone who has found a job after being for computer training, a community group using the centre for their income-generation project who have received a large commission etc.

APPENDIX E

INTERVIEW QUESTIONS FOR EDUCATION CENTRES

Interviews conducted on 26th October and 7th November 2006

General
1. What type of centre is it?
2. What resources does this centre offer in terms of
    -   Physical resources
    -   Training programmes
    -   Youth and adult forums
    -   Income-generation projects
3. At what stage of operation is the centre?
4. Is the centre in an urban, semi-urban or rural area?

Access
1. Who are accessing the resources at the centre? Is it the whole community or just teachers and learners?
2. What are the most popular resources?
3. Is there an example of an individual or group that have benefited from access to the training programmes?
4. What has been the general reaction to the computers?
5. Is there an example of an individual or group that have benefited from access to the ICTs?
6. Who has supplied the physical hardware such as furniture, computers, etc.?
7. Who has supplied the software?
8. What challenges does the community face in accessing the centre?

Participation
1. In your opinion has the community welcomed the centre?
2. Is the community involved in staffing the centre?
3. Is the community involved in driving the adult and youth forums?
4. Has MiET and/or KZNDE involved the community in the process of establishing the centre?

Sustainability

5. Do you see the centre as being sustainable?

6. What are the main challenges to the sustainability of the centre?

Socio-Economic Improvements

7. What improvements in the community have you observed since the centre was established?

8. Is there an example of an individual/s who has a personal story of how they have benefited from the Education centre?

9. What, in your opinion, are the greatest challenges facing this centre?

10. What would you say is the greatest success of this centre?

APPENDIX F

OVERVIEW OF MAPHUMULO CENTRE

Region: Ethekweni
District: Ilembe
Centre Manager as at 26 October 2006: Centre Manager A

This is an existing centre in a rural area. Facilities at the centre include:

- A library which is supplies books, videos and televisions to the +/- 25 schools that cluster the centre. The books are supplied by MiET, ELITS (library service) or which the centre has bought from their own budget.
- There is one training / workshop where workshops are held for teachers and public servants of the education department.
- There is a small boardroom.
- One photocopy machine room to be used by the schools. Section 20 schools do not have to pay and Section 21 schools, the money from photocopying is deducted from their budget.
- There is a small computer centre where a maximum of 10 learners can be taught basic computer skills. The course is four weeks of 2 hour sessions, after which they receive a certificate of attendance from the KZNDE. The cost of the course is R100.
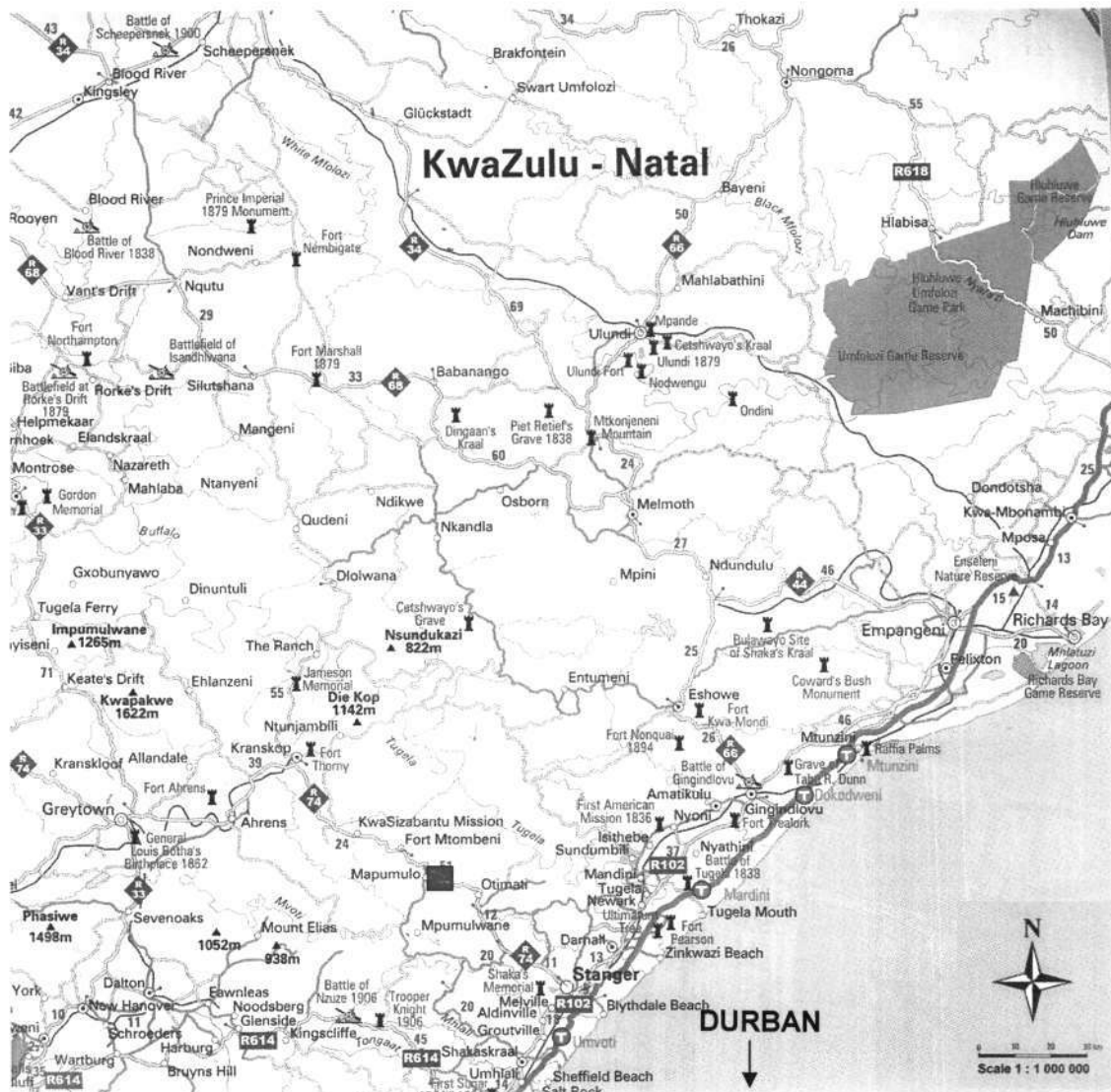

Photograph: Kathryn Gush

Figure 4: Maphumulo Centre

Photograph: Kathryn Gush

Figure 7: Computer Centre at Maphumulo

Location Map

- Maphumulo Centre

Figure 8: Location of Maphumulo Centre

Reference: MapStudio

APPENDIX G

KWAMASHU CENTRE (NTUMZUMA)

Region: Ethekweni
District: Pinetown
Centre Manager as at 26 October 2006: E. N. Dlamini

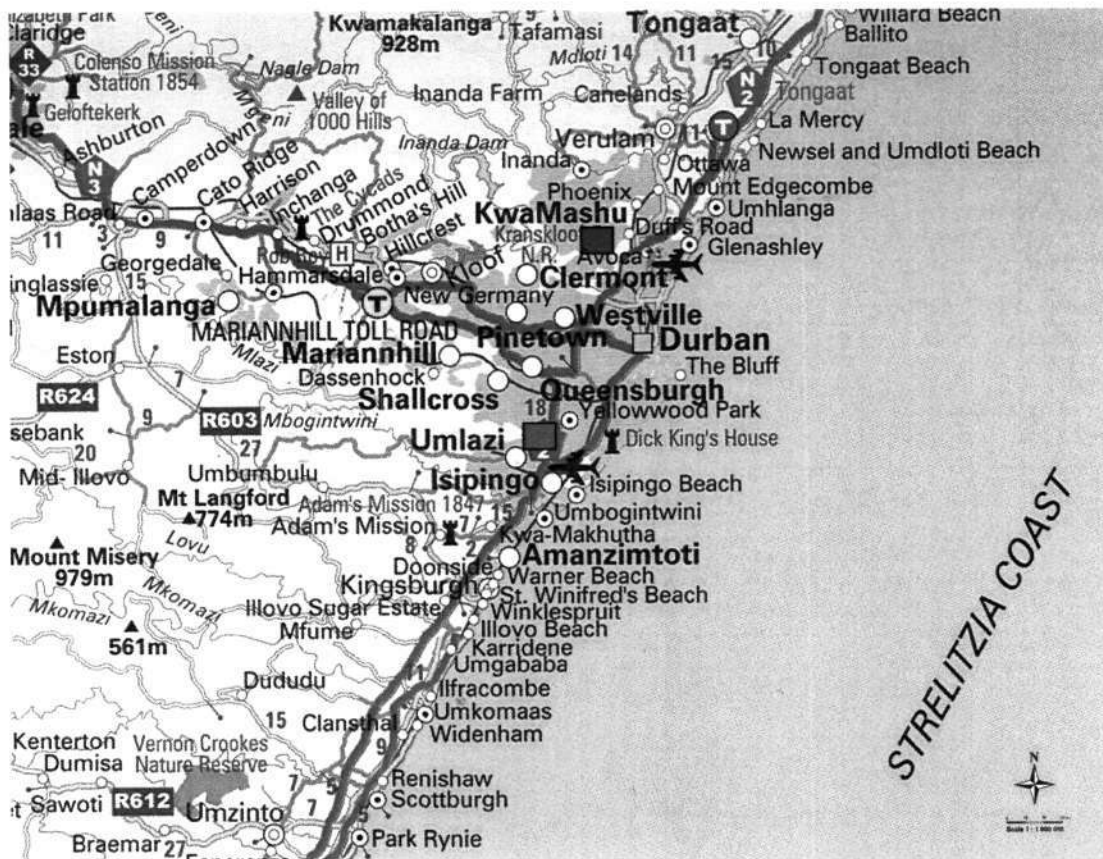This is an existing centre in an urban area. Facilities at the centre include:

- A library
- There are three workshop rooms (1 hall and 2 classrooms). These provide space for workshops which are mainly from the Department of Education.
- Computer Centre is in the pipeline but does not currently exist.
- Photocopying services to schools authorized through cluster office – they do not accept cash.
- Caters for 13 schools (3 high schools, 10 primary schools)

Photograph: Kathryn Gush

Figure 5: KwaMashu Centre

Location Map

■ - KwaMashu Centre

Reference: MapStudio

Figure 9: Location of KwaMashu Centre

APPENDIX H

OVERVIEW OF LAMONTVILLE CENTRE

Region: Ethekweni
District: Umlazi
**Centre Manager as at 26 October 2006:** N. E. Dhlomo

This is an existing centre in an urban area. Facilities at the centre include:
- A library (that is currently not operating)
- There are several workshop rooms. These provide space for workshops from the Department of Education and MiET.
- There is a Computer Centre with 20 computers.
- Photocopying service to schools but machine is not very big or able to offer same level of service as the KwaMashu and Maphumulo centres.
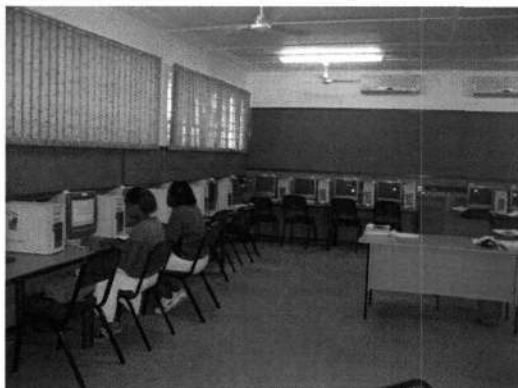- Currently caters to approximately 25 schools.

Photograph: Kathryn Gush

Figure 6: Lamontville Centre
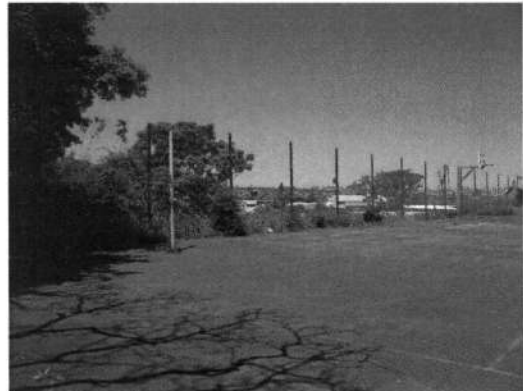
Photograph: Kathryn Gush
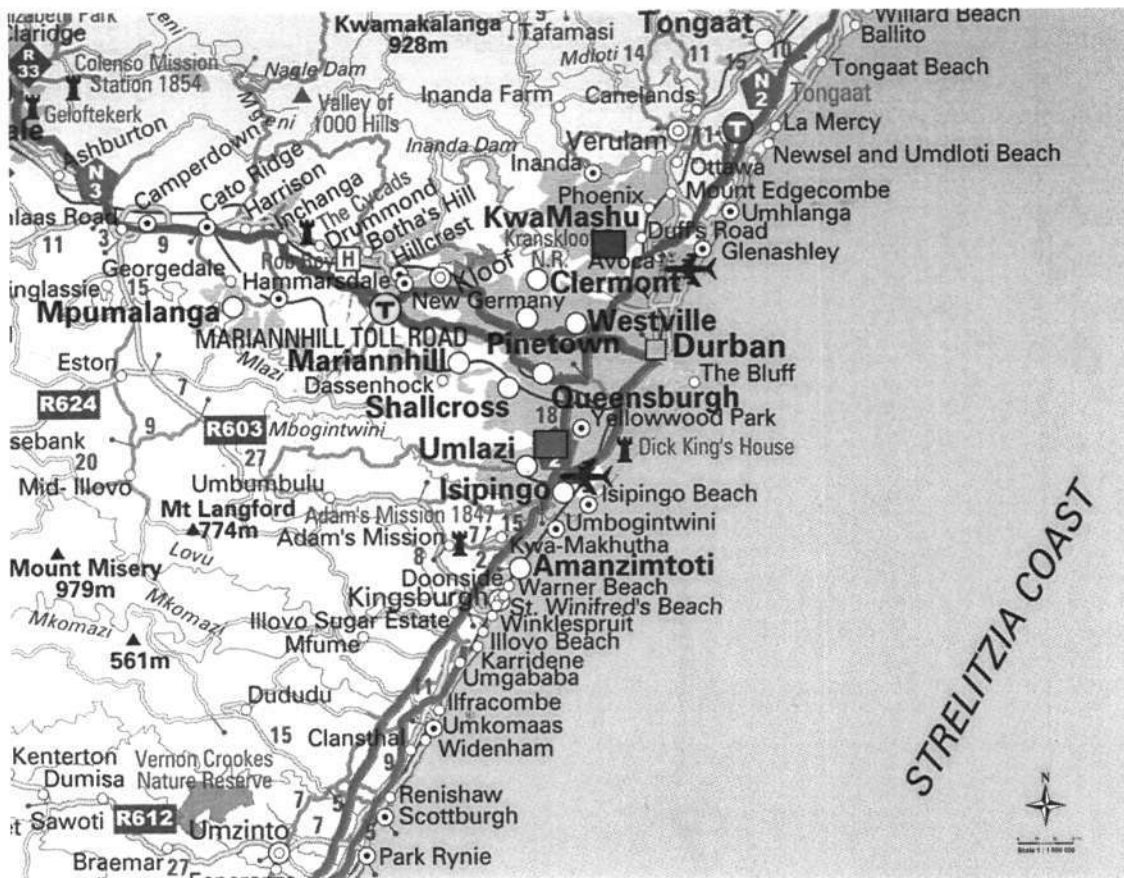
Figure 10: Playground

Photograph: Kathryn Gush

Figure 11: Computer Centre

Photograph: Kathryn Gush

Figure 12: Vegetable Garden

Location Map

Reference: MapStudio

■ - Lamontville Centre

Figure 13: Location of Lamontville Centre

APPENDIX I

LIST OF CENTRE SELECTION CRITERIA

(Reference: MiET, 2005b: Annexure B2)

ANNEXURE B2

Criteria for the selection of sites and venues for district and satellite education centres

SELECTING A VENUE:

Criteria for district and satellite centres[1]

- Is the site central to a significant number of schools and particularly under-resourced rural schools?
- Is the site accessible to surrounding schools? (Are there good roads and transport such as taxis or buses from surrounding schools to the centre?)
- Is the centre on a good road that can provide access to large trucks and other delivery vehicles?
- Is Eskom power available?
- Are telephone lines available in the area?
- Have local stakeholders been consulted and are they happy with the selection of the site?
- Will the centre not duplicate other similar facilities that are available in the area?

Additional criteria for district centres

- Is the site central and accessible to most areas in the district?
- Is it accessible to the district office?

SELECTING AN EXISTING VENUE TO HOUSE A CENTRE:

In selecting a site and venue, regions and districts should try to make use of existing buildings wherever possible. If an existing building is selected, the following additional criteria should be considered:

- Does it have enough space for a resource centre?
- Does it have electricity or another reliable source of power?
- Is the electricity supply earthed and is there lighting protection?
- Are there enough telephone lines and is the telephone connection reliable?
- Is there adequate security?
- Have local stakeholders agreed to the establishment of an education centre in the building?[2]
- If it is an existing institution, is it well managed and governed?
- Is there a commitment from the existing institution to house the centre?
- If it does not meet the criteria above, can it be extended and upgraded?

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[1] There will be an average of one district centre, and nine satellite centres per district over the five-year period.
[2] Please note that involvement of local stakeholders is essential for the establishment of sustainable, vibrant centres. Time for this has been built into the business plan submitted to the Royal Netherlands Embassy.

APPENDIX J

PARTICIPATION CHECKLIST

A Checklist for Use in Identifying Participatory Components of Projects

(Reference: Cohen, 2000: 246 – 247)

1. *A range of options for the project planning process:*
    (A) Through initial open discussions with the community of its problems and how to solve them.
    (B) Through a discussion of the project proposal with opinion leaders from the community.
    (C) Through discussions with government/non-government organizations at district /block/project level.
    (D) Project thrust from the outside without discussion.
    (E) Project imposed in absolute disregard of community's wishes.

2. *Who identifies the needs?*
    (A) The people themselves.
    (B) The local opinion leaders.
    (C) A government agency.
    (D) A centrally sponsored scheme.

3. *Extent of resource mobilization for the project:*
    (A) By the community.
    (B) By the community and others.
    (C) Through matching contributions.
    (D) Through massive external assistance.
    (E) With no contribution from the community.

4. *Who identifies project workers?*
    (A) The community with its own criteria.
    (B) The community with imposed criteria.
    (C) Of local persons by outside the implementing agency.
    (D) Appointment of outsiders.

5. *Development of social and/or technical skills:*
    (A) Through short, local pre-service training, followed by regular, on-the-job, in-service training, parallel with the training of trainers from within the community.
    (B) Through short, local pre-service training, followed by regular, on-the-job, in-service training.
    (C) Through an infrastructure for the exchange of information at local level.
    (D) Through pre-service training within the district/town followed by some in-service training.
    (E) Through pre-service training in a remote institution without any follow-up in-service training.
    (F) No training or training in an unfamiliar language.

6. *Project implementation:*
   (A) Under community control (especially in remuneration of project workers).
   (B) Under community supervision.
   (C) With women.
   (D) With some community involvement.
   (E) With no community involvement.

7. *Periodic evaluation/monitoring of progress:*
   (A) By the community.
   (B) Some evaluation by the community and acknowledgement of possible conflict areas in the project.
   (C) Outsiders' evaluation with results reported to the target community.
   (D) Outsiders' evaluation not reported to target community.
   (E) No evaluation.

APPENDIX K

INFORMATION SHEET FOR PARTICIPANTS

Title of Project:
Centering Development: Education Centres Supporting Rural Development in KwaZulu-Natal.

Project Aims:
This project aims to provide an analysis of the Education Centres Supporting Rural Development Project coordinated by the Media in Education Trust and the KwaZulu-Natal Department of Education in relation to the use of ICTs and education in development.

Involvement from Participants:
All participants will only be required to answer questions relating to the Education Centres project. They will not be required to perform any tasks or answer questions of a personal nature. Participation in this study will assist this researcher to gain a clearer understanding of the nature of the Education Centres project in order to provide a detailed analysis of the project.

All transcribed and recorded interviews will only be used for this thesis and subsequent related articles written by Kathryn Gush.

Research data will be kept under lock and key for the duration of the research process and all information that compromises the anonymity will be removed. Respondents will be given the option on the informed consent form if they wish to use a pseudonym.

The names of the respondents who wish to use pseudonyms and the master-grid of pseudonyms will be, for the duration of the research process, be kept under lock and key. Following the successful completion of the research, the master-grid will be destroyed.

Researcher:
Kathryn Gush
Contact No. 084 620 2169

For further information on this research project, please contact:
Ruth Teer-Tomaselli (Project Supervisor)
Contact No. 260 2505

Appendix L

<u>Declaration of Consent</u>

I _____ hereby state that I am willing to participate in an interview for the Masters Research Project conducted by Kathryn Gush, Masters student at the University of Kwazulu-Natal (Student Number: 205520957).

I understand that the information I supply will be used for the purpose of this research project and that at any point during the research period I no longer wish to be involved I may decline to participate and all comments or information provided myself prior to my decision to leave will not be included as part of the research.

_____
Signature of participant   Date:_____

I _____ hereby state that I agree for my real name to be used in this research. This includes use in the thesis and subsequent presentations and publications of this research.

_____
Signature of participant   Date:_____